yeni nesil
SOĞUTUCULAR
new generation
COOLERS

BUZÇELİK

THERMIC EQUIPMENTS INDUSTRY

GENERAL PRODUCT CATALOGUE
GENEL ÜRÜN KATALOĞU

www.buzcelik.com

Doğa;
Tüm canlıların yuvası.
Temiz bir doğamız
olmadan yaşam da olmaz.
Biz de şirket olarak
doğanın değerinin
bilincindeyiz ve
onu korumak için
ürettiğimiz her ürünün
doğaya zarar vermeyen
ham maddelerden
üretilmesine ve
doğa dostu ürünler
olmasına özen
gösteriyoruz.

Nature;
Home of all living things. Without a clean nature, there is no life.
As a company, we are aware of the value of nature and to protect it.
that every product we produce is produced from raw materials that do not harm nature.
and we pay attention to nature-friendly products

For Mobile application, please scan the QR Code.

SEKTÖRDE BİR İLK

Mobil Uygulamamızı İncelemek İçin Lütfen Kodu Okutunuz

Buzçelik, 1982 yılında endüstriyel tip buzdolapları imal ederek üretim faaliyetlerine başlamıştır. Günümüze gelen süreçte kanatlı borulu ısı değiştiricilerindeki faaliyetlerini yoğunlaştırmış ve soğutma endüstrisinin öncüleri arasında ki yerini güçlendirerek konusunda uzmanlaşmıştır.

Farklı teknolojileri içeren bir ürün portföyünün yanı sıra kapsamlı bir destek sunan Buzcelik, gelişmiş makine parkuru, 18.000 m2'nin üzerinde üretim alanı ve verimli iş gücü ile komple tedarik çevrimi için uzman bir çözüm ortağıdır. 1982 yılında kuruluşundan bu yana, üstün kalite ve kusursuz ürün sunmayı ilke edinerek müşterilerinin memnuniyetini sağlamayi hedeflemektedir.

Buzçelik, sürdürülebilir bir soğutma endüstrisi için, yenilikçi ürünleri ile stratejik hedef temelleri ışığında yenilikler sunmak adına kaliteyi dünya çapında geliştirmektedir. Avrupa standartlarında nitelikli ürünler ve imalat konsepti ile uzun vadeli stratejik hedefleri tanımlarken, küresel alanda güçlü bir profil ortaya koyarken, sadece Türkiye'de değil küresel pazarda da liderliği hedefleyen oyuncu olma yolunda emin adımlarla ilerlemektedir.

Kuruluşundan bu yana iş etiğiyle uzun vadeli ilişkiler kurmayı temel ilke olarak kabul ederek sektörün önde gelen şirketlerinden biri olmuştur ve kendini sektörde ilerletmek için hayati önlemler almıştır.

Sektörel koşulları göz önüne alan Buzçelik, bazı önemli özellikleriyle ayrılmaktadır:

Ar-Ge faaliyetleri sürekli aralıklarla müşteri ihtiyaçlarına göre geliştirilmiş ve genişletilebilir ürün yelpazesi, "Profesyonel Yeterlilik" ile birlikte "Makul Maliyet" avantajı sunan fiyat politikası, Müşteri gereksinimlerine hızlı cevap veren üretim politikası ve kısa vadede teslimat politikası, Müşterilerin ürünleri kolayca görüntüleyebilmelerini ve hem teknik hem de fiyat verilerine ulaşmalarına yardımcı seçim yazılımlarıyla tüm dijital platformları (web, ios, android, masaüstü) destekler.

Buzçelik, verimliliği ve güvenilirliği sürdürülebilir bir şekilde işlemek ve yönetmek için entegre bir teknoloji kullanır.

Ürünlerin kapasiteleri, en güncel Unilab Coils tasarım yazılımı ile sürekli olarak güncellenir ve gerçek trendlere uyarlanarak hesaplanır. Ürünler uygulama koşulları dikkate alınarak tasarlanır.

Standartların belgelendirilmesi sürecinde Buzçelik, rekabetçi bir organizasyon olarak etkin işgücü, müşteriler, bayiler ve tedarikçilerle bu hedeflere ulaşmak için çalışır. Buzçelik'in kalite anlayışı, kalite yönetim anlayışının sanayi işletmelerinde önemli bir kalite göstergesi olan TS-EN ISO 9001-2015 standardı ile CE, EAC gibi bölgesel işaretlemelere haiz üretim kalitesini en üst düzeyde sunarak, global olma sorumluluğuyla kurulmuştur.

Buzçelik, üretim konseptini şu ilkelerle içselleştirir;
Değişen pazar koşulları hakkındaki yenilikleri takip eder, Müşteri odaklı yaklaşımla rekabetçi fiyat sunmak için temeller atar,Mesleki sağlık ve emniyetten taviz vermeden yüksek verimlilikteki çevre dostu ürünleri, yüksek kalitede ve düşük güç tüketimiyle üretir.

Buzçelik'in büyümesinin temeli, yenilikçi gücüne bağlıdır ve ana hedefi beklentileri aşarak müşteri memnuniyetini artırmaktır. Buzcelik, müşterilerinin karşılaştığı zorlukları, destek altyapısı kapsamında en doğru çözümü bulana kadar tutku ve sebatla değerlendirir.

Buzçelik, gelecekte de müşterilerine, çalışanlarına, sanayiye, topluma ve çevreye katma değer sağlamaya devam edecek, uzun vadeli planlamalar ve gerekli yatırımları gerçekleştirerek güven sembolü olmaya devam edecektir. Buzcelik'i sektör için güçlü ve güvenilir bir ortak yapan şey budur.

VİZYONUMUZ

Büyümesini sürdüren, lider, güçlü, itibarlı, dünya standartlarında bir şirket olmak, Havacılık ve uzay sanayiinde kullanılan ısı eşanjörleri imalatında lider organizasyon olmak, Bilinen sınırları aşan keşifler yaparak ısı transferi yasalarının azami verimliliğine yönelik gayret göstermek, Ar-Ge faaliyetleri sürdürerek insanlığın ve doğanın yararına ürünlerimiz hakkındaki tüm geçmişi ve tecrübelerimizi kullanmak.

MİSYONUMUZ

Sürdürülebilirlik ilkesiyle ısı değiştiriciler üretmek, ürünlerimizde sürekli iyileştirmeyi taahhüt ederek müşterilerimize ve iş ortaklarımıza uzun vadeli ve sürekli başarıyı sunmak.

WHO WE ARE

As one of the leading suppliers in the field of cooling technologies in Turkey, Buzcelik commenced the production activities by manufacturing industrial type refrigerators in 1982. Buzcelik intensified the activities on finned tubular heat exchangers and it has been located itself between pioneers of cooling industry in course of time by specializing the procurement process in manufacturing of;

With a product portfolio that includes different technologies, as well as a comprehensive offering in support, Buzcelik is an expert solution partner for the complete procurement cycle with the improved machinery park, over 18.000 m2 production site and efficient labor force. Since its inception in the year 1982, it has provided customers' satisfaction faithfully by offering superior quality and faultless products.

Buzcelik improves quality worldwide to deliver innovations for a connected cooling industry in the light of the basis on the strategic objective with its innovative products.

While defining long-term strategic objectives with the qualified products and manufacturing concept in European Standards as putting forth powerful profile in the global arena, it is firmly advancing in line to be player aiming leadership not only in Turkey but also in the global market.

It accepts as a basic principle to establish long-term relationships with the business environment since its establishment and has been one of the leading companies in the industry and has taken vital steps to move forward on its own and the sector.

Considering the sectoral conditions Buzcelik is discriminated from the competitors by some significant specifications:

Improving and expandable product range according to customer requirements by incessantly R&D activities, The price policy that offers "Reasonable Money" advantage along with "Professional Value", The manufacturing policy that responds to the customer needs rapidly and realize delivery in short term, Supporting all digital platforms (web, ios, android, desktop) software that allow the customers to view the products easily and helps reaching both technical and price data.

Buzcelik uses integrated technology to process and manage maximum productivity and reliability sustainably. By investing R&D with big major obedience for keeping to be innovative and dissimilar in the cooling industry it provides products and services at universal quality and standards with all our people we offer the customers long-term and unremitting success.

The capacities of the products are calculated precisely via Unilab Coils design software that updating constantly and adapting to actual trends and also designed by taking the coils application conditions into consideration.

Certificating the standards Buzcelik, as a competitive organization, increase the effort to reach to these targets with the effective labor force, customers, dealers and suppliers. The quality approach of Buzcelik has been established on the TS-EN ISO 9001-2015 standard with CE marking which is an important quality indicator for quality management approach industrial enterprises in according to offer production quality at the highest level with the responsibility of being a global manufacturing center.

The basis for the Buzcelik's growth depends on its innovative strength and its main goal is to exceed expectations and to improve customer satisfaction. Buzcelik consider its customers' challenges with passion and persistence until the right solution is found on the scope of support infrastructure.

Regardless of the motion task that customers face anywhere in the world, they will always find a Buzcelik solution with the global experience and the appropriate know-how from industry and variety of technologies.

On this continuum Buzcelik will continue to provide value-added for the customers, employees, industry, society and the environment in the coming period and being a symbol of trust by making to plan over the long term and to undertake significant up-front investments in the safeguarding of its future. This is what makes Buzcelik a strong and reliable partner for the industry.

OUR VISION

To become a leading, strong, reputable, world-class company which grows through the difference that we make, To be leader organization in the field of manufacturing of the heat exchangers used in aeronautical and aerospace industry, To make efforts intended for maximum efficiency of heat transfer laws by performing discoveries beyond the known borders and To use our all background and experience on the products for benefit of the humanity and nature by carrying on R&D activities.

OUR MISSION

Producing Heat exchangers with the princile of sustainability, offering long-term and continuous to our customers and business partners by committing to continuous improvement of our products.

INDEX

Yeni Nesil Soğutucular

BUZÇELİK
THERMIC EQUIPMENTS INDUSTRY

TİCARİ TİP KONDENSERLER

Commercial Type Condensers

MKK-MKL-MKS
LKK-LKL-LKS
KK-KL-KS
SERIES

BATARYA

• Ø5/16" ve Ø3/8" bakır boru.
• V-tipi alüminyum lamel.
• Giriş - çıkış kolektör malzemesi bakırdır.
• Standart ürünler için izin verilen en yüsek çalışma basıncı Ps=21Bar.
• Şaşırtmalı boru dizilimi.
• Bataryalarda R404A, R407C, R407F, R507F, R22, Rl 34A, R449A, R290A, R41 OA soğutucu gazlarla çalışmaya uygun tasarım.
• Opsiyonel olarak 1,8 mm ile 4mm aralığında farklı hatveler seçeneği.

Coil

• Ø5/16" & Ø3/8" copper tube.
• 'V" type aluminum fins.
• Header inlet and outlet tube connections made of copper.
• maximum operating pressure 21 bar for standard products.
• Staggered copper tubes.
• The coil circuits are designed for refrigerants R404A, R407F, R507C, R22, R134A
• Different fın spacing can be selected as an option for 1,8mm to 4mm.

KASETLEME

• Galvaniz çelik üzerine elektrostatik RAL 7035 boyalıdır.
• Galvanizli Çelik, Paslanmaz Çelik ve Alüminyum levha.
• Fan bölmeleri sac levhalar ile birbirinden ayrılmış ve duran fanların ters dönüş etkisi önlenmiştir.

Casing

• Electrostatic powder coated RAL 7035 galvanized steel.
• Galvanized Steel, Stainless Steel and Aluminum sheet
• Each fan chamber is separated by internal baffle plates to prevent induced wind milling of off-cycle fans

FAN

• 0200-0250-0300-0350-0400-0450-0500 mm / 230V-50HzMonofase / 900, 1200, 1400 d/d fanlar.
• Opsiyonel seçimler Buzçelik Teknik Uzmanı tarafından teyit edilmelidir.
• Standart veya düşük ses seviyeli bakım gerektirmeyen fan seçeneği.
• İsteğe bağlı AC ya da EC fan motor seçenekleri.
• Koruma sınıfı IP54, fan konstrüksiyonu izolasyon malzeme sınıfı F.
• Opsiyonel olarak seçilebilir fan aksesuar çeşitleri (FlowGrid gürültü düşürücüler vb.)
• Çalışma aralığı -40°C/+50°C'dir.

Fan

• 0200-0250-0300-0350-0400-0450-0500 mm / 230V-50Hz-Monofase / 900, 1200, 1400 d/d fans.
• Selections should be confirmed by your Buzçelik Technical Specialist.
• Standard or low noise level are available.
• Different kinds of motors available as optional. (EC or AC)
• Motor protection IP54 insulation class F
• Different kinds of accessories available as optional. (FlowGrid ete.)
• Working conditions -40°C/+50°C.

KAPASİTE

Nominal kapasiteler ΔT= 15°C koşulunda R404A gaza göre Eurovent EN 328 standartları dikkate alınarak verilmiştir.

Capacity

The nominal capacities calculated according to Eurovent EN328 standards that refer to ΔT=15°C condition and are valid for R404A.

SEÇENEKLER

• Farklı dış kabin rengi,
• Farklı boru et kalınlığı ve hatve,
• Monofaze 220V 1 ~ 50Hz, Trifaze 400V 3~ 50Hz fan seçeneği.
• Katalogda belirtilmeyen özel ürünler için lütfen satış departmanı ile irtibata geçin.

Options

• Different casing color.
• Other tube wall thicknesses and fin spacing on request.
• Mono phase 220V 1 ~ 50Hz fan or three phase 400V 3~ 50Hz fan.
• Please keep in touch with our sales department about your special needs that are not mentioned in the catalogue.

NOT

Montaj, Bakım - Taşıma ve Kaldırma detayları için kullanım Kılavuzuna başvurunuz.

Note

Please read "Installation, Operation and Maintenance Instructions" for mounting and maintenance.

AKSESUARLAR

• Alüminyum veya paslanmaz çelik kabin,
• Epoxy boya,

Accessories

• Casing made of aluminum or stainless steel.
• Epoxy resin coated aluminum fins.

Options As Listed Are Available On Request For Assistance Please Contact Buzçelik Branch
Talep Üzerine Listelenen Özelliklerin Üretimi Mümkündür. Yardım İçin Lütfen Buzçelik Satış Birimi İle İletişime Geçiniz.

ADLANDIRMA
CLASSIFICATION

K K 18 35 11 1

Ticari Tip Commercial Type	Geometri Geometry	Tanım Fan Diameter	Fan Çapı Fan Diameter	Fan Dizisi Description	Ürün Numarası Product Number
K : Ticari Tip K : Commercial Type	K : 3228-3/8” L : 2522-3/8” S : 2522-5/16”	Yüzey alanı yada kompresör gücü Surface area or compressor HP power	Q ... cm	Sütun x Satır Column x Row	

KAPASİTE STANDARTLARI
CAPACITY STANDARD

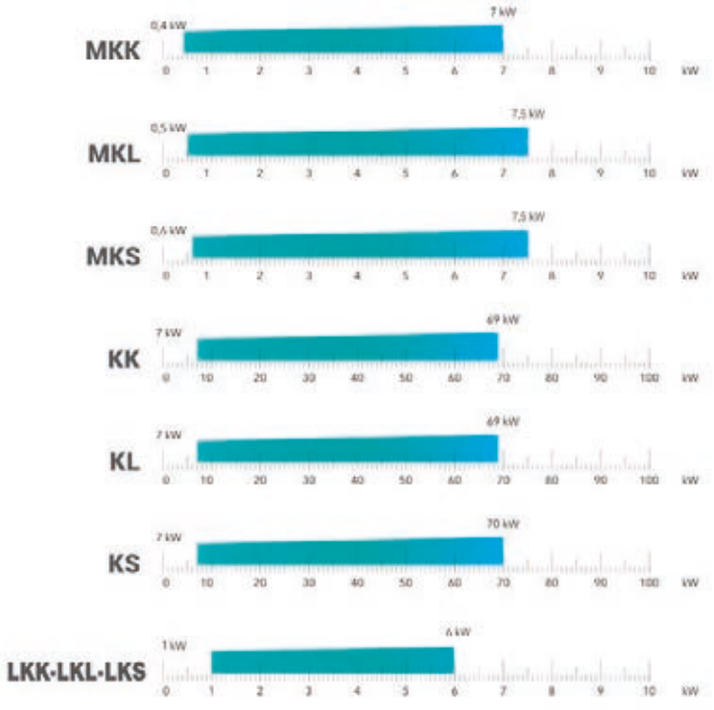
Akışkan	:	R404A
Hava Giriş Sıcaklığı (Tai)	:	25°C
Kondenzasyon Sıcaklığı (Tc)	:	40°C
ΔT = Tc-Tai	:	40°C - 25°C = 15°C
Rakım	:	0m

KONDENSER SEÇİMİ
Nominal condenser kapasitesi aşağıdaki formüller vasıtası ile hesaplanabilir.
Formül 1
Qnk = [(Q+N) x f2 x f3 x f5) / (f4 x f6)
Qnk: Nominal kondenser kapasitesi
Q: Kompresörün soğutma kapasitesi
N : Kompresör motorunun çektiği güç
Q ve N kompresör kataloglarından bulunabilir.
Detaylı bilginin olmadığı durumlarda Formül 2 uygulanır.
Formül 2
Qnk=[Q x f1 x f2 x f3 x f5] / (f4 x f6)

Refrigerant	:	R404A
Air inlet Temperature (Tai)	:	25°C
Condensation Temperation (Tc)	:	40°C
ΔT=Tc-Tai	:	40°C - 25°C = 15°C
Altitude	:	0m

CONDENSER SELECTION
Nominal condenser capacity can be calculated by using formulas below.
Formul 1
Qnk = [(Q+N) x f2 x f3 x f5) / (f4 x f6)
Qnk: Nominal condenser capacity
Q: Refrigerating capacity of compressor
N : Absorbed compressor power
These data can be obtained from the compressor catalogues. If absorbed compressor power is unknown, please use Formula 2.
Formul 2
Qnk=[Q x f1 x f2 x f3 x f5] / (f4 x f6)

ÜRÜN KAPASİTE ARALIĞI / CAPACITY RANGE



(f_1) FAKTÖRÜ/ (f_1) FACTOR

Açık Kompresör/ Open Compressors							
Evaporasyon Sıcaklığı Evaporation Temperature °C	Kondenzasyon Sıcaklığı Condensation Temperature °C						
	30	35	40	45	50	55	60
-35	1,36	1,41	1,44	-	-	-	-
-30	1,31	1,36	1,40	1,44	-	-	-
-25	1,27	1,32	1,36	1,41	1,45	-	-
-20	1,24	1,28	1,31	1,35	1,39	1,44	-
-15	1,20	1,24	1,27	1,31	1,35	1,39	1,44
-10	1,18	1,21	1,24	1,27	1,31	1,35	1,40
-5	1,15	1,18	1,21	1,24	1,27	1,31	1,36
o	1,13	1,15	1,18	1,21	1,24	1,27	1,31
5	1,10	1,13	1,15	1,18	1,21	1,24	1,28
10	1,08	1,11	1,13	1,15	1,17	1,21	1,24

Hermetik ve Yarı-Hermetik Kompresör/ Hermetic and Semi-Hermetic Compressors							
Evaporasyon Sıcaklığı Evaporation Temperature °C	Kondenzasyon Sıcaklığı Condensation Temperature °C						
	30	35	40	45	50	55	60
-40	1,64	1,69	1,76	1,86	2,03	-	-
-35	1,56	1,61	1,66	1,73	1,83	-	-
-30	1,48	1,53	1,57	1,62	1,69	-	-
-25	1,42	1,46	1,5	1,54	1,6	1,68	-
-20	1,37	1,4	1,44	1,48	1,53	1,6	-
-15	1,32	1,35	1,38	1,43	1,48	1,53	1,58
-10	1,28	1,31	1,34	1,37	1,42	1,46	1,52
-5	1,23	1,26	1,29	1,33	1,37	1,41	1,45
o	1,2	1,22	1,25	1,28	1,32	1,36	1,39
5	1,16	1,19	1,21	1,24	1,28	1,31	1,34
10	1,13	1,15	1,18	1,21	1,23	1,26	1,29

(f_2) FAKTÖRÜ/ (f_2) Factor = 15/T1

(f_3) FAKTÖRÜ/ (f_3) FACTOR

Hava Giriş Sıcaklığı Faktörü / Air inlet Temperature Factor								
T(°C)	15	20	25	30	35	40	45	50
f_3	0,97	0,98	1	1,02	1,04	1,06	1,08	1,1

(f_4) FAKTÖRÜ/ (f_4) FACTOR

Soğutucu Akışkan Faktörü / Refrigerant Factor					
R	R134A	R22	R404A/R507	R407A	R407C
f_4	0,93	0,96	1	0,83	0,87

(f_5) FAKTÖRÜ/ (f_5) FACTOR

Rakım Faktörü / Altitude Factor							
H(m)	0	500	1000	1500	2000	2500	3000
f_5	1	1,04	1,07	1,11	1,16	1,21	1,25

(f_6) FAKTÖRÜ/ (f_6) FACTOR

Lamel Malzemesi Fin Material	Alüminyum Aluminum	Kaplı Alüminyum Coated Aluminum	Bakır Copper
f_6	1	0,97	1,03

Tablo-4 Lamel Malzemesi için Düzeltme Faktörleri Table-4 Fin Material Correction Factors			
Lamel Malzemesi Fin Material	Alüminyum Aluminum	Kaplı Alüminyum Coated Aluminum	Bakır Copper
K_3	1	0,97	1,03

KONDENSER SEÇİMİ
Nominal condenser kapasitesi aşağıdaki formüller vasıtası ile hesaplanabilir.

Formül 1
Qnk = [(Q+N) x f2 x f3 x f5) / (f4 x f6)
Qnk: Nominal kondenser kapasitesi
Q: Kompresörün soğutma kapasitesi
N : Kompresör motorunun çektiği güç
Q ve N kompresör kataloglarından bulunabilir.
Detaylı bilginin olmadığı durumlarda Formül 2 uygulanır.
Formül 2
Qnk=[Q x f1 x f2 x f3 x f5] / (f4 x f6)

CONDENSER SELECTION
Nominal condenser capacity can be calculated by using formulas below.

Formul 1
Qnk = [(Q+N) x f2 x f3 x f5) / (f4 x f6)
Qnk: Nominal condenser capacity
Q: Refrigerating capacity of compressor
N : Absorbed compressor power
These data can be obtained from the compressor catalogues. If absorbed compressor power is unknown, please use Formula 2.
Formul 2
Qnk=[Q x f1 x f2 x f3 x f5] / (f4 x f6)

ÖRNEK SEÇİM / SELECTION EXAMPLE	
Kompresörün soğutma kapasitesi / Refrigerating Capacity of Compressor	11581 .Watt/h
Kompresör Motorunun Çektiği Güç/ Absorbed Compressor Power	4615..Watt/h
Kompresör Tipi/ Compressor type	Semi-Hermetic
Evaporasyon Sıcaklığı/ Evaporation Temperature	-10°C
Hava Giriş Sıcaklığı/ Air inlet Temperature	+30°C
Kondenzasyon Sıcaklığı/ Condensation Temperature	+40°C
Rakım/ Altitude	1000m
Soğutucu Akışkan/ Refrigerant	R404A
Lamel Malzemesi/ Fin Material	Aluminum
f2=1,5 /f3= 1,02 /f4=1 /f5=1,07 /f6=1	26514.Wat t/h
Seçilen Kondenser / Selected Condenser	KK84 45212

MKK Serisi
MKK Serie

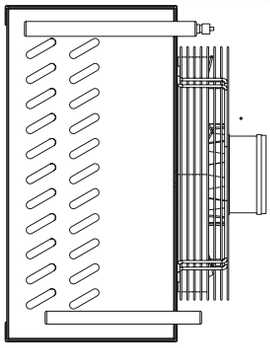
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

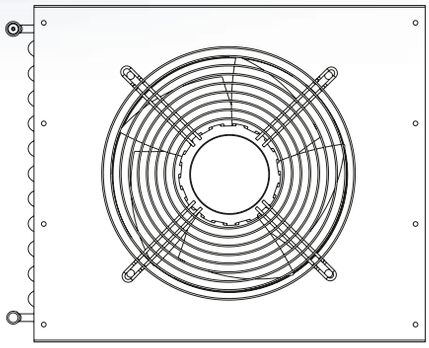
Batarya Özellikleri
Heat Exchanger Specifications

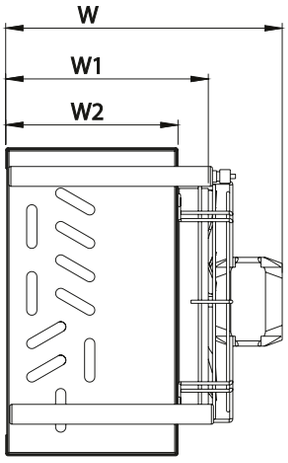
Bakır Boru / Copper Pipe : 3/8"

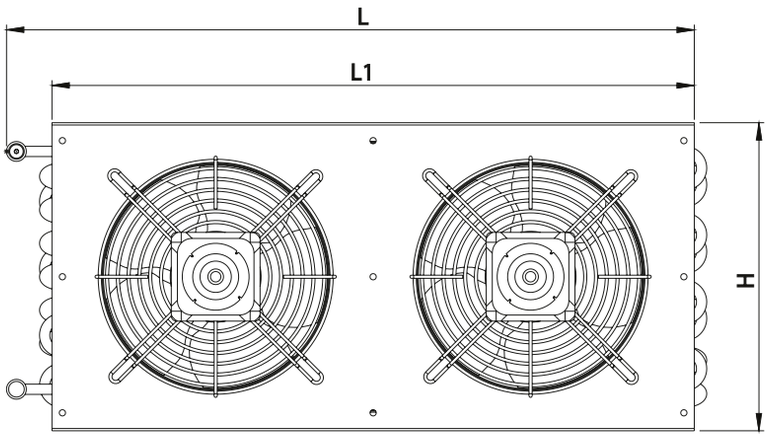
Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity	**Fanlar** Fans			
				Fan Sayısı Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Hava Debisi** Air Flow
	(m²)	(dm³)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)
MKK 1/5	1,31	0,20	400	-	200	-	400
MKK 1/4	1,98	0,20	610		200	-	420
MKK 1/3	2,50	0,30	960		250	-	690
MKK 1/2	3,75	0,50	1.340		250	-	620
MKK 3/4	4,99	0,60	1.650		250	-	600
MKK 1HP	6,25	0,80	2.660		300	-	1.290
MKK 1/5 20110	1,31	0,20	400	1	200	40	400
MKK 1/4 20111	1,98	0,20	610		200	40	420
MKK 1/3 25112	2,50	0,30	960		250	69	690
MKK 1/2 25113	3,75	0,50	1.340		250	69	620
MKK 3/4 25114	4,99	0,60	1.650		250	69	600
MKK 5 30112	5,42	0,65	2.411		300	72	1.113
MKK 1HP 30115	6,25	0,80	2.660		300	72	1.290
MKK 7,5 30117	7,78	0,70	2.742		300	72	1.500
MKK 8,5 30118	8,45	0,90	2.981		300	72	1.420
MKK 10 30119	10,14	1,10	3.478		300	72	1.546
MKK 12 35120	12,04	1,40	5.300		350	165	2.161
MKK 14 35121	13,94	1,60	5.954		350	165	2.355
MKK 16 35122	15,76	1,60	6.310		350	165	2.306
MKK 1/3 20212	3,23	0,40	1.210	2	200	80	750
MKK 1/2 20213	4,79	0,50	1.570		200	80	720
MKK 3/4 20214	4,85	0,60	1.720		200	80	730
MKK 1HP 20215	6,47	0,70	2.060		200	80	700
MKK 7,5 25217	7,44	0,80	2.770		250	138	1.300
MKK 8,5 25218	8,45	0,80	2.920		250	138	1.250
MKK 10 25210	10,56	1,10	3.390		250	138	1.310
MKK 12 25212	11,44	1,20	3.570		250	138	1.350
MKK 14 30214	13,73	1,50	6.280		300	144	3.180
MKK 16 30216	15,83	2,00	6.770		300	144	2.990



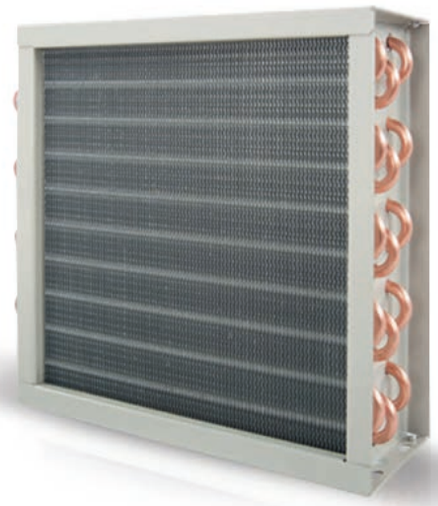






Model Model	**Boyutlar** Dimensions						**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**L1**	**W1**	**W2**	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
MKK 1/5	29	23	13	26	-	11,5	3/8	3/8	-
MKK 1/4	32	30	13	29	-	11,5	3/8	3/8	-
MKK 1/3	38	30	13	35,5	-	12,5	3/8	3/8	-
MKK 1/2	38	30	14	35,5	-	12,5	3/8	3/8	-
MKK 3/4	38	30	18	35,5	-	16,5	3/8	3/8	-
MKK 1HP	38	35	19,5	35,5	-	18	3/8	3/8	-
MKK 1/5 20110	29	23	22	26	15	11,5	3/8	3/8	E
MKK 1/4 20111	32	30	22	29	15	11,5	3/8	3/8	E
MKK 1/3 25112	38	30	23	35,5	16	12,5	3/8	3/8	E
MKK 1/2 25113	38	30	23	35,5	16	12,5	3/8	3/8	E
MKK 3/4 25114	38	30	27	35,5	20	16,5	3/8	3/8	E
MKK 5 30112	38	35	27	35,5	20	16,5	3/8	3/8	E
MKK 1HP 30115	38	35	30	35,5	21,5	18	3/8	3/8	E
MKK 7,5 30117	48	35	27	42	20	16,5	5/8	5/8	D
MKK 8,5 30118	48	35	30	42	22	19	5/8	5/8	D
MKK 10 30119	48	41	31	42	22	19	19	5/8	D
MKK 12 35120	56	41	31	50	26	22	19	5/8	E
MKK 14 35121	56	47	33	50	26	22	19	5/8	E
MKK 16 35122	56	47	33	50	26	22	19	5/8	D
MKK 1/3 20212	57	23	23	54	16	12,5	3/8	3/8	E
MKK 1/2 20213	57	23	23	54	16	12,5	3/8	3/8	E
MKK 3/4 20214	57	23	23	54	16	12,5	3/8	3/8	E
MKK 1HP 20215	57	23	27	54	20	16,5	3/8	3/8	E
MKK 7,5 25217	67	30	27	61,5	20	16,5	5/8	5/8	E
MKK 8,5 25218	67	30	27	61,5	20	16,5	5/8	5/8	E
MKK 10 25210	67	35	27	61,5	20	16,5	19	5/8	E
MKK 12 25212	76	35	27	70,5	20	16,5	19	5/8	E
MKK 14 30214	77	41	27	71,5	20	16,5	19	5/8	D
MKK 16 30216	77	41	30	71,5	22,5	19	22	19	D

MKL Serisi
MKL Serie



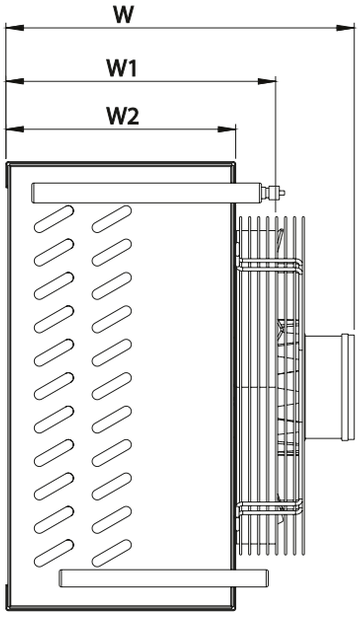
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

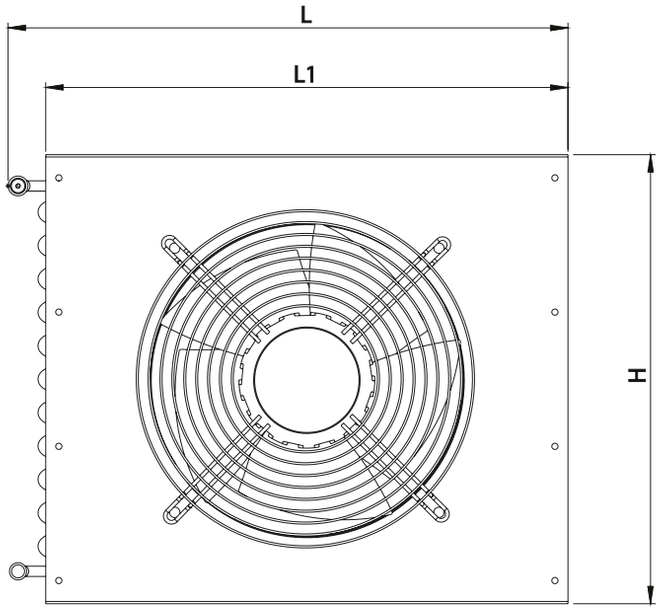
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8"

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity	**Fanlar** Fans			
				Fan Sayısı Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Hava Debisi** Air Flow
	(m²)	(dm³)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)
MKL 1/5	1,24	0,20	530	-	200	-	380
MKL 1/4	1,60	0,30	650		200	-	400
MKL 1/3	2,45	0,40	1.180		250	-	670
MKL 1/2	3,68	0,60	1.560		250	-	610
MKL 3/4	4,91	0,80	1.840		250	-	590
MKL 1HP	5,80	1,00	3.080		300	-	1.230
MKL 1/5 20110	1,24	0,20	530	1	200	40	380
MKL 1/4 20111	1,60	0,30	650		200	40	400
MKL 1/3 25112	2,45	0,40	1.180		250	69	670
MKL 1/2 25113	3,68	0,60	1.560		250	69	610
MKL 3/4 25114	4,91	0,80	1.840		250	69	590
MKL 1HP 30115	5,80	1,00	3.080		300	72	1.230
MKL 7,5 30117	7,47	1,20	3.358		300	72	1.300
MKL 8,5 30118	8,66	1,20	3.515		300	72	1.250
MKL 1/3 20212	2,59	0,50	1.280	2	200	80	750
MKL 1/2 20213	3,79	0,60	1.600		200	80	720
MKL 3/4 20214	3,88	0,70	1.750		200	80	720
MKL 1HP 20215	5,18	1,00	2.090		200	80	700
MKL 7,525217	7,43	1,20	3.330		250	138	1.300
MKL 8,5 25218	8,67	1,20	3.540		250	138	1.250
MKL 10 25210	10,25	1,40	3.890		250	138	1.300
MKL 12 25212	11,85	1,70	4.150		250	138	1.320
MKL 14 30214	14,03	2,10	6.940		300	144	2.400
MKL 16 30216	16,19	2,40	7.520		300	144	2.570





Model Model	**Boyutlar** Dimensions						**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**L1**	**W1**	**W2**	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
MKL 1/5	29	23	13	26	-	11,5	3/8	3/8	-
MKL 1/4	32	23	13	29	-	11,5	3/8	3/8	-
MKL 1/3	38	30	13	35,5	-	12,5	3/8	3/8	-
MKL 1/2	38	30	14	35,5	-	12,5	3/8	3/8	-
MKL 3/4	38	30	18	35,5	-	16,5	3/8	3/8	-
MKL 1HP	38	35	18	35,5	-	16,5	5/8	5/8	-
MKL 1/5 20110	29	23	22	26	15	11,5	3/8	3/8	E
MKL 1/4 20111	32	23	22	29	15	11,5	3/8	3/8	E
MKL 1/3 25112	38	30	23	35,5	16	12,5	3/8	3/8	E
MKL 1/2 25113	38	30	23	35,5	16	12,5	3/8	3/8	E
MKL 3/4 25114	38	30	27	35,5	20	16,5	3/8	3/8	E
MKL 1HP 30115	38	35	27	35,5	20	16,5	5/8	5/8	D
MKL 7,5 30117	48	35	27	42	20	16,5	5/8	5/8	D
MKL 8,5 30118	48	35	27	42	20	16,5	5/8	5/8	D
MKL 1/3 20212	57	23	23	54	16	12,5	3/8	3/8	E
MKL 1/2 20213	57	23	23	54	16	12,5	3/8	3/8	E
MKL 3/4 20214	57	23	23	54	16	12,5	3/8	3/8	E
MKL 1HP 20215	57	23	27	54	20	16,5	3/8	3/8	E
MKL 7,525217	67	30	27	61,5	20	16,5	5/8	5/8	E
MKL 8,5 25218	67	30	27	61,5	20	16,5	5/8	5/8	E
MKL 10 25210	67	35	27	61,5	20	16,5	19	5/8	E
MKL 12 25212	76	35	27	70,5	20	16,5	19	5/8	E
MKL 14 30214	77	35	27	71,5	20	16,5	19	5/8	D
MKL 16 30216	77	410	28,5	71,5	22,5	19	22	19	D

MKS Serisi
MKS Serie

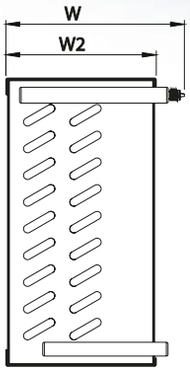
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

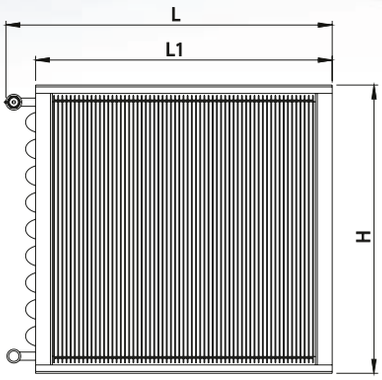
Batarya Özellikleri
Heat Exchanger Specifications

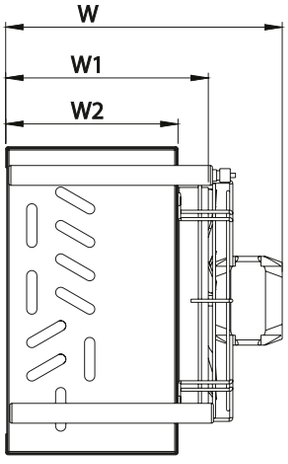
Bakır Boru / Copper Pipe : 5/16"

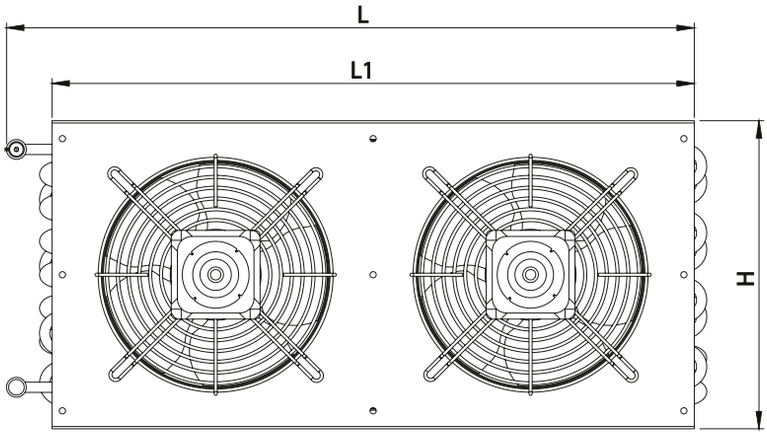
Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity	**Fanlar** Fans			
				Fan Sayısı Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Hava Debisi** Air Flow
	(m²)	(dm³)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)
MKS 1/5	1,47	0,1	547	-	200	-	380
MKS 1/4	1,88	0,2	667		200	-	400
MKS 1/3	2,90	0,3	1.154		250	-	680
MKS 1/2	4,35	0,4	1.545		250	-	620
MKS 3/4	6,27	0,6	1.861		250	-	590
MKS 1HP	6,37	0,7	3.052		300	-	1.230
MKS 1/5 20110	1,47	0,1	547	1	200	40	380
MKS 1/4 20111	1,88	0,2	667		200	40	400
MKS 1/3 25112	2,90	0,3	1.154		250	69	670
MKS 1/2 25113	4,35	0,4	1.545		250	69	610
MKS 3/4 25114	6,27	0,6	1.861		250	69	590
MKS 1HP 30115	6,37	0,7	3.052		300	72	1.230
MKS 9 30117	8,94	0,8	3.620		300	72	1.300
MKS 10 30118	10,00	0,9	3.720		300	72	1.250
MKS 1/3 20212	3,11	0,3	1.287	2	200	80	750
MKS 1/2 20213	4,67	0,5	1.709		200	80	720
MKS 3/4 20214	5,43	0,5	1.892		200	80	720
MKS 1HP 20215	6,96	0,7	2.132		200	80	700
MKS 9 25217	8,94	0,8	3.325		250	138	1.300
MKS 10 25218	10,23	0,8	3.592		250	138	1.250
MKS 12,5 25210	12,50	1,1	3.890		250	138	1.300
MKS 14,5 25212	14,40	1,4	4.137		250	138	1.320
MKS 16,5 30214	16,69	1,5	6.734		300	144	2.400
MKS 18,5 30216	18,49	1,9	7.572		300	144	2.570









Model Model	**Boyutlar** Dimensions						**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**L1**	**W1**	**W2**	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
MKS 1/5	29	23	13	26	--	11,5	5/16"	5/16"	-
MKS 1/4	32	23	13	29	--	11,5	5/16"	5/16"	-
MKS 1/3	38	30	13	35,5	--	12,5	5/16"	5/16"	-
MKS 1/2	38	30	14	35,5	--	12,5	5/16"	5/16"	-
MKS 3/4	38	30	18	35,5	--	16,5	5/8"	5/8"	-
MKS 1HP	38	35	18	35,5	--	16,5	5/8"	5/8"	-
MKS 1/5 20110	29	23	22	26	15	11,5	5/16"	5/16"	E
MKS 1/4 20111	32	23	22	29	15	11,5	5/16"	5/16"	E
MKS 1/3 25112	38	30	22	35,5	15	12,5	5/16"	5/16"	E
MKS 1/2 25113	38	30	23	35,5	16	12,5	5/16"	5/16"	E
MKS 3/4 25114	38	30	27	35,5	20	16,5	5/8"	5/8"	E
MKS 1HP 30115	38	35	27	35,5	20	16,5	5/8"	5/8"	D
MKS 9 30117	48	35	27	42	20	16,5	5/8"	5/8"	D
MKS 10 30118	48	35	27	42	20	16,5	5/8"	5/8"	D
MKS 1/3 20212	57	23	22	54	15	12,5	5/16"	5/16"	E
MKS 1/2 20213	57	23	23	54	16	12,5	5/16"	5/16"	E
MKS 3/4 20214	57	23	23	54	16	12,5	5/16"	5/16"	E
MKS 1HP 20215	57	23	27	54	20	16,5	5/8"	5/8"	E
MKS 9 25217	67	30	27	61,5	20	16,5	5/8"	5/8"	E
MKS 10 25218	67	30	27	61,5	20	16,5	5/8"	5/8"	E
MKS 12,5 25210	67	35	27	61,5	20	16,5	5/8"	5/8"	E
MKS 14,5 25212	76	35	27	70,5	20	16,5	19	16	E
MKS 16,5 30214	77	35	27	71,5	20	16,5	19	16	D
MKS 18,5 30216	77	41	28	71,5	21	17,5	22	19	D

LKK-LKL-LKS Serisi
LKK-LKL-LKS Serie

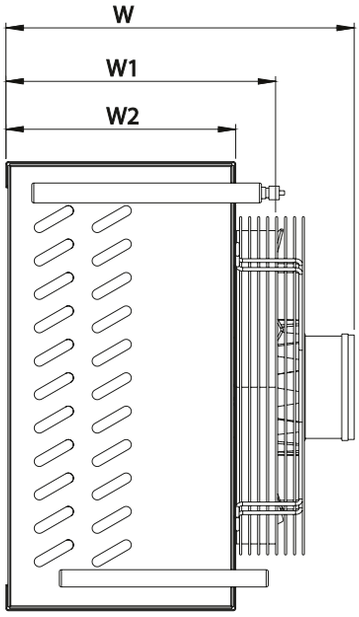
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

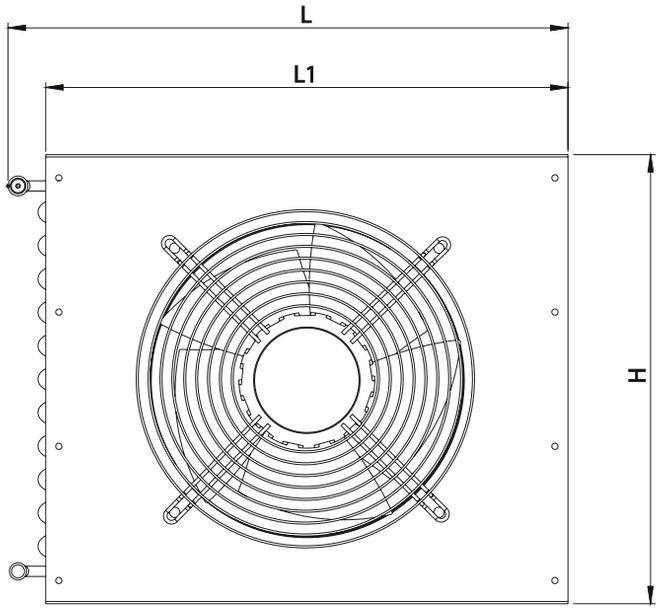
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8"-5/16"

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity	**Fanlar** Fans			
				Fan Sayısı Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Hava Debisi** Air Flow
	(m²)	**(dm³)**	**(Watt)**	**(n)**	**(Ømm)**	**(Watt)**	**(m³/h)**
LKK 6	6,29	0,70	1.877	-	-	-	600
LKK 5 25112	5,38	0,50	1.712	1	250	69	630
LKK 6 25115	6,49	0,70	2.096		250	69	690
LKK 7,5 25117	7,72	0,70	2.108		250	69	620
LKK 8,5 25118	8,36	0,70	1.992		250	69	690
LKK 11 25120	11,41	0,90	2.562		250	69	692
LKK 10 25210	10,32	0,90	3.136	2	250	138	1.290
LKK 12 25212	11,74	0,90	3.280		250	138	1.323
LKK 14 25214	13,77	1,20	3.768		250	138	1.323
LKK 16 25216	15,65	1,20	4.101		250	138	1.374
Bakır Boru / Copper Pipe : 3/8"						**Hatve** / Fin Spacing : 1,8 mm - 4 mm	
LKL 6	5,99	0,90	2.025	-	-	-	630
LKL 6 25115	5,99	0,90	2.025	1	250	69	630
LKL 7,5 25117	7,48	0,90	2.398		250	69	695
LKL 8,5 25118	8,48	1,00	2.621		250	69	702
LKL 10 25210	1,90	1,60	4.282	2	250	138	1.295
LKL 12 25212	12,82	1,60	4.669		250	138	1.323
LKL 14 25214	14,54	1,80	5.159		250	138	1.375
LKL 16 25216	15,97	1,90	5.072		250	138	1.312
Bakır Boru / Copper Pipe : 5/16"						**Hatve** / Fin Spacing : 1,8 mm - 4 mm	
LKS 6	6,07	0,60	2.104	-	-	-	683
LKS 6 25115	6,07	0,60	2.104	1	250	69	683
LKS 9 25117	8,69	0,80	2.537		250	69	696
LKS 10 25118	9,74	0,80	2.630		250	69	693
LKS 12 25210	12,99	1,10	4.265	2	250	138	1.300
LKS 14 25212	15,56	1,40	4.678		250	138	1.320
LKS 16 25214	16,26	1,40	4.924		250	138	1.322
LKS 18 25216	18,02	1,50	5.168		250	138	1.362





Model Model	**Boyutlar** Dimensions						**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**L1**	**W1**	**W2**	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
LKK 6	41,5	29	19	39	-	16,5	3/8"	3/8"	-
LKK 5 25112	41,5	29	23	39	16	12,5	3/8"	3/8"	E
LKK 6 25115	42	29	27	38	20	16,5	3/8"	3/8"	E
LKK 7,5 25117	42	29	27	39	20	16,5	3/8"	3/8"	E
LKK 8,5 25118	45	29	27	39	20	16,5	5/8"	1/2"	E
LKK 11 25120	45	29	29,5	39	22,5	19	5/8"	1/2"	D
LKK 10 25210	69,5	29	23	64	16	12,5	19	5/8"	E
LKK 12 25212	69,5	29	23	64	16	12,5	22	19	E
LKK 14 25214	70	29	27	64	20	16,5	22	19	E
LKK 16 25216	70	29	27	64	20	16,5	22	19	E
LKL 6	43	29	19	37	-	16,5	5/8"	12	-
LKL 6 25115	43	29	27	37	20	16,5	5/8"	12	E
LKL 7,5 25117	43	29	27	37	20	16,5	5/8"	12	E
LKL 8,5 25118	45	29	29,5	39	22,5	19	5/8"	12	D
LKL 10 25210	66	29	27	60	20	16,5	5/8"	12	E
LKL 12 25212	66	29	27	60	20	16,5	5/8"	12	E
LKL 14 25214	68	29	29,5	62	22,5	19	5/8"	12	D
LKL 16 25216	70	29	29,5	64	22,5	19	5/8"	12	E
LKS 6	43	29	19	37	-	16,5	1/2"	1/2"	-
LKS 6 25115	43	29	27	37	20	16,5	1/2"	1/2"	E
LKS 9 25117	45	29	29,5	39	22,5	19	1/2"	1/2"	E
LKS 10 25118	49	29	29,5	40	22,5	19	1/2"	1/2"	D
LKS 12 25210	67,5	29	27	61,5	20	16,5	5/8"	1/2"	E
LKS 14 25212	67,5	29	29,5	61,5	22,5	19	1/2"	1/2"	E
LKS 16 25214	70	29	29,5	64	22,5	19	5/8"	1/2"	E
LKS 18 25216	76,5	29	29,5	70,5	22,5	19	5/8"	1/2"	D

KK Serisi
KK Serie

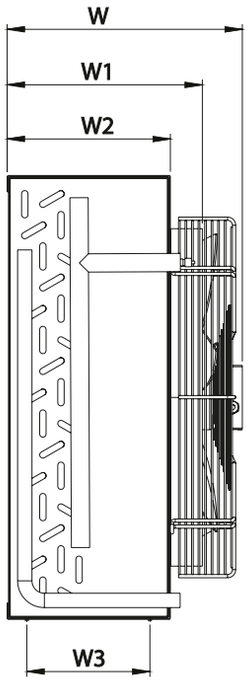
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

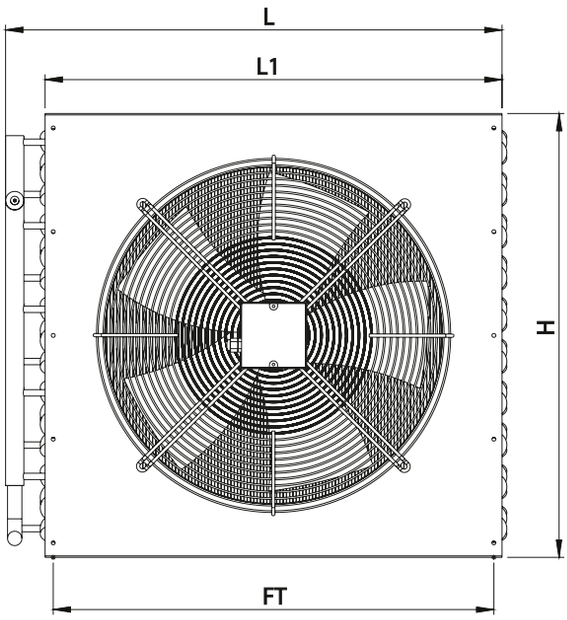
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity **Δt=Tc-Ta= 15°C**		**Fanlar** Fans				
			S 1/ 230V AC 50Hz 1400 rpm	L 1/ 230V AC 50Hz 900 rpm	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow	**L Hava Debisi** Air Flow
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)	(m³/h)
KK18 35111	18,01	1,6	6.575	4.956	1	350	165	2.625	1.702
KK24 35112	24,02	2,2	7.683	5.612		350	165	2.468	1.584
KK30 35113	30,02	2,7	8.221	5.800		350	165	2.333	1.479
KK18 40111	18,01	1,6	7.398	5.993		400	160	3.186	2.267
KK20 40112	19,37	2,1	7.653	6.081		400	160	2.987	2.106
KK24 40112	24,02	2,2	8.652	6.837		400	160	2.955	2.082
KK30 40113	30,02	2,7	9.316	7.048		400	160	2.778	1.898
KK27 40111	26,61	2,4	9.079	7.361		400	160	3.574	2.599
KK35 40112	35,48	3,2	10.759	8.523		400	160	3.407	2.460
KK44 40113	44,35	4,0	11.754	9.091		400	160	3.255	2.323
KK27 45111	26,61	2,4	10.495	9.051		450	245	4.523	3.560
KK31 45111	31,46	2,4	11.403	9.719		450	245	4.429	3.455
KK35 45112	35,48	3,2	12.498	10.438		450	245	4.256	3.261
KK42 45112	41,94	3,2	13.294	10.960		450	245	4.149	3.156
KK45 45113	44,35	4,0	13.706	11.186		450	245	4.034	3.044
KK27 50111	26,61	2,4	13.167	9.844		500	590	6.709	4.071
KK32 50111	31,46	2,4	14.325	10.558		500	590	6.487	3.922
KK36 50112	35,48	3,2	15.422	11.142		500	590	6.114	3.689
KK42 50112	41,94	3,2	16.436	-		500	590	5.872	-
KK45 50113	44,35	4,0	17.035	-		500	590	5.610	-





Model Model	**Boyutlar** Dimensions								**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**FT**	**L1**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
KK18 35111	67	54	35	57,5	60	26	22	13,5	22	19	D
KK24 35112	67	54	35	57,5	60	26	22	16,5	22	19	D
KK30 35113	67	54	43	57,5	60	29	25	13,5	22	19	D
KK18 40111	67	54	35	57,5	60	26	22	16,5	22	19	D
KK20 40112	62	54	35	57,5	60	26	22	13,5	22	19	D
KK24 40112	67	54	35	52,5	60	26	22	13,5	22	19	D
KK30 40113	67	54	43	57,5	60	29	25	13,5	22	19	D
KK27 40111	79	68	35	57,5	70	26	22	16,5	22	19	D
KK35 40112	79	68	35	67,5	70	26	22	13,5	22	19	D
KK44 40113	79	68	43	67,5	70	29	25	13,5	22	19	C
KK27 45111	79	68	35	67,5	70	29	25	16,5	22	19	D
KK31 45111	79	68	35	67,5	70	29	25	16,5	22	19	D
KK35 45112	79	68	35	67,5	70	29	25	16,5	22	19	D
KK42 45112	79	68	35	67,5	70	29	25	16,5	22	19	D
KK45 45113	79	68	43	67,5	70	32	28	16,5	22	19	D
KK27 50111	79	68	35	67,5	70	29	25	19,5	22	19	E
KK32 50111	79	68	35	67,5	70	29	25	16,5	22	19	E
KK36 50112	79	68	35	67,5	70	29	25	16,5	22	19	E
KK42 50112	79	68	41	67,5	70	29	25	16,5	22	19	E
KK45 50113	79	68	41	67,5	70	32	28	16,5	22	19	E

KK Serisi
KK Serie

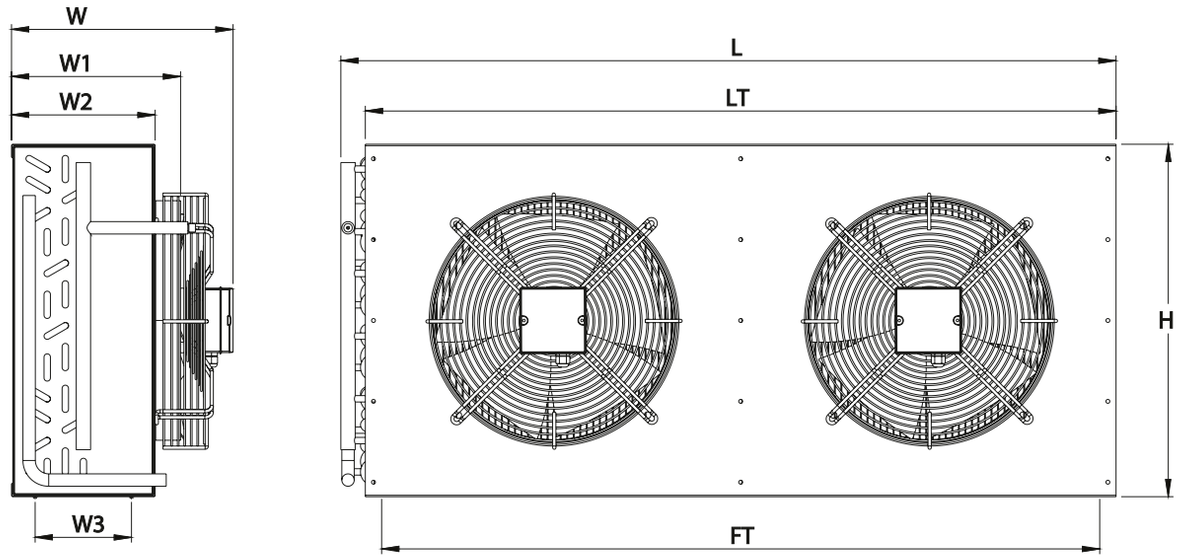
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity **Δt=Tc-Ta= 15°C**		**Fanlar** Fans				
			S 1/ 230V AC 50Hz 1400 rpm	L 1/ 230V AC 50Hz 900 rpm	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow	**L Hava Debisi** Air Flow
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)	(m³/h)
KK22 30211	22,11	2,00	7.138	6.224		300	138	2.708	2.200
KK30 30212	29,48	2,60	8.254	9.826		300	138	2.522	1.940
KK37 30213	36,84	3,40	8.588	-		300	138	2.368	-
KK36 35211	36,02	3,20	13.370	10.110		350	330	5.245	3.404
KK48 35212	48,04	4,40	15.088	11.137		350	330	4.936	3.168
KK60 35213	60,04	5,40	16.442	11.600		350	330	4.666	2.958
KK36 40211	36,02	3,20	14.993	12.209		400	320	6.360	4.534
KK43 40211	42,59	3,20	14.837	12.014		400	320	6.366	4.534
KK48 40212	48,04	4,40	17.031	13.468		400	320	5.910	4.164
KK57 40212	56,79	4,40	18.853	14.737		400	320	5.910	4.164
KK60 40213	60,04	5,40	18.632	14.096		400	320	5.556	3.796
KK53 40211	53,22	4,80	18.798	15.263	2	400	320	7.148	5.198
KK71 40212	70,96	6,40	21.518	17.046		400	320	6.814	4.920
KK89 40213	88,70	8,00	23.508	18.182		400	320	6.510	4.646
KK53 45211	53,22	4,80	21.687	18.742		450	490	9.046	7.120
KK63 45211	62,92	4,80	23.418	20.034		450	490	8.858	6.910
KK71 45212	70,96	6,40	24.996	20.876		450	490	8.512	6.522
KK84 45212	83,88	6,40	26.588	21.920		450	490	8.298	6.312
KK89 45213	88,70	8,00	27.412	22.372		450	490	8.068	6.088
KK53 50211	53,22	4,80	26.334	19.688		500	1.180	13.418	8.142
KK63 50211	62,92	4,80	29.159	21.751		500	1.180	12.974	7.844
KK71 50212	70,96	6,40	30.844	22.284		500	1.180	12.228	7.378
KK84 50212	83,88	6,40	32.872	-		500	1.180	11.744	-
KK89 50213	88,70	8,00	34.070	-		500	1.180	11.220	-



Model Model	**Boyutlar** Dimensions								**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**FT**	**L1**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
KK22 30211	102	43	35	67,5	95	26	22	19,5	22	19	D
KK30 30212	102	43	35	92,5	95	26	22	13,5	22	19	D
KK37 30213	102	43	39	92,5	95	29	25	16,5	22	19	D
KK36 35211	122	54	35	112,5	115	26	22	13,5	22	19	D
KK48 35212	122	54	35	112,5	115	26	22	13,5	28	22	D
KK60 35213	122	54	39	112,5	115	29	25	16,5	28	22	D
KK36 40211	122	54	35	112,5	115	26	22	13,5	22	19	D
KK43 40211	122	54	35	112,5	115	26	22	13,5	22	19	D
KK48 40212	122	54	35	112,5	115	26	22	13,5	28	22	D
KK57 40212	122	54	35	112,5	115	26	22	13,5	28	22	D
KK60 40213	122	54	39	112,5	115	29	25	16,5	28	22	D
KK53 40211	144	68	35	132,5	135	26	22	13,5	28	22	D
KK71 40212	144	68	35	132,5	135	26	22	13,5	28	22	D
KK89 40213	144	68	39	132,5	135	29	25	16,5	28	22	C
KK53 45211	144	68	39	132,5	135	29	25	16,5	28	22	D
KK63 45211	144	68	39	132,5	135	29	25	16,5	28	22	D
KK71 45212	144	68	39	132,5	135	29	25	16,5	28	22	D
KK84 45212	144	68	39	132,5	135	29	25	16,5	28	22	D
KK89 45213	144	68	41	132,5	135	32	28	19,5	28	22	D
KK53 50211	144	68	39	132,5	135	29	25	16,5	28	22	E
KK63 50211	144	68	39	132,5	135	29	25	16,5	28	22	E
KK71 50212	144	68	39	132,5	135	29	25	16,5	28	22	E
KK84 50212	144	68	39	132,5	135	29	25	16,5	28	22	E
KK89 50213	144	68	41	132,5	135	32	28	19,5	28	22	E

KK Serisi
KK Serie

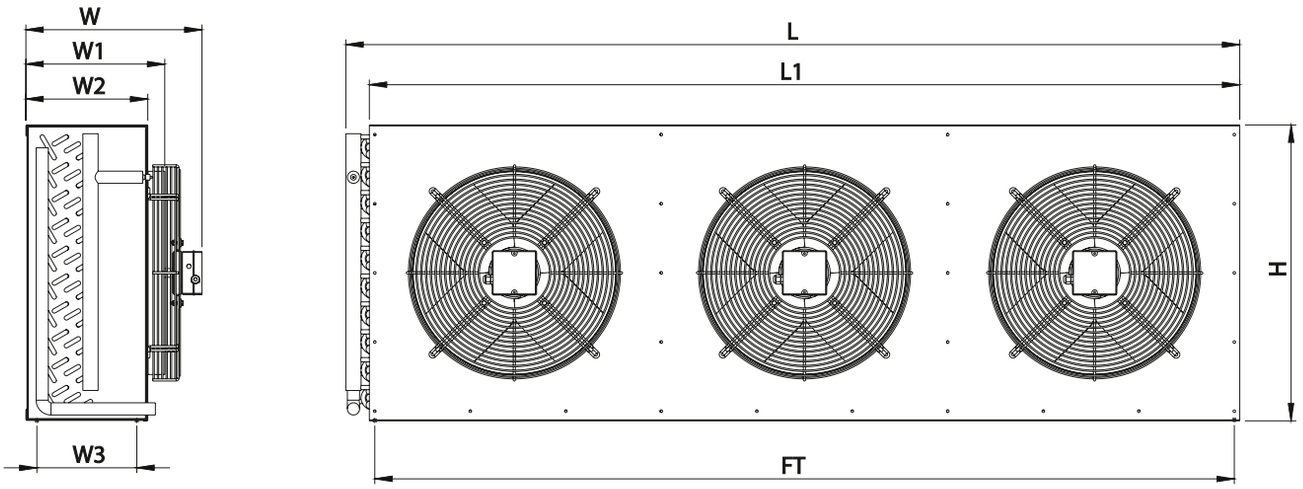
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8"

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity **Δt=Tc-Ta= 15°C**		**Fanlar** Fans				
			S 1/ 230V AC 50Hz 1400 rpm	L 1/ 230V AC 50Hz 900 rpm	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow	**L Hava Debisi** Air Flow
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)	(m³/h)
KK80 40311	79,83	7,20	22.194	17.979		400	480	9.558	6.801
KK106 40312	106,45	9,60	25.956	20.511		400	480	8.865	6.246
KK133 40313	133,06	12,00	34.446	26.557		400	480	8.334	5.694
KK80 45311	79,83	7,20	31.485	27.153		450	735	13.569	10.680
KK94 45311	94,38	7,20	34.209	29.157		450	735	13.287	10.365
KK106 45312	106,45	9,60	37.494	31.314		450	735	12.768	9.783
KK126 45312	125,82	9,60	39.882	32.880	3	450	735	12.447	9.468
KK133 45313	133,06	12,00	41.118	33.558		450	735	12.102	9.132
KK80 50311	79,83	7,20	39.501	29.532		500	1.770	20.127	12.213
KK94 50311	94,38	7,20	42.975	31.674		500	1.770	19.461	11.766
KK106 50312	106,45	9,60	46.266	33.426		500	1.770	18.342	11.067
KK126 50312	125,82	9,60	49.308	-		500	1.770	17.616	-
KK133 50313	133,06	12,00	51.105	-		500	1.770	16.830	-
KK106 40221	106,45	9,50	29.592	23.972		400	640	12.744	9.068
KK142 40222	141,93	12,80	34.608	27.348		400	640	11.820	8.328
KK177 40223	177,41	16,00	37.264	28.192		400	640	11.112	7.592
KK106 45221	106,45	9,50	41.980	36.204		450	980	18.092	14.240
KK126 45221	125,84	9,50	45.612	38.876		450	980	17.716	13.820
KK142 45222	141,93	12,80	49.992	41.752		450	980	17.024	13.044
KK168 45222	167,76	12,80	53.176	43.840	4	450	980	16.596	12.624
KK177 45223	177,41	16,00	54.824	44.744		450	980	16.136	12.176
KK106 50221	106,45	9,50	52.668	39.376		500	2.360	26.836	16.284
KK126 50221	125,84	9,50	57.300	42.232		500	2.360	25.948	15.688
KK142 50222	141,93	12,80	61.688	44.568		500	2.360	24.456	14.756
KK168 50222	167,76	12,80	65.744	-		500	2.360	23.488	-
KK177 50223	177,41	16,00	68.140	-		500	2.360	22.440	-



Model Model	**Boyutlar** Dimensions								**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**FT**	**L1**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
KK80 40311	209	68	35	197,5	200	26	22	13,5	28	22	D
KK106 40312	209	68	35	197,5	200	26	22	13,5	28	22	D
KK133 40313	209	68	39	197,5	200	29	25	16,5	35	28	C
KK80 45311	209	68	39	197,5	200	29	25	16,5	28	22	D
KK94 45311	209	68	39	197,5	200	29	25	16,5	28	22	D
KK106 45312	209	68	39	197,5	200	29	25	16,5	28	22	D
KK126 45312	209	68	39	197,5	200	29	25	16,5	35	28	D
KK133 45313	209	68	41	197,5	200	32	28	19,5	35	28	D
KK80 50311	209	68	39	197,5	200	29	25	16,5	28	22	E
KK94 50311	209	68	39	197,5	200	29	25	16,5	28	22	E
KK106 50312	209	68	39	197,5	200	29	25	16,5	28	22	E
KK126 50312	209	68	39	197,5	200	29	25	16,5	35	28	E
KK133 50313	209	68	41	197,5	200	32	28	19,5	35	28	E
KK106 40221	142	133	35	132,5	135	26	22	13,5	35	28	D
KK142 40222	142	133	35	132,5	135	26	22	13,5	35	28	D
KK177 40223	142	133	39	132,5	135	29	25	16,5	42	35	D
KK106 45221	142	133	39	132,5	135	29	25	16,5	35	28	D
KK126 45221	142	133	39	132,5	135	29	25	16,5	35	28	D
KK142 45222	142	133	39	132,5	135	29	25	16,5	35	28	D
KK168 45222	142	133	39	132,5	135	29	25	16,5	42	35	D
KK177 45223	142	133	41	132,5	135	32	28	19,5	42	35	D
KK106 50221	142	133	39	132,5	135	29	25	16,5	35	28	E
KK126 50221	142	133	39	132,5	135	29	25	16,5	35	28	E
KK142 50222	142	133	39	132,5	135	29	25	16,5	35	28	E
KK168 50222	142	133	39	132,5	135	29	25	16,5	42	35	E
KK177 50223	142	133	41	132,5	135	32	28	19,5	42	35	E

KL Serisi
KL Serie

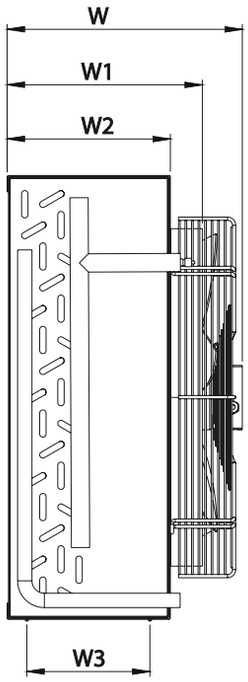
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

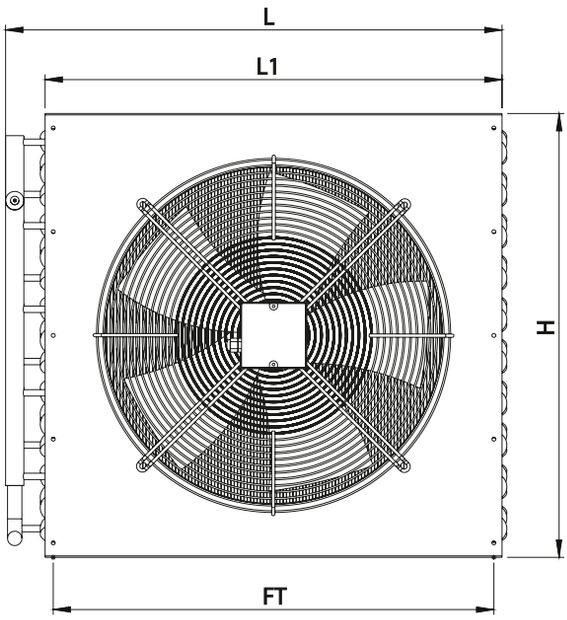
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity **Δt=Tc-Ta= 15°C**		**Fanlar** Fans				
			S 1/ 230V AC 50Hz 1400 rpm	L 1/ 230V AC 50Hz 900 rpm	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow	**L Hava Debisi** Air Flow
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)	(m³/h)
KL18 35112	17,86	2,70	7.431	5.301		350	165	2.403	1.526
KL22 35113	22,32	3,40	7.981	5.487		350	165	2.254	1.414
KL27 35114	26,79	4,00	8.283	5.595		350	165	2.119	1.327
KL13 40111	13,39	2,00	7.376	5.866		400	160	3.078	2.178
KL18 40112	17,86	2,70	8.390	6.372		400	160	2.854	1.946
KL22 40113	22,32	3,40	8.953	8.688		400	160	2.630	1.790
KL27 40114	26,79	4,00	11.379	6.829		400	160	2.415	1.682
KL21 40111	20,58	3,10	9.533	7.639		400	160	3.577	2.595
KL24 40111	24,21	3,10	10.290	8.212		400	160	3.514	2.547
KL27 40112	27,44	4,10	10.502	8.198		400	160	3.401	2.443
KL32 40112	32,28	4,10	11.509	8.959		400	160	3.325	2.379
KL34 40113	34,30	5,20	11.634	9.049		400	160	3.243	2.311
KL41 40114	41,16	6,20	12.155	9.228	1	400	160	3.104	2.202
KL21 45111	20,58	3,10	10.650	9.274		450	245	4.485	3.484
KL24 45111	24,21	3,10	11.796	9.898		450	245	4.387	3.367
KL27 45112	27,44	4,10	12.267	10.449		450	245	4.100	3.197
KL32 45112	32,28	4,10	13.392	10.886		450	245	4.108	3.097
KL34 45113	34,30	5,20	13.654	13.339		450	245	3.985	2.980
KL41 45114	41,16	6,20	14.313	11.231		450	245	3.780	2.781
KL21 50111	20,58	3,10	13.776	9.768		500	590	6.507	3.941
KL24 50111	24,21	3,10	14.899	10.461		500	590	6.284	3.801
KL27 50112	27,44	4,10	15.797	11.378		500	590	5.892	3.660
KL32 50112	32,28	4,10	16.695	11.903		500	590	5.636	3.510
KL34 50113	34,30	5,20	16.953	-		500	590	5.342	-
KL41 50114	41,16	6,20	17.310	-		500	590	4.877	-





Model Model	**Boyutlar** Dimensions								**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**FT**	**L1**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
KL18 35112	67	54	35	57,5	60	26	22	13,5	22	19	D
KL22 35113	67	54	35	57,5	60	26	22	13,5	22	19	D
KL27 35114	67	54	39	57,5	60	29	25	16,5	22	19	D
KL13 40111	67	54	35	57,5	60	26	22	13,5	19	5/8	D
KL18 40112	67	54	35	57,5	60	26	22	13,5	22	19	D
KL22 40113	67	54	35	57,5	60	26	22	13,5	22	19	D
KL27 40114	67	54	39	57,5	60	29	25	16,5	22	19	C
KL21 40111	79	68	35	67,5	70	26	22	13,5	22	19	D
KL24 40111	79	68	35	67,5	70	26	22	13,5	22	19	D
KL27 40112	79	68	35	67,5	70	26	22	13,5	22	19	D
KL32 40112	79	68	35	67,5	70	26	22	13,5	22	19	C
KL34 40113	79	68	35	67,5	70	26	22	13,5	22	19	C
KL41 40114	79	68	39	67,5	70	29	25	16,5	22	19	C
KL21 45111	79	68	39	67,5	70	29	25	16,5	22	19	D
KL24 45111	79	68	39	67,5	70	29	25	16,5	22	19	D
KL27 45112	79	68	39	67,5	70	29	25	16,5	22	19	D
KL32 45112	79	68	39	67,5	70	29	25	16,5	22	19	D
KL34 45113	79	68	39	67,5	70	29	25	16,5	22	19	D
KL41 45114	79	68	41	67,5	70	32	28	19,5	22	19	D
KL21 50111	79	68	39	67,5	70	29	25	16,5	22	19	E
KL24 50111	79	68	39	67,5	70	29	25	16,5	22	19	E
KL27 50112	79	68	39	67,5	70	29	25	16,5	22	19	E
KL32 50112	79	68	39	67,5	70	29	25	16,5	22	19	E
KL34 50113	79	68	39	67,5	70	29	25	16,5	22	19	E
KL41 50114	79	68	41	67,5	70	32	28	19,5	22	19	E

KL Serisi
KL Serie

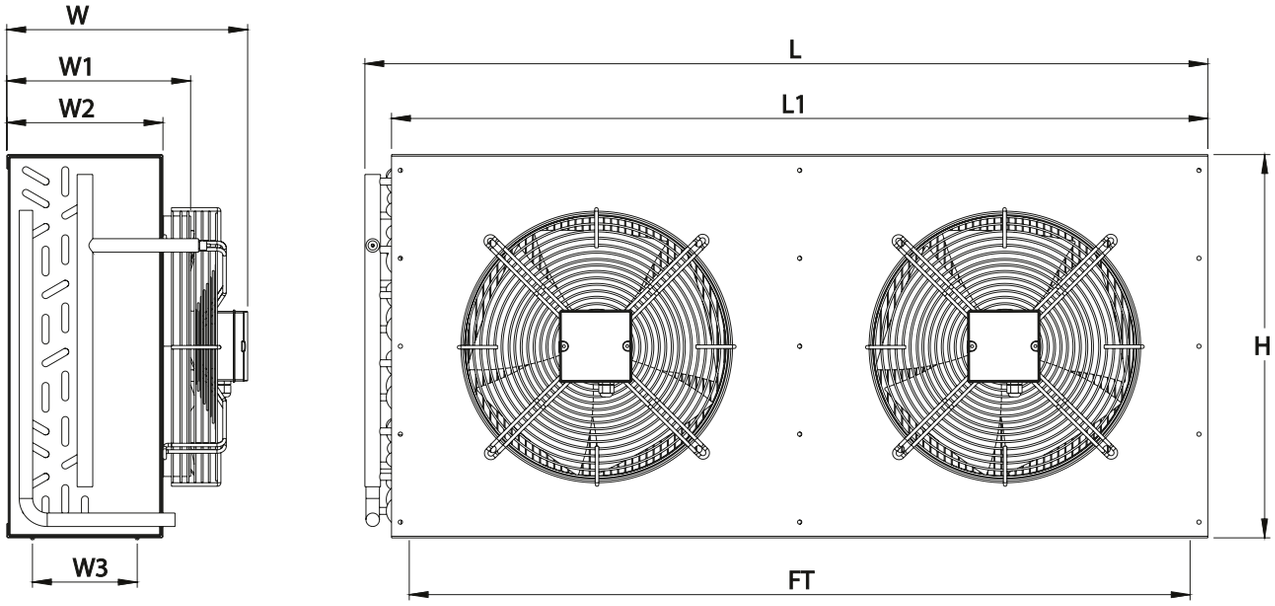
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity **Δt=Tc-Ta= 15°C**		**Fanlar** Fans				
			S 1/ 230V AC 50Hz 1400 rpm	L 1/ 230V AC 50Hz 900 rpm	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow	**L Hava Debisi** Air Flow
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)	(m³/h)
KL18 30211	17,52	2,60	7.382	5.864		300	138	2.403	1.526
KL23 30212	23,38	3,60	8.378	6.316		300	138	2.254	1.414
KL29 30213	29,22	4,40	8.844	-		300	138	2.119	-
KL27 35211	26,78	4,00	13.112	9.684		350	330	3.078	2.178
KL36 35212	35,72	5,40	14.862	10.602		350	330	4.806	3.052
KL45 35213	44,64	6,80	15.962	10.974		350	330	4.508	2.828
KL54 35214	53,58	8,00	16.566	11.190		350	330	4.238	2.654
KL27 40211	26,78	4,00	14.752	11.732		400	320	6.156	4.356
KL36 40212	35,72	5,40	16.780	12.744		400	320	5.708	3.892
KL45 40213	44,64	6,80	17.906	17.376		400	320	5.260	3.580
KL54 40214	53,58	8,00	22.758	13.658		400	320	4.830	3.364
KL41 40211	41,16	6,20	19.066	15.278		400	320	7.154	5.190
KL48 40211	48,42	6,20	20.580	16.424		400	320	7.028	5.094
KL55 40212	54,88	8,20	21.067	16.428		400	320	6.560	4.742
KL64 40212	64,56	8,20	22.252	17.102	2	400	320	6.448	4.598
KL69 40213	68,60	10,40	23.268	18.098		400	320	6.486	4.622
KL82 40214	82,32	12,40	24.310	18.456		400	320	6.208	4.404
KL41 45211	41,16	6,20	21.300	18.548		450	490	8.970	6.968
KL48 45211	48,42	6,20	23.592	19.796		450	490	8.774	6.734
KL55 45212	54,88	8,20	24.629	20.164		450	490	8.200	6.218
KL65 45212	64,56	8,20	26.784	21.772		450	490	8.216	6.194
KL69 45213	68,60	10,40	27.308	26.678		450	490	7.970	5.960
KL82 45214	82,32	12,40	28.626	22.462		450	490	7.560	5.562
KL41 50211	41,16	6,20	27.552	19.536		500	1.180	13.014	7.882
KL48 50211	48,42	6,20	29.798	20.922		500	1.180	12.568	7.602
KL55 50212	54,88	8,20	30.483	22.756		500	1.180	11.509	7.320
KL65 50212	64,56	8,20	33.390	23.806		500	1.180	11.272	7.020
KL69 50213	68,60	10,40	33.906	-		500	1.180	10.684	-
KL82 50214	82,32	12,40	34.620	-		500	1.180	9.754	-



Model Model	**Boyutlar** Dimensions								**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**FT**	**L1**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
KL18 30211	102	43	35	92,5	95	26	22	13,5	22	19	D
KL23 30212	102	43	35	92,5	95	26	22	13,5	22	19	D
KL29 30213	102	43	35	92,5	95	26	22	13,5	22	19	D
KL27 35211	122	54	35	112,5	115	26	22	13,5	22	19	D
KL36 35212	122	54	35	112,5	115	26	22	13,5	22	19	D
KL45 35213	122	54	35	112,5	115	26	22	13,5	28	22	D
KL54 35214	122	54	39	112,5	115	29	25	16,5	28	22	D
KL27 40211	122	54	35	112,5	115	26	22	13,5	22	19	D
KL36 40212	122	54	35	112,5	115	26	22	13,5	22	19	D
KL45 40213	122	54	35	112,5	115	26	22	13,5	28	22	D
KL54 40214	122	54	39	112,5	115	29	25	16,5	28	22	C
KL41 40211	144	68	35	132,5	135	26	22	13,5	22	19	D
KL48 40211	144	68	35	132,5	135	26	22	13,5	28	22	D
KL55 40212	144	68	35	132,5	135	26	22	13,5	28	22	D
KL64 40212	144	68	35	132,5	135	26	22	13,5	28	22	C
KL69 40213	144	68	35	132,5	135	26	22	13,5	28	22	C
KL82 40214	144	68	39	132,5	135	29	25	16,5	28	22	C
KL41 45211	144	68	39	132,5	135	29	25	16,5	22	19	D
KL48 45211	144	68	39	132,5	135	29	25	16,5	28	22	D
KL55 45212	144	68	39	132,5	135	29	25	16,5	28	22	D
KL65 45212	144	68	39	132,5	135	29	25	16,5	28	22	D
KL69 45213	144	68	39	132,5	135	29	25	16,5	28	22	D
KL82 45214	144	68	41	132,5	135	32	28	19,5	28	22	D
KL41 50211	144	68	39	132,5	135	29	25	16,5	22	19	E
KL48 50211	144	68	39	132,5	135	29	25	16,5	28	22	E
KL55 50212	144	68	39	132,5	135	29	25	16,5	28	22	E
KL65 50212	144	68	39	132,5	135	29	25	16,5	28	22	E
KL69 50213	144	68	39	132,5	135	29	25	16,5	28	22	E
KL82 50214	144	68	41	132,5	135	32	28	19,5	28	22	E

KL Serisi
KL Serie

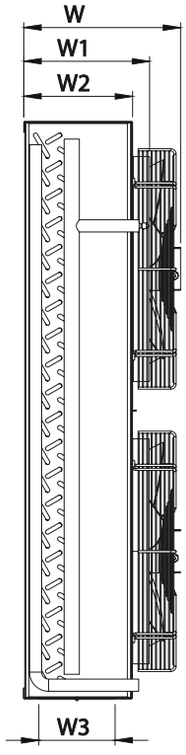
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

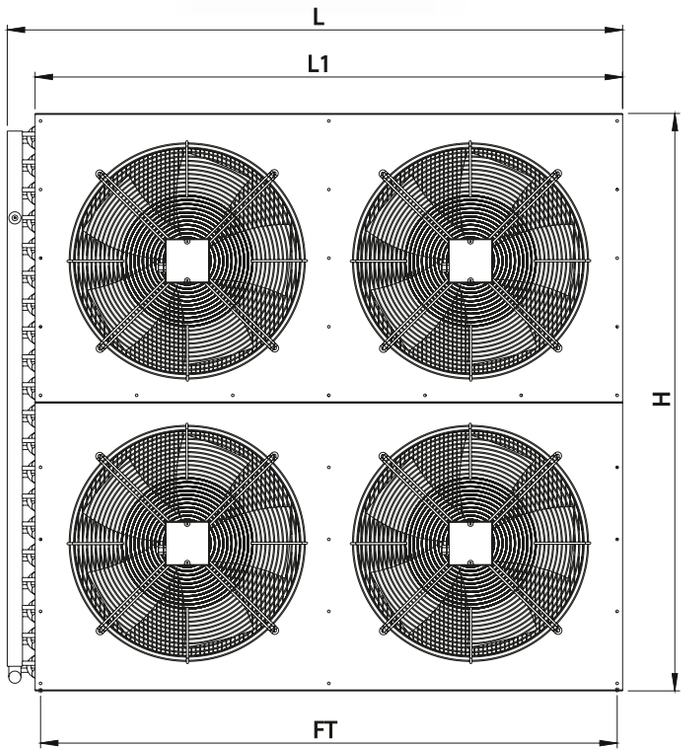
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8"

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity **Δt=Tc-Ta= 15°C**		**Fanlar** Fans				
			S 1/ 230V AC 50Hz 1400 rpm	L 1/ 230V AC 50Hz 900 rpm	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow	**L Hava Debisi** Air Flow
	(m^2)	**(dm^3)**	**(Watt)**	**(Watt)**	**(n)**	**(Ømm)**	**(Watt)**	**(m^3/h)**	**(m^3/h)**
KL82 40312	82,32	12,30	25.170	19.116	3	400	480	8.562	5.838
KL103 40313	104,48	15,40	34.138	26.065		400	480	9.407	6.705
KL123 40314	123,48	18,60	34.138	20.487		400	480	7.245	5.046
KL82 45312	82,32	12,30	36.801	31.347		450	735	12.300	9.591
KL97 45312	96,84	12,30	40.176	32.658		450	735	12.324	9.291
KL103 45313	104,48	15,40	40.017	32.002		450	735	11.955	8.660
KL123 45314	123,48	18,60	42.939	33.693		450	735	11.340	8.343
KL82 50312	82,32	12,30	47.391	34.134		500	1.770	17.676	10.980
KL97 50312	96,84	12,30	50.085	35.709		500	1.770	16.908	10.530
KL103 50313	102,90	15,60	50.859	-		500	1.770	16.026	-
KL123 50314	123,48	18,60	51.930	-		500	1.770	14.631	-
KL110 40222	109,76	16,50	33.560	25.488	4	400	640	11.416	7.784
KL137 40223	137,20	20,80	35.812	34.752		400	640	10.520	7.160
KL165 40224	164,64	24,80	45.516	27.316		400	640	9.660	6.728
KL110 45222	109,76	16,50	49.068	41.796		450	980	16.400	12.788
KL129 45222	129,12	16,50	66.780	47.612		450	980	22.544	14.040
KL137 45223	137,20	20,80	54.616	53.356		450	980	15.940	11.920
KL165 45224	164,64	24,80	57.252	44.924		450	980	15.120	11.124
KL110 50222	109,76	16,50	63.188	45.512		500	2.360	23.568	14.640
KL129 50 222	129,12	16,50	66.780	47.612		500	2.360	22.544	14.040
KL137 50223	137,20	20,80	67.812	-		500	2.360	21.368	-
KL165 50224	164,64	24,80	69.240	-		500	2.360	19.508	-





Model Model	**Boyutlar** Dimensions								**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**FT**	**L1**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
KL82 40312	209	68	35	197,5	200	26	22	13,5	28	22	D
KL103 40313	209	68	35	197,5	200	26	22	13,5	28	22	C
KL123 40314	209	68	39	197,5	200	29	25	16,5	35	28	C
KL82 45312	209	68	39	197,5	200	29	25	16,5	28	22	D
KL97 45312	209	68	39	197,5	200	29	25	16,5	28	22	D
KL103 45313	209	68	39	197,5	200	29	25	16,5	28	22	D
KL123 45314	209	68	41	197,5	200	32	28	19,5	35	28	D
KL82 50312	209	68	39	197,5	200	29	25	16,5	28	22	E
KL97 50312	209	68	39	197,5	200	29	25	16,5	28	22	E
KL103 50313	209	68	39	197,5	200	29	25	16,5	28	22	E
KL123 50314	209	68	41	197,5	200	32	28	19,5	35	22	E
KL110 40222	142	133	35	132,5	135	26	22	13,5	28	22	D
KL137 40223	142	133	35	132,5	135	26	22	13,5	35	28	D
KL165 40224	142	133	39	132,5	135	29	25	16,5	42	35	C
KL110 45222	142	133	39	132,5	135	29	25	16,5	28	22	D
KL129 45222	142	133	39	132,5	135	29	25	16,5	35	28	D
KL137 45223	142	133	39	132,5	135	29	25	16,5	35	28	D
KL165 45224	142	133	41	132,5	135	32	28	19,5	42	35	D
KL110 50222	142	133	39	132,5	135	29	25	16,5	88	76	E
KL129 50 222	142	133	39	132,5	135	29	25	16,5	35	28	E
KL137 50223	142	133	39	132,5	135	29	25	16,5	35	28	E
KL165 50224	142	133	41	132,5	135	32	28	19,5	42	35	E

KS Serisi
KS Serie

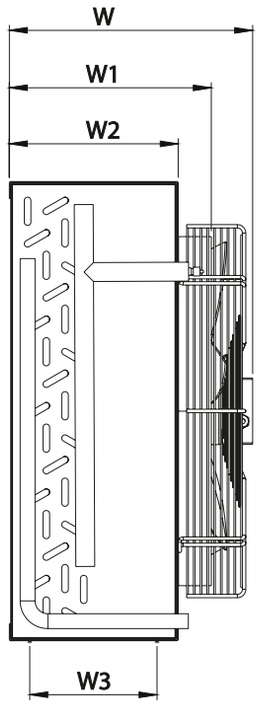
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

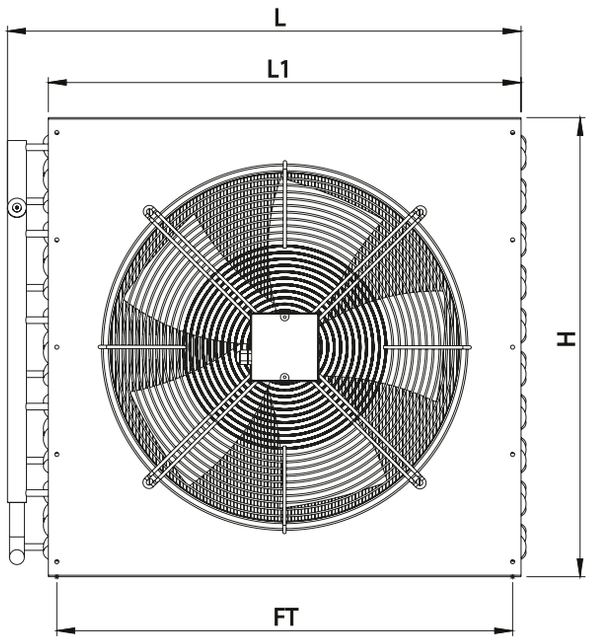
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/16"

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity **Δt=Tc-Ta= 15°C**		**Fanlar** Fans				
			S 1/ 230V AC 50Hz 1400 rpm	L 1/ 230V AC 50Hz 900 rpm	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow	**L Hava Debisi** Air Flow
	(m^2)	**(dm^3)**	**(Watt)**	**(Watt)**	**(n)**	**(Ømm)**	**(Watt)**	**(m^3/h)**	**(m^3/h)**
KS14 35111	14,04	1,4	6.270	4.927	1	350	165	2.607	1.655
KS19 35112	18,71	1,9	7.299	5.344		350	165	2.448	1.526
KS23 35113	23,39	2,3	7.888	5.579		350	165	2.308	1.414
KS28 35114	28,07	2,8	8.219	5.611		350	165	2.184	1.327
KS14 40111	14,04	1,4	7.067	5.928		400	160	3.154	2.179
KS19 40112	18,71	1,9	8.153	6.476		400	160	2.923	1.947
KS23 40113	23,39	2,3	8.927	6.710		400	160	2.744	1.790
KS28 40114	28,07	2,8	9.254	6.877		400	160	2.560	1.682
KS21 40115	21,56	2,1	9.109	7.639		400	160	3.584	2.595
KS24 40115 2,1	24,96	2,1	9.881	8.187		400	160	3.527	2.547
KS29 40116	28,75	2,9	10.553	8.583		400	160	3.419	2.443
KS34 40116 2,1	33,90	2,9	11.200	8.959		400	160	3.350	2.379
KS36 40117	35,94	3,6	11.420	9.049		400	160	3.268	2.311
KS42 40118	42,43	4,3	11.843	9.257		400	160	3.135	2.202
KS22 45111	21,56	2,1	10.302	9.099		450	245	4.543	3.578
KS25 45111 2,1	25,43	2,1	11.213	9.779		450	245	4.445	3.473
KS29 45112	28,75	2,9	12.101	10.242		450	245	4.280	3.285
KS34 45112 2,1	33,91	2,9	12.929	10.785		450	245	4.174	3.180
KS36 45113	35,94	3,6	13.369	10.908		450	245	4.059	3.068
KS43 45114	43,13	4,3	14.087	11.133		450	245	3.862	2.886
KS22 50111	21,56	3,1	12.982	9.910		500	590	6.860	4.090
KS25 50111 2,1	25,43	3,1	14.170	10.187		500	590	6.644	3.950
KS29 50112	28,75	4,1	15.172	10.870		500	590	6.278	3.707
KS34 50112 2,1	33,91	4,1	16.244	11.151		500	590	6.024	3.590
KS35 50113	35,36	5,2	16.606	11.648		500	590	5.780	3.470
KS43 50114	43,13	6,2	17.601	-		500	590	5.329	-





Model Model	**Boyutlar** Dimensions								**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**FT**	**L1**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
KS14 35111	67	54	35	57,5	60	31	22	13,5	19	5/8	D
KS19 35112	67	54	35	57,5	60	26	22	13,5	22	19	D
KS23 35113	67	54	35	57,5	60	26	22	13,5	22	19	D
KS28 35114	67	54	39	57,5	60	29	25	16,5	22	19	D
KS14 40111	67	54	35	57,5	60	26	22	13,5	19	5/8	D
KS19 40112	67	54	35	57,5	60	26	22	13,5	22	19	D
KS23 40113	67	54	35	57,5	60	26	22	13,5	22	19	D
KS28 40114	67	54	39	57,5	60	29	25	16,5	22	19	D
KS21 40115	79	68	35	67,5	70	26	22	13,5	22	19	D
KS24 40115 2,1	79	68	35	67,5	70	26	22	13,5	22	19	D
KS29 40116	79	68	35	67,5	70	26	22	13,5	22	19	D
KS34 40116 2,1	79	68	35	67,5	70	26	22	13,5	22	19	C
KS36 40117	79	68	35	67,5	70	26	22	13,5	22	19	C
KS42 40118	79	68	39	67,5	70	29	25	16,5	22	19	C
KS22 45111	79	68	39	67,5	70	26	22	13,5	22	19	D
KS25 45111 2,1	79	68	39	67,5	70	26	22	13,5	22	19	D
KS29 45112	79	68	39	67,5	70	26	22	13,5	22	19	D
KS34 45112 2,1	79	68	39	67,5	70	26	22	13,5	22	19	D
KS36 45113	79	68	39	67,5	70	26	22	13,5	22	19	D
KS43 45114	79	68	41	67,5	70	29	25	16,5	22	19	D
KS22 50111	79	68	39	67,5	70	26	22	13,5	22	19	E
KS25 50111 2,1	79	68	39	67,5	70	26	22	13,5	22	19	E
KS29 50112	79	68	39	67,5	70	26	22	13,5	22	19	E
KS34 50112 2,1	79	68	39	67,5	70	26	22	13,5	22	19	E
KS35 50113	79	68	39	67,5	70	26	22	13,5	22	19	E
KS43 50114	79	68	41	67,5	70	29	25	16,5	22	19	E

KS Serisi
KS Serie

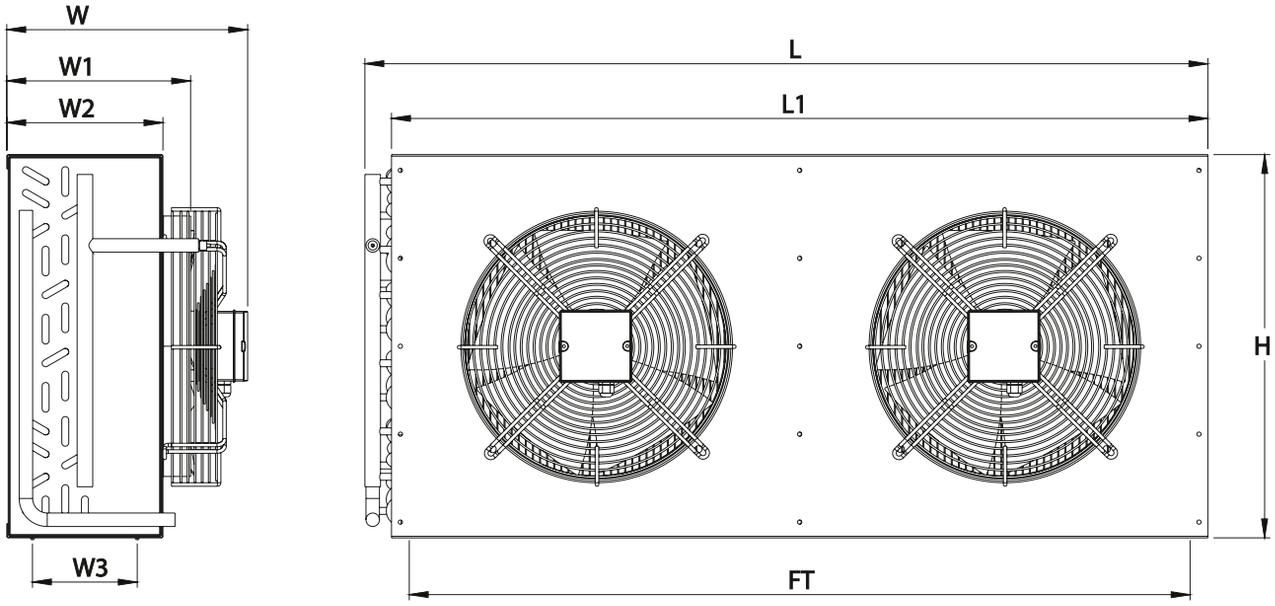
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/16"

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity **Δt=Tc-Ta= 15°C**		**Fanlar** Fans				
			S 1/ 230V AC 50Hz 1400 rpm	L 1/ 230V AC 50Hz 900 rpm	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow	**L Hava Debisi** Air Flow
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)	(m³/h)
KS18 30211	18,38	1,8	7.220	6.182		300	138	2.749	2.100
KS24 30212	24,50	2,4	8.112	5.574		300	138	2.566	1.820
KS31 30213	30,62	3,0	8.622	-		300	138	2.412	-
KS28 35211	28,08	2,8	12.540	9.854		350	330	5.214	3.310
KS37 35212	37,42	3,8	14.598	10.688		350	330	4.896	3.052
KS47 35213	46,78	4,6	15.776	11.158		350	330	4.616	2.828
KS56 35214	56,14	5,6	16.438	11.222		350	330	4.368	2.654
KS28 40211	28,08	2,8	14.134	11.856		400	320	6.308	4.358
KS37 40212	37,42	3,8	16.306	12.952		400	320	5.846	3.894
KS47 40213	46,78	4,6	17.854	13.420		400	320	5.488	3.580
KS56 40214	56,14	5,6	18.508	13.754		400	320	5.120	3.364
KS41 40215	43,12	4,2	18.218	15.278		400	320	7.168	5.190
KS48 40215 2,1	49,92	6,2	19.762	16.374		400	320	7.054	5.094
KS57 40216	57,50	5,8	21.106	17.166		400	320	6.838	4.886
KS68 40216 2,1	67,80	5,8	22.400	17.918	2	400	320	6.700	4.758
KS72 40217	71,88	7,2	22.840	18.098		400	320	6.536	4.622
KS85 40218	84,87	12,4	23.686	18.514		400	320	6.270	4.404
KS43 45211	43,12	4,2	20.604	18.198		450	490	9.086	7.156
KS51 45211 2,1	50,86	4,2	22.426	19.558		450	490	8.890	6.946
KS57 45212	57,50	5,8	24.202	20.484		450	490	8.560	6.570
KS68 45212 2,1	67,82	5,8	25.858	21.570		450	490	8.348	6.360
KS72 45213	71,88	7,2	26.738	21.816		450	490	8.118	6.136
KS86 45214	86,26	8,6	28.174	22.266		450	490	7.724	5.772
KS43 50211	43,12	6,2	25.964	19.820		500	1.180	13.720	8.180
KS51 50211 2,1	50,86	6,2	28.340	20.374		500	1.180	13.288	7.900
KS57 50212	57,50	8,2	30.344	21.740		500	1.180	12.556	7.414
KS68 50212 2,1	67,82	8,2	32.488	22.302		500	1.180	12.048	7.180
KS71 50213	70,72	10,4	33.212	23.296		500	1.180	11.560	6.940
KS86 50214	86,26	12,4	35.202	-		500	1.180	10.658	-



Model Model	**Boyutlar** Dimensions								**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**FT**	**L1**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
KS18 30211	102	43	35	92,5	95	26	22	13,5	22	19	D
KS24 30212	102	43	35	92,5	95	26	22	13,5	22	19	D
KS31 30213	102	43	35	92,5	95	26	22	13,5	22	19	D
KS28 35211	122	54	35	112,5	115	26	22	13,5	22	19	D
KS37 35212	122	54	35	112,5	115	26	22	13,5	22	19	D
KS47 35213	122	54	35	112,5	115	26	22	13,5	28	22	D
KS56 35214	122	54	39	112,5	115	29	25	16,5	28	22	D
KS28 40211	122	54	35	112,5	115	26	22	13,5	22	19	D
KS37 40212	122	54	35	112,5	115	26	22	13,5	22	19	D
KS47 40213	122	54	35	112,5	115	26	22	13,5	28	22	D
KS56 40214	122	54	39	112,5	115	29	25	16,5	28	22	D
KS41 40215	144	68	35	132,5	135	26	22	13,5	22	19	D
KS48 40215 2,1	144	68	35	132,5	135	26	22	13,5	28	22	D
KS57 40216	144	68	35	132,5	135	26	22	13,5	28	22	D
KS68 40216 2,1	144	68	35	132,5	135	26	22	13,5	28	22	C
KS72 40217	144	68	35	132,5	135	26	22	13,5	28	22	C
KS85 40218	144	68	39	132,5	135	29	25	16,5	28	22	C
KS43 45211	144	68	35	132,5	135	26	22	13,5	22	19	D
KS51 45211 2,1	144	68	35	132,5	135	26	22	13,5	28	22	D
KS57 45212	144	68	35	132,5	135	26	22	13,5	28	22	D
KS68 45212 2,1	144	68	35	132,5	135	26	22	13,5	28	22	D
KS72 45213	144	68	35	132,5	135	26	22	13,5	28	22	D
KS86 45214	144	68	39	132,5	135	29	25	16,5	28	22	D
KS43 50211	144	68	35	132,5	135	26	22	13,5	22	19	E
KS51 50211 2,1	144	68	35	132,5	135	26	22	13,5	28	22	E
KS57 50212	144	68	35	132,5	135	26	22	13,5	28	22	E
KS68 50212 2,1	144	68	35	132,5	135	26	22	13,5	28	22	E
KS71 50213	144	68	35	132,5	135	26	22	13,5	28	22	E
KS86 50214	144	68	39	132,5	135	29	25	16,5	28	22	E

KS Serisi
KS Serie

Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
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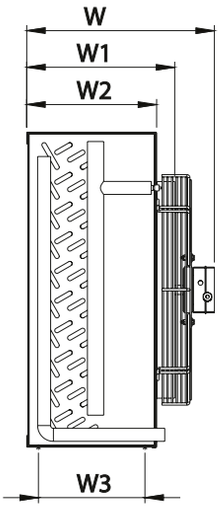
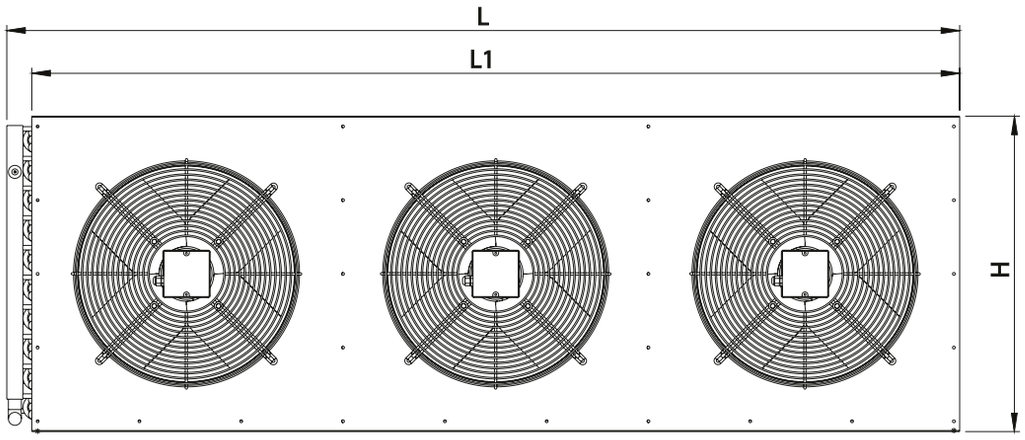
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/16"

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity **Δt=Tc-Ta= 15°C**		**Fanlar** Fans				
			S 1/ 230V AC 50Hz 1400 rpm	L 1/ 230V AC 50Hz 900 rpm	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow	**L Hava Debisi** Air Flow
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)	(m³/h)
KS86 40312	86,25	8,7	31.659	25.749	3	400	480	10.257	7.329
KS108 40313	107,82	10,8	34.260	27.147		400	480	9.804	6.933
KS127 40314	127,30	18,6	27.762	20.631		400	480	7.680	5.046
KS86 45312	86,25	8,7	36.303	30.726		450	735	12.840	9.855
KS102 45312 2,1	101,73	8,7	38.787	32.355		450	735	12.522	9.540
KS108 45313	107,82	10,8	40.107	32.724		450	735	12.177	9.204
KS129 45314	129,39	12,9	42.261	33.399		450	735	11.586	8.658
KS86 50312	86,25	12,3	45.516	32.610		500	1.770	18.834	11.121
KS102 50312 2,1	101,73	12,3	48.732	33.453		500	1.770	18.072	10.770
KS106 50313	106,08	15,6	49.818	34.944		500	1.770	17.340	10.410
KS129 50314	129,39	18,6	52.803	-		500	1.770	15.987	-
KS115 40222	115,00	11,6	42.212	34.332	4	400	640	13.676	9.772
KS144 40223	143,76	14,4	45.680	36.196		400	640	13.072	9.244
KS170 40224	169,73	24,8	37.016	27.508		400	640	10.240	6.728
KS115 45222	115,00	11,6	48.404	40.968		450	980	17.120	13.140
KS136 45222 2,1	135,64	11,6	51.716	43.140		450	980	16.696	12.720
KS144 45223	143,76	14,4	53.476	43.632		450	980	16.236	12.272
KS172 45224	172,52	17,2	56.348	44.532		450	980	15.448	11.544
KS115 50222	115,00	16,4	60.688	43.480		500	2.360	25.112	14.828
KS136 50222 2,1	135,64	16,4	64.976	44.604		500	2.360	24.096	14.360
KS141 50223	141,44	20,8	66.424	46.592		500	2.360	23.120	13.880
KS172 50224	172,52	24,8	70.404	-		500	2.360	21.316	-





Model Model	**Boyutlar** Dimensions							**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**L1**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
KS86 40312	209	68	35	200	26	22	13,5	28	22	D
KS108 40313	209	68	35	200	26	22	13,5	28	22	C
KS127 40314	209	68	39	200	29	25	16,5	35	28	D
KS86 45312	209	68	35	200	26	22	13,5	28	22	D
KS102 45312 2,1	209	68	35	200	26	22	13,5	28	22	D
KS108 45313	209	68	35	200	26	22	13,5	28	22	D
KS129 45314	209	68	39	200	29	25	16,5	35	28	D
KS86 50312	209	68	35	200	26	22	13,5	28	22	E
KS102 50312 2,1	209	68	35	200	26	22	13,5	28	22	E
KS106 50313	209	68	35	200	26	22	13,5	28	22	E
KS129 50314	209	68	39	200	29	25	16,5	35	22	E
KS115 40222	142	133	35	135	26	22	13,5	28	22	D
KS144 40223	142	133	35	135	26	22	13,5	35	28	C
KS170 40224	142	133	39	135	29	25	16,5	42	35	D
KS115 45222	142	133	35	135	26	22	13,5	28	22	D
KS136 45222 2,1	142	133	35	135	26	22	13,5	35	28	D
KS144 45223	142	133	35	135	26	22	13,5	35	28	D
KS172 45224	142	133	39	135	29	25	16,5	42	35	D
KS115 50222	142	133	35	135	26	22	13,5	88	76	E
KS136 50222 2,1	142	133	35	135	29	22	13,5	35	28	E
KS141 50223	142	133	35	135	29	22	13,5	35	28	E
KS172 50224	142	133	39	135	26	25	16,5	42	35	E

NEW GENERATION COOLERS

Yeni Nesil Soğutucular

BUZÇELİK
THERMIC EQUIPMENTS INDUSTRY

KONDENSER ÜNİTELERİ

Condensing Units Without Compressor

BZBOX-BZSBOX-BZKBOX
SHBOX-SHLBOX
EBOX-DEBOX
MTBOX-MSBOX
KUK-KUY
MONOBLOK

GENEL

• BZBOX, BZSBOX, SHBOX, SHLBOX, EBOX, DEBOX, MTBOX, MSBOX, KUK, KUY, MONO kondenser üniteleri 11 ana seriden oluşmaktadır.
• Tüm iklimlendirme ve soğutma uygulamalarında kullanılmak üzere, dış ortam koşullarında montaj ve çalışmaya uygun olacak şekilde, (S) Standart ses seviyeli ve (L) Düşük ses seviyeli tiplerde imal edilirler.

General

• BZBOX, BZSBOX, SHBOX, SHLBOX, EBOX, DEBOX, MTBOX, MSBOX, KUK, KUY, MONO Condenser Unit models are designed in 11 main series.
• It's also ideal for long lasting outdoor installation of all applications in refrigeration and air conditioning. Besides, it has 2 different noise levels of (S) Standart and (L) Low Noise

BATARYA

• Ø5/16" - Ø3/8" - Ø1 /2" bakır borular.
• V-tipi alüminyum lamel.
• Lamel araları 1,8 - 4 mm tasarlanmıştır.
• Giriş - çıkış kolektör malzemesi bakırdır.
• İzin verilen en yüksek çalışma basıncı Ps=21 Bar.
• Şaşırtmalı boru dizilimi.
• Bataryalarda R404A, R407C, R407F, R507F, R22, Rl 34A, R449A, R290A, R41 OA soğutucu gazlarla çalışmaya uygun tasarım.
• Pozitif basınçla sevk.

Coil

• Ø5/16" - Ø3/8" - Ø1 /2" copper tubes.
• V-type aluminium fins.
• The finned coils are designed with aluminium fins spaced at 1,8 or 4 mm, crimped onto copper tubes.
• Header inlet and outlet tube connections made of copper.
• Maximum operating pressure 21 bar.
• Staggered copper tubes.
• The coil circuits are designed for refrigerants R404A, R407C, R22, R134A
• Delivering under possitive pressure.

KASETLEME

Kondenser üniteleri kendini taşıyıcı bir konstrüksiyona sahiptir ve monte edileceği zemine ilave bir konstrüksiyona ihtiyaç duymadan yerleştirilebilir. Kasetleme malzemesi olarak UV ve korozyon koruması sağayan elektrostatik toz boya kaplı galvanizli çelik kullanılır. (Standart renk RAL 7035 veya RAL 9016)

Casing

Condenser units with their own support system do not require extra mounting equipment for placing. Electrostatically powder painted galvanized steel, which provides excellent UV and corrosion protection, is used for casing. (Standart RAL 7035 or RAL 9016)

FAN

• Ø300 - Ø350 - Ø400 - Ø450 - Ø500 - Ø630 - Ø800 mm / 230V-50Hz Monofaze 800 - 1450 d/d veya 400V-50Hz Trifaze 650, 900 d/d fanlar.
• Opsiyonel seçimler Buzçelik Teknik Uzmanı tarafından teyit edilmelidir.
• Standart veya düşük ses seviyeli bakım gerektirmeyen fan seçeneği.
• İsteğe bağlı AC ya da EC fan motor seçenekleri.
• Koruma sınıfı IP54, fan konstrüksiyonu izolasyon malzeme sınıfı F.
• Opsiyonel olarak seçilebilir fan aksesuar çeşitleri (FlowGrid gürültü düşürücüler vb.)
• Çalışma aralığı -40°C/+50°C'dir.

Fan

• Ø300 - Ø350 - Ø400 - Ø450 - Ø500 - Ø630 - Ø800 mm / 230V-50 Hz Monofase 800 - 1450 rpm/min. or 400V-50Hz-Trifase 650,900 rpm/min. fans.
• Selections should be confirmed by your Buzçelik Technical Specialist.
• Standard or low noise level are available.
• Different kinds of motors available as optional. (EC or AC)
• Motor protection IP54 insulation class F
• Different kinds of accessories available as optional. (FlowGrid ete.)
• Working conditions -40°C/+50°C.

KAPASİTE

Nominal kapasiteler ΔT = 15°C koşulunda R404A gaza göre Eurovent EN 328 standartları dikkate alınarak verilmiştir.

Capacity

The nominal capacities calculated according to Eurovent EN328 standards that refer to ΔT = 15°C condition and are valid for R404A

SEÇENEKLER

• Farklı dış kabin rengi.
• Monofaze 220V 1 ~ 50Hz, Trifaze 400V 3~ 50Hz fan seçeneği.
• Kondenser üniteleri kompresörsüz imal edilirler.
• Opsiyonel olarak likit depolu veya elektrik panolu yapılırlar. Korozif atmosferlerde çalışma durumunda epoksi, hidrofilik kaplı alüminyum kanatlar ve komple epoksi kaplı batarya opsiyonel olarak kullanılır.
• Katalogda belirtilmeyen özel ürünler için lütfen satış departmanı ile irtibata geçin.

Options

• Different casing color.
• Mono phase 220V 1 ~ 50Hz fan or three phase 400V 3~ 50 Hz fan
• Condenser units are manufactured without compressors.
• As optional condenser units can be manufactured with liquid receiver or electric boards. Other materials are available as optional against corrosive atmosphere conditions Epoxy, hydrophilic coated aluminum fins or complete epoxy coated coil is optional.
• Please keep in touch with our sales department about your special needs that are not mentioned in the catalogue.

NOT

Montaj, Bakım - Taşıma ve Kaldırma detayları için kullanım Kılavuzuna başvurunuz.

Note

Please read "Installation, Operation and Maintenance Instructions" for mounting and maintenance.

Options As Listed Are Available On Request For Assistance Please Contact Buzçelik Branch
Talep Üzerine Listelenen Özelliklerin Üretimi Mümkündür. Yardım İçin Lütfen Buzçelik Satış Birimi İle İletişime Geçiniz.

ADLANDIRMA
CLASSIFICATION

80 KUK 311 2,1

Fan Çapı Fan Diameter	Ticari Tip Commercial Type	Fan Dizisi Fan Array	Ürün Numarası Product Number	Hatve Aralığı Fin Space
Q ... cm	BZBOX / SHBOX : 2522-3/8” BZSBOX / SHLBOX : 2522-5/16” BZKBOX : 3228-3/8” EBOX / DEBOX : 3228-3/8” MTBOX / MSBOX : 2522-3/8” - 2522-5/16” KUK/ KUY : 3228-3/8” - 3228-1 /2”	Sütun x Satır Column x Row		

KAPASİTE STANDARTLARI
CAPACITY STANDARD

Akışkan	:	R404A
Hava Giriş Sıcaklığı (Tai)	:	25°C
Kondenzasyon Sıcaklığı (Tc)	:	40°C
ΔT = Tc-Tai	:	40°C - 25°C = 15°C
Rakım	:	0m

KONDENSER SEÇİMİ

Nominal condenser kapasitesi aşağıdaki formüller vasıtası ile hesaplanabilir.

Formül 1

Qnk = [(Q+N) x f2 x f3 x f5) / (f4 x f6)

Qnk: Nominal kondenser kapasitesi

Q: Kompresörün soğutma kapasitesi

N : Kompresör motorunun çektiği güç

Q ve N kompresör kataloglarından bulunabilir.

Detaylı bilginin olmadığı durumlarda Formül 2 uygulanır.

Formül 2

Qnk=[Q x f1 x f2 x f3 x f5] / (f4 x f6)

Refrigerant	:	R404A
Air inlet Temperature (Tai)	:	25°C
Condensation Temperation (Tc)	:	40°C
ΔT=Tc-Tai	:	40°C - 25°C = 15°C
Altitude	:	0m

CONDENSER SELECTION

Nominal condenser capacity can be calculated by using formulas below.

Formul 1

Qnk = [(Q+N) x f2 x f3 x f5) / (f4 x f6)

Qnk: Nominal condenser capacity

Q: Refrigerating capacity of compressor

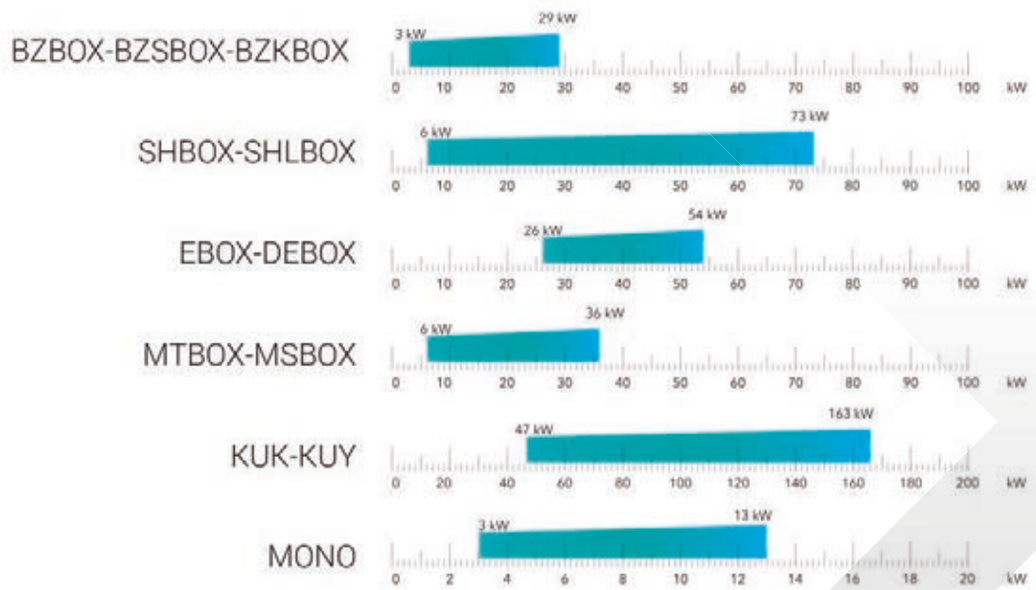
N : Absorbed compressor power

These data can be obtained from the compressor catalogues. If absorbed compressor power is unknown, please use Formula 2.

Formul 2

Qnk=[Q x f1 x f2 x f3 x f5] / (f4 x f6)

ÜRÜN KAPASİTE ARALIĞI
CAPACITY RANGE



(f_1) FAKTÖRÜ/ (f_1) FACTOR

Açık Kompresör/ Open Compressors							
Evaporasyon Sıcaklığı Evaporation Temperature °C	Kondenzasyon Sıcaklığı Condensation Temperature °C						
	30	35	40	45	50	55	60
-35	1,36	1,41	1,44	-	-	-	-
-30	1,31	1,36	1,40	1,44	-	-	-
-25	1,27	1,32	1,36	1,41	1,45	-	-
-20	1,24	1,28	1,31	1,35	1,39	1,44	-
-15	1,20	1,24	1,27	1,31	1,35	1,39	1,44
-10	1,18	1,21	1,24	1,27	1,31	1,35	1,40
-5	1,15	1,18	1,21	1,24	1,27	1,31	1,36
o	1,13	1,15	1,18	1,21	1,24	1,27	1,31
5	1,10	1,13	1,15	1,18	1,21	1,24	1,28
10	1,08	1,11	1,13	1,15	1,17	1,21	1,24

Hermetik ve Yarı-Hermetik Kompresör/ Hermetic and Semi-Hermetic Compressors							
Evaporasyon Sıcaklığı Evaporation Temperature °C	Kondenzasyon Sıcaklığı Condensation Temperature °C						
	30	35	40	45	50	55	60
-40	1,64	1,69	1,76	1,86	2,03	-	-
-35	1,56	1,61	1,66	1,73	1,83	-	-
-30	1,48	1,53	1,57	1,62	1,69	-	-
-25	1,42	1,46	1,5	1,54	1,6	1,68	-
-20	1,37	1,4	1,44	1,48	1,53	1,6	-
-15	1,32	1,35	1,38	1,43	1,48	1,53	1,58
-10	1,28	1,31	1,34	1,37	1,42	1,46	1,52
-5	1,23	1,26	1,29	1,33	1,37	1,41	1,45
o	1,2	1,22	1,25	1,28	1,32	1,36	1,39
5	1,16	1,19	1,21	1,24	1,28	1,31	1,34
10	1,13	1,15	1,18	1,21	1,23	1,26	1,29

(f_2) FAKTÖRÜ/ (f_2) Factor = 15/T1

(f_3) FAKTÖRÜ/ (f_3) FACTOR

Hava Giriş Sıcaklığı Faktörü / Air inlet Temperature Factor								
T(°C)	15	20	25	30	35	40	45	50
f_3	0,97	0,98	1	1,02	1,04	1,06	1,08	1,1

(f_4) FAKTÖRÜ/ (f_4) FACTOR

Soğutucu Akışkan Faktörü / Refrigerant Factor					
R	R134A	R22	R404A/R507	R407A	R407C
f_4	0,93	0,96	1	0,83	0,87

(f_5) FAKTÖRÜ/ (f_5) FACTOR

Rakım Faktörü / Altitude Factor							
H(m)	0	500	1000	1500	2000	2500	3000
f_5	1	1,04	1,07	1,11	1,16	1,21	1,25

(f_6) FAKTÖRÜ/ (f_6) FACTOR

Lamel Malzemesi Fin Material	Alüminyum Aluminum	Kaplı Alüminyum Coated Aluminum	Bakır Copper
f_6	1	0,97	1,03

Tablo-4 Lamel Malzemesi için Düzeltme Faktörleri Table-4 Fin Material Correction Factors			
Lamel Malzemesi Fin Material	Alüminyum Aluminum	Kaplı Alüminyum Coated Aluminum	Bakır Copper
K_3	1	0,97	1,03

KONDENSER SEÇİMİ
Nominal condenser kapasitesi aşağıdaki formüller vasıtası ile hesaplanabilir.

Formül 1
Qnk = [(Q+N) x f2 x f3 x f5) / (f4 x f6)
Qnk: Nominal kondenser kapasitesi
Q: Kompresörün soğutma kapasitesi
N : Kompresör motorunun çektiği güç
Q ve N kompresör kataloglarından bulunabilir.
Detaylı bilginin olmadığı durumlarda Formül 2 uygulanır.
Formül 2
Qnk=[Q x f1 x f2 x f3 x f5] / (f4 x f6)

CONDENSER SELECTION
Nominal condenser capacity can be calculated by using formulas below.

Formul 1
Qnk = [(Q+N) x f2 x f3 x f5) / (f4 x f6)
Qnk: Nominal condenser capacity
Q: Refrigerating capacity of compressor
N : Absorbed compressor power
These data can be obtained from the compressor catalogues. If absorbed compressor power is unknown, please use Formula 2.
Formul 2
Qnk=[Q x f1 x f2 x f3 x f5] / (f4 x f6)

ÖRNEK SEÇİM / SELECTION EXAMPLE	
Kompresörün soğutma kapasitesi / Refrigerating Capacity of Compressor	55.800.Watt/h
Kompresör Motorunun Çektiği Güç/ Absorbed Compressor Power	17.200.Watt!h
Kompresör Tipi/ Compressor type	Semi-Hermetic
Evaporasyon Sıcaklığı/ Evaporation Temperature	-10°C
Hava Giriş Sıcaklığı/ Air inlet Temperature	+30°C
Kondenzasyon Sıcaklığı/ Condensation Temperature	+40°C
Rakım/ Altitude	1000m
Soğutucu Akışkan/ Refrigerant	R404A
Lamel Malzemesi/ Fin Material	Aluminum
f2=1,5 /f3= 1,02 /f4=1 /f5=1,07 /f6=1	119.500.Wat t/h
Seçilen Kondenser / Selected Condenser	80KUK311 2,5

BZBOX Serisi
BZBOX Serie

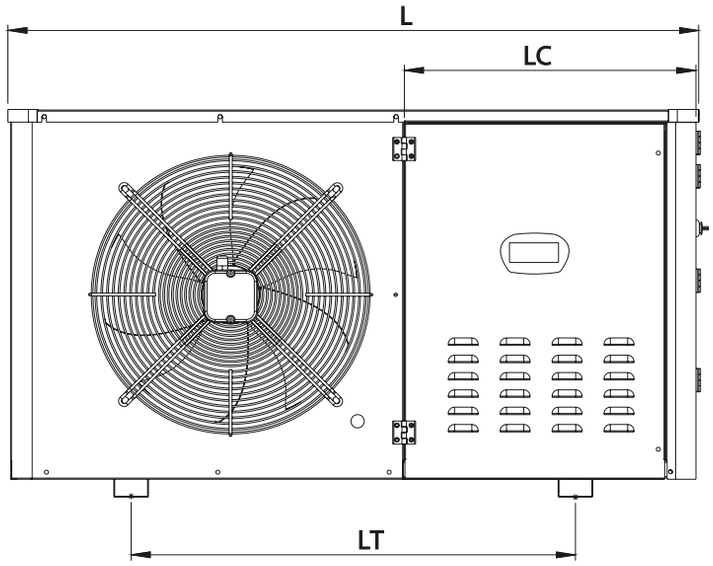
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

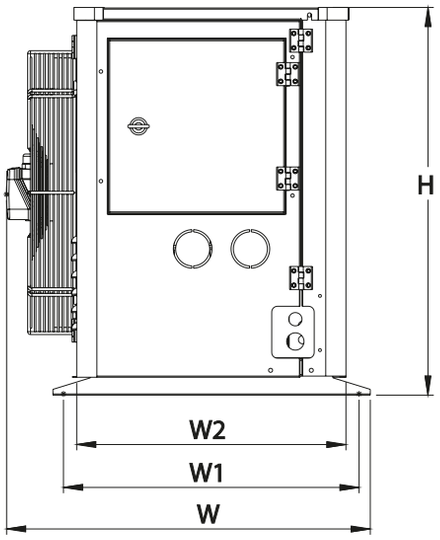
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S **1/ 230V AC 50Hz** **1400 rpm**	**L** **1/ 230V AC 50Hz** **900 rpm**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S** **Hava Debisi** Air Flow 1400 rpm	**L** **Hava Debisi** Air Flow 900 rpm
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m3/h)	(m3/h)
BZBOX 07	6,19	0,80	2.902	2.700	1	300	72	2.150	1.670
BZBOX 10	11,92	1,20	4.690	3.950		300	72	2.080	1.530
BZBOX 15	12,08	1,50	5.865	5.180		350	165	2.800	2.120
BZBOX 20NR	16,67	1,80	8.668	7.410		400	160	3.748	2.747
BZBOX 30NR	20,74	2,70	10.266	8.870		450	245	4.904	9.365
BZBOX 40NR	24,75	3,20	13.474	10.801		500	590	7.848	4.725
BZBOX 50NR	37,21	4,70	17.274	16.000	2	400	320	7.528	5.543
BZBOX 60NR	38,20	4,80	18.476	16.960		450	490	9.693	7.812
BZBOX 70NR	46,48	5,80	20.670	18.710		450	490	10.038	8.164
BZBOX 20TR	23,82	2,60	10.137	8.750	1	400	160	3.514	2.547
BZBOX 30TR	29,67	3,80	11.309	10.690		450	245	4.560	3.613
BZBOX 40TR	36,48	4,70	16.024	13.201		500	590	7.096	4.305
BZBOX 50TR	53,98	6,60	22.447	19.280	2	400	320	7.093	5.159
BZBOX 60TR	55,45	6,80	24.329	20.530		450	490	8.955	7.039
BZBOX 70TR	68,69	8,60	26.749	22.910		450	490	9.448	7.578





Model Model	**Boyutlar** / Dimensions							**Bağlantılar** / Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**LT**	**LC**	**W1**	**W2**	**Giriş** Input	**Çıkış** Output	
	cm	**cm**	**cm**	**cm**	**cm**	**cm**	**cm**	**mm/**	**mm/**	
BZBOX 07	90	53	53	49,5	30	40	36	3/8	3/8	D
BZBOX 10	90	53	53	49,5	30	40	36	5/8	1/2	D
BZBOX 15	90	53	53	49,5	30	40	36	5/8	1/2	E
BZBOX 20NR	102	67	64	49,5	43	50	47	5/8	1/2	D
BZBOX 30NR	122	67	64	77	50	50	47	5/8	1/2	D
BZBOX 40NR	122	72	64	77	50	50	47	19	1/2	E
BZBOX 50NR	122	121	64	77	50	50	47	22	5/8	D
BZBOX 60NR	122	121	64	77	50	50	47	22	5/8	D
BZBOX 70NR	122	121	64	77	50	50	47	22	5/8	D
BZBOX 20TR	102	67	64	77	43	50	47	5/8	1/2	D
BZBOX 30TR	122	67	64	77	50	50	47	5/8	1/2	D
BZBOX 40TR	122	72	64	77	50	50	47	19	1/2	E
BZBOX 50TR	122	121	64	77	50	50	47	22	5/8	C
BZBOX 60TR	122	121	64	77	50	50	47	22	5/8	D
BZBOX 70TR	122	121	64	77	50	50	47	22	5/8	D

BZSBOX Serisi
BZSBOX Serie

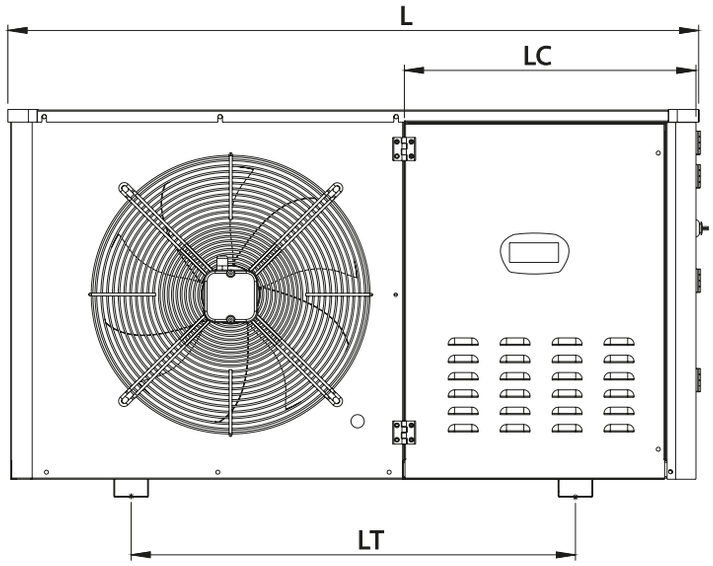
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

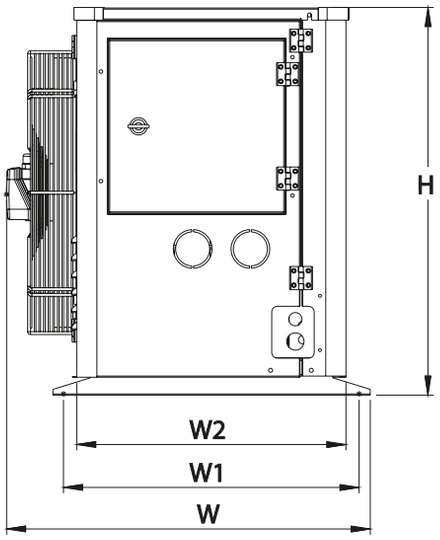
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/16"

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S **1/ 230V AC 50Hz 1400 rpm**	**L** **1/ 230V AC 50Hz 900 rpm**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S** **Hava Debisi** Air Flow 1400 rpm	**L** **Hava Debisi** Air Flow 900 rpm
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m3/h)	(m3/h)
BZSBOX 07	6,49	0,5	2.440	2.606	1	300	72	1.702	1.470
BZSBOX 10	12,84	0,9	4.690	4.098		300	72	2.065	1.656
BZSBOX 15	12,98	1,1	6.000	5.045		350	165	2.842	1.860
BZSBOX 20NR	19,56	1,4	8.200	7.578		400	160	3.812	2.812
BZSBOX 30NR	21,89	1,8	10.260	8.494		450	245	5.011	4.070
BZSBOX 40NR	22,56	1,9	13.840	10.284		500	590	8.115	4.893
BZSBOX 50NR	40,90	3,2	17.550	15.386	2	400	320	7.649	5.655
BZSBOX 60NR	40,90	3,2	19.600	15.685		450	490	9.923	8.049
BZSBOX 70NR	49,90	3,9	21.900	17.472		450	490	10.219	8.352
BZSBOX 20TR	27,76	2,0	10.200	8.754	1	400	160	3.603	2.627
BZSBOX 30TR	31,24	2,6	12.900	10.179		450	245	4.699	3.754
BZSBOX 40TR	33,84	2,9	17.300	12.307		500	590	7.456	4.492
BZSBOX 50TR	58,43	4,7	20.500	19.072	2	400	320	7.270	5.303
BZSBOX 60TR	58,43	4,7	24.110	19.790		450	490	9.251	7.367
BZSBOX 70TR	72,04	5,9	27.700	21.774		450	490	9.686	6.999





Model Model	**Boyutlar** / Dimensions							**Bağlantılar** / Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**LT**	**LC**	**W1**	**W2**	**Giriş** Input	**Çıkış** Output	
	cm	**cm**	**cm**	**cm**	**cm**	**cm**	**cm**	**mm/**	**mm/**	
BZSBOX 07	90	53	53	49,5	36	41	36,5	3/8	3/8	E
BZSBOX 10	90	53	53	49,5	36	41	36,5	5/8	1/2	D
BZSBOX 15	90	53	53	49,5	36	41	36,5	5/8	1/2	E
BZSBOX 20NR	102	69	65	49,5	43	52	47,5	5/8	1/2	D
BZSBOX 30NR	122	69	65	77	53	52	47,5	5/8	1/2	D
BZSBOX 40NR	122	73	65	77	53	52	47,5	19	1/2	E
BZSBOX 50NR	122	120	65	77	53	52	47,5	22	5/8	D
BZSBOX 60NR	122	120	65	77	53	52	47,5	22	5/8	D
BZSBOX 70NR	122	120	65	77	53	52	47,5	22	5/8	D
BZSBOX 20TR	102	69	65	77	43	52	47,5	5/8	1/2	D
BZSBOX 30TR	122	69	65	77	53	52	47,5	5/8	1/2	D
BZSBOX 40TR	122	73	65	77	53	52	47,5	19	1/2	E
BZSBOX 50TR	122	120	65	77	53	52	47,5	22	5/8	D
BZSBOX 60TR	122	120	65	77	53	52	47,5	22	5/8	D
BZSBOX 70TR	122	120	65	77	53	52	47,5	22	5/8	D

BZKBOX Serisi
BZKBOX Serie

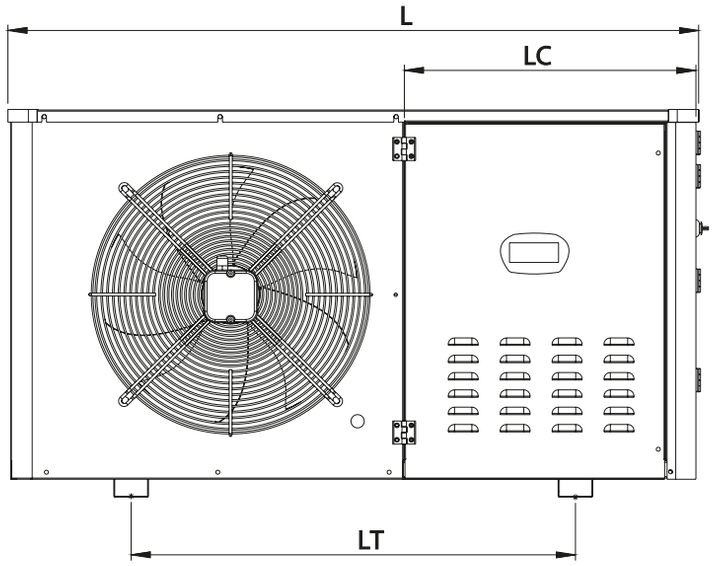
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

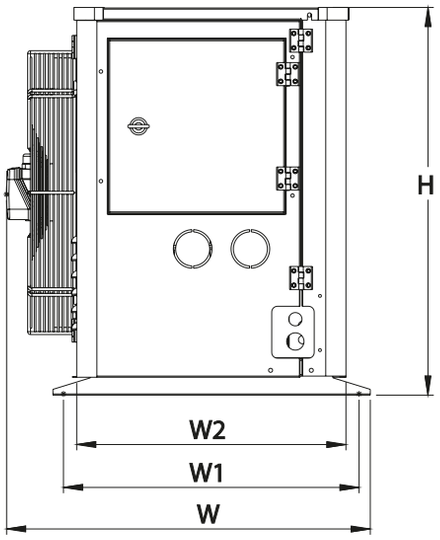
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S **1/ 230V AC 50Hz** **1400 rpm**	**L** **1/ 230V AC 50Hz** **900 rpm**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S** **Hava Debisi** Air Flow 1400 rpm	**L** **Hava Debisi** Air Flow 900 rpm
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m3/h)	(m3/h)
BZKBOX 07	6,94	0,6	2.470	2.178	1	300	72	1.707	1.365
BZKBOX 10	13,65	1,1	3.906	3.482		300	72	1.633	1.370
BZKBOX 15	13,80	1,2	5.688	4.414		350	165	2.882	1.883
BZKBOX 20NR	21,19	1,8	8.031	6.703		400	160	3.856	2.860
BZKBOX 30NR	23,76	2,0	9.013	8.005		450	245	5.085	4.141
BZKBOX 40NR	23,86	2,1	12.429	9.447		500	590	8.228	4.968
BZKBOX 50NR	43,73	3,6	15.747	13.118	2	400	320	7.711	5.719
BZKBOX 60NR	45,47	3,6	18.773	16.651		450	490	9.989	8.117
BZKBOX 70NR	53,35	4,3	20.636	18.324		450	490	10.300	8.421
BZKBOX 20TR	30,40	2,6	8.934	7.138	1	400	160	3.774	2.675
BZKBOX 30TR	33,92	2,9	11.142	9.708		450	245	4.790	3.854
BZKBOX 40TR	35,69	3,0	16.000	11.750		500	590	7.606	4.576
BZKBOX 50TR	62,41	5,1	20.191	16.365	2	400	320	7.370	5.383
BZKBOX 60TR	64,90	5,1	23.173	20.071		450	490	9.366	7.484
BZKBOX 70TR	76,84	6,1	26.062	22.688		450	490	9.817	7.953





Model Model	**Boyutlar** / Dimensions							**Bağlantılar** / Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**LT**	**LC**	**W1**	**W2**	**Giriş** Input	**Çıkış** Output	
	cm	**cm**	**cm**	**cm**	**cm**	**cm**	**cm**	**mm/**	**mm/**	
BZKBOX 07	90	53	53	49,5	36	41	36,5	3/8	3/8	E
BZKBOX 10	90	53	53	49,5	36	41	36,5	5/8	1/2	D
BZKBOX 15	90	53	53	49,5	36	41	36,5	5/8	1/2	E
BZKBOX 20NR	102	69	65	49,5	43	52	47,5	5/8	1/2	D
BZKBOX 30NR	122	69	65	77	53	52	47,5	5/8	1/2	D
BZKBOX 40NR	122	73	65	77	53	52	47,5	19	1/2	E
BZKBOX 50NR	122	120	65	77	53	52	47,5	22	5/8	D
BZKBOX 60NR	122	120	65	77	53	52	47,5	22	5/8	D
BZKBOX 70NR	122	120	65	77	53	52	47,5	22	5/8	D
BZKBOX 20TR	102	69	65	77	43	52	47,5	5/8	1/2	D
BZKBOX 30TR	122	69	65	77	53	52	47,5	5/8	1/2	D
BZKBOX 40TR	122	73	65	77	53	52	47,5	19	1/2	E
BZKBOX 50TR	122	120	65	77	53	52	47,5	22	5/8	D
BZKBOX 60TR	122	120	65	77	53	52	47,5	22	5/8	D
BZKBOX 70TR	122	120	65	77	53	52	47,5	22	5/8	D

SHBOX Serisi
SHBOX Serie

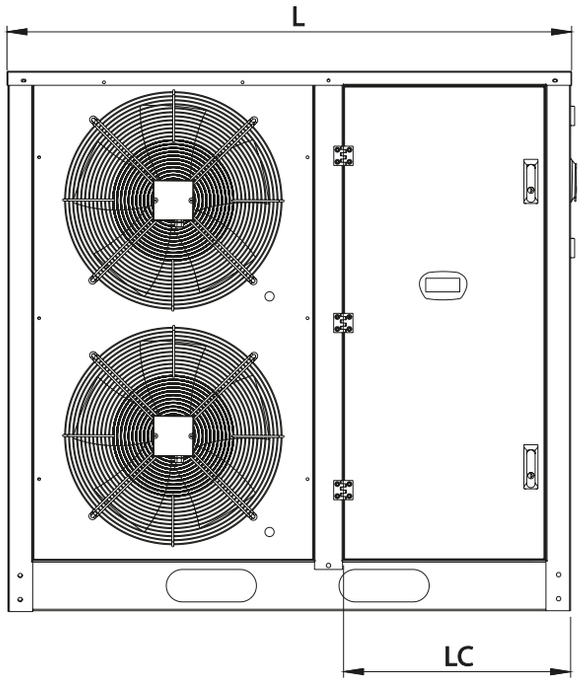
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

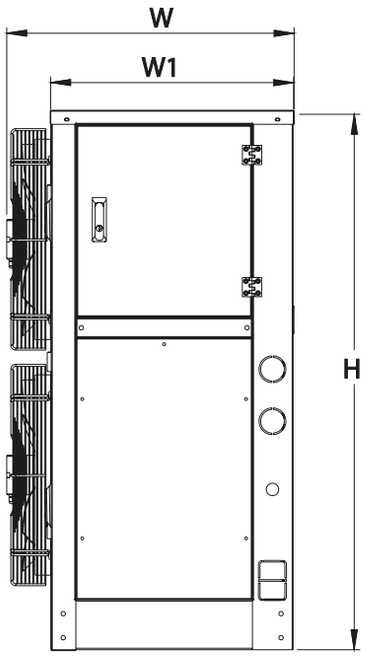
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S **1/ 230V AC 50Hz 1400 rpm**	**L** **1/ 230V AC 50Hz 900 rpm**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S** **Hava Debisi** Air Flow 1400 rpm	**L** **Hava Debisi** Air Flow 900 rpm
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m3/h)	(m3/h)
35SHBOX1 110	17,06	1,80	7.097	5.333	1	350	165	2.940	2.370
40SHBOX1 110	17,24	2,20	9.120	7.780		400	160	4.240	3.300
35SHBOX1 111	25,01	2,70	8.770	7.320		350	165	2.840	2.200
40SHBOX1 111	25,27	3,20	11.260	9.250		400	160	4.000	2.960
45SHBOX2 110	21,82	2,80	11.090	9.010		450	245	5.040	3.650
50SHBOX2 110	21,82	2,80	14.190	12.530		500	590	7.570	6.130
45SHBOX2 111 2,5	27,33	4,10	12.810	10.190		450	245	4.890	3.510
50SHBOX2 111 2,5	27,33	4,10	16.380	14.130		500	590	7.120	5.660
45SHBOX2 111	32,15	4,10	13.920	10.960		450	245	4.830	3.450
50SHBOX2 111	32,15	4,10	17.730	15.200		500	590	6.930	5.490
45SHBOX3 120	48,23	6,20	23.320	18.970	2	450	490	10.200	7.430
50SHBOX3 120	48,23	6,20	30.160	26.740		500	1180	15.560	12.710
45SHBOX3 121 2,5	60,50	9,10	27.020	21.510		450	490	9.950	7.180
50SHBOX3 121 2,5	60,50	9,10	34.970	30.350		500	1180	14.730	11.830
45SHBOX3 121	71,17	9,10	29.290	23.110		450	490	9.840	7.080
50SHBOX3 121	71,17	9,10	37.940	32.640		500	1180	14.440	11.520
40SHBOX4 220	89,49	11,50	41.260	35.710	4	400	640	17.610	14.160
45SHBOX4 220	89,49	11,50	45.110	36.610		450	980	20.210	14.700
50SHBOX4 220	89,49	11,50	57.930	51.190		500	2360	30.490	24.790
40SHBOX4 221 2,5	113,11	17,00	47.660	40.250		400	640	17.180	13.530
45SHBOX4 221 2,5	113,11	17,00	52.340	41.600		450	980	19.670	14.160
50SHBOX4 221 2,5	113,11	17,00	67.230	58.040		500	2360	28.830	22.980
40SHBOX4 221	133,06	17,00	51.630	43.080		400	640	16.990	13.250
45SHBOX4 221	133,06	17,00	56.820	44.770		450	980	19.460	13.960
50SHBOX4 221	133,06	17,00	72.870	62.490		500	2360	28.130	22.340





Model Model	**Boyutlar** / Dimensions					**Bağlantılar** / Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**LC**	**W1**	**Giriş** Input	**Çıkış** Output	
	cm	**cm**	**cm**	**cm**	**cm**	**mm/**	**mm/**	
35SHBOX1 110	102	68,5	58	43	46	5/8	1/2	D
40SHBOX1 110	102	68,5	58	43	46	5/8	1/2	D
35SHBOX1 111	102	68,5	58	43	46	5/8	1/2	D
40SHBOX1 111	102	68,5	58	43	46	5/8	1/2	C
45SHBOX2 110	122	68,5	58	43	46	19	5/8	D
50SHBOX2 110	122	68,5	58	43	46	19	5/8	E
45SHBOX2 111 2,5	122	68,5	58	43	46	19	5/8	D
50SHBOX2 111 2,5	122	68,5	58	43	46	19	5/8	E
45SHBOX2 111	122	68,5	58	43	46	19	5/8	D
50SHBOX2 111	122	68,5	58	43	46	19	5/8	E
45SHBOX3 120	142	134	74	56	61	22	19	D
50SHBOX3 120	142	134	74	56	61	22	19	E
45SHBOX3 121 2,5	142	134	74	56	61	28	22	D
50SHBOX3 121 2,5	142	134	74	56	61	28	22	E
45SHBOX3 121	142	134	74	56	61	28	22	D
50SHBOX3 121	142	134	74	56	61	28	22	E
40SHBOX4 220	222	134	94	65	81	35	28	D
45SHBOX4 220	222	134	94	65	81	35	28	D
50SHBOX4 220	222	134	94	65	81	35	28	E
40SHBOX4 221 2,5	222	134	94	65	81	35	28	C
45SHBOX4 221 2,5	222	134	94	65	81	35	28	D
50SHBOX4 221 2,5	222	134	94	65	81	35	28	E
40SHBOX4 221	222	134	94	65	81	35	28	C
45SHBOX4 221	222	134	94	65	81	35	28	D
50SHBOX4 221	222	134	94	65	81	35	28	E

SHLBOX Serisi
SHLBOX Serie

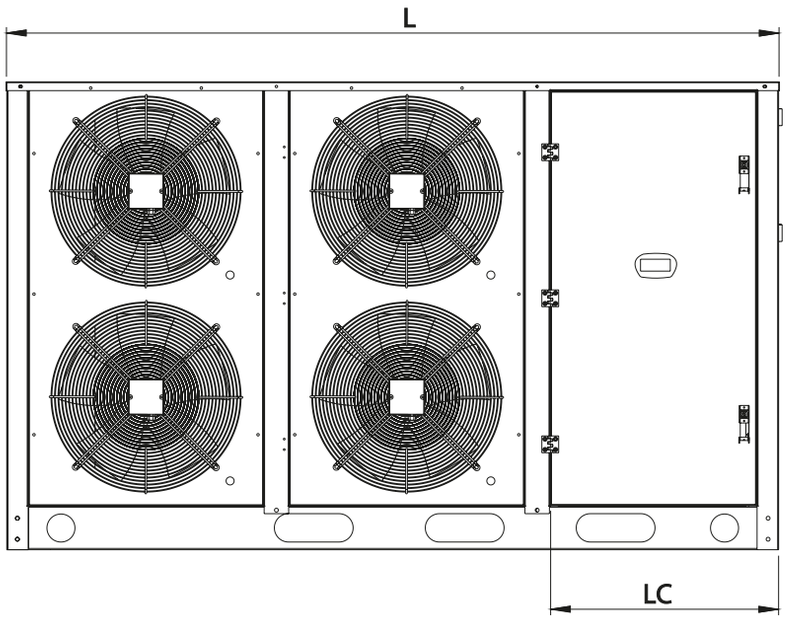
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

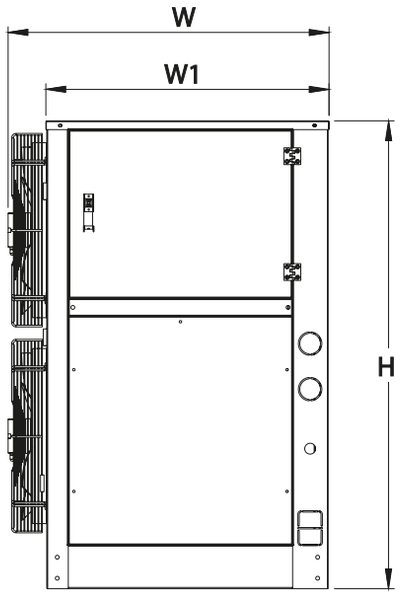
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/16"

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S **1/ 230V AC 50Hz 1400 rpm**	**L** **1/ 230V AC 50Hz 900 rpm**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S** **Hava Debisi** Air Flow 1400 rpm	**L** **Hava Debisi** Air Flow 900 rpm
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m3/h)	(m3/h)
35SHLBOX1 110	17,65	1,3	6.202	4.732	1	350	165	3.041	2.001
40SHLBOX1 110	17,80	1,5	7.451	6.181		400	160	3.843	2.843
35SHLBOX1 111	25,88	1,9	8.000	5.941		350	165	2.930	1.919
40SHLBOX1 111	26,10	2,2	9.490	7.668		400	160	3.670	2.683
45SHLBOX2 110	22,54	1,9	9.617	8.497		450	245	5.150	4.211
50SHLBOX2 110	22,54	1,9	12.777	9.569		500	590	8.417	5.108
45SHLBOX2 111 2,5	28,16	2,8	11.568	10.120		450	245	4.986	4.046
50SHLBOX2 111 2,5	28,16	2,8	15.000	11.321		500	590	8.010	4.819
45SHLBOX2 111	33,21	2,8	12.308	10.679		450	245	4.925	3.988
50SHLBOX2 111	33,21	2,8	16.519	11.960		500	590	7.842	4.716
45SHLBOX3 120	49,82	4,3	20.366	18.000	2	450	490	10.415	8.545
50SHLBOX3 120	49,82	4,3	27.242	20.350		500	1180	17.136	10.403
45SHLBOX3 121 2,5	62,35	6,3	24.287	21.305		450	490	10.120	8.258
50SHLBOX3 121 2,5	62,35	6,3	32.106	23.457		500	1180	16.430	9.936
45SHLBOX3 121	73,52	6,3	26.043	22.626		450	490	10.005	8.141
50SHLBOX3 121	73,52	6,3	35.369	25.562		500	1180	16.142	9.730
40SHLBOX4 220	92,43	7,9	34.018	28.285	4	400	640	15.752	11.791
45SHLBOX4 220	92,43	7,9	40.059	35.510		450	980	20.667	16.891
50SHLBOX4 220	92,43	7,9	52.112	38.930		500	2360	33.827	20.507
40SHLBOX4 221 2,5	116,56	11,8	39.800	32.494		400	640	15.398	11.438
45SHLBOX4 221 2,5	116,56	11,8	47.227	41.334		450	980	20.044	16.305
50SHLBOX4 221 2,5	116,56	11,8	61.251	44.941		500	2360	32.310	19.500
40SHLBOX4 221	137,44	11,8	43.459	35.153		400	640	15.259	11.278
45SHLBOX4 221	137,44	11,8	51.678	44.970		450	980	19.798	16.047
50SHLBOX4 221	137,44	11,8	67.809	49.046		500	2360	31.681	19.088





Model Model	**Boyutlar** / Dimensions					**Bağlantılar** / Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**LC**	**W1**	**Giriş** Input	**Çıkış** Output	
	cm	**cm**	**cm**	**cm**	**cm**	**mm/**	**mm/**	
35SHLBOX1 110	102	69	58	43	46	5/8	1/2	D
40SHLBOX1 110	102	69	58	43	46	5/8	1/2	D
35SHLBOX1 111	102	69	58	43	46	5/8	1/2	D
40SHLBOX1 111	102	69	58	43	46	5/8	1/2	D
45SHLBOX2 110	122	69	58	43	46	19	5/8	D
50SHLBOX2 110	122	69	58	43	46	19	5/8	E
45SHLBOX2 111 2,5	122	69	58	43	46	19	5/8	D
50SHLBOX2 111 2,5	122	69	58	43	46	19	5/8	E
45SHLBOX2 111	122	69	58	43	46	19	5/8	D
50SHLBOX2 111	122	69	58	43	46	19	5/8	E
45SHLBOX3 120	142	134	74	56	61	22	19	D
50SHLBOX3 120	142	134	74	56	61	22	19	E
45SHLBOX3 121 2,5	142	134	74	56	61	28	22	D
50SHLBOX3 121 2,5	142	134	74	56	61	28	22	E
45SHLBOX3 121	142	134	74	56	61	28	22	D
50SHLBOX3 121	142	134	74	56	61	28	22	E
40SHLBOX4 220	222	134	94	65	81	35	28	D
45SHLBOX4 220	222	134	94	65	81	35	28	D
50SHLBOX4 220	222	134	94	65	81	35	28	E
40SHLBOX4 221 2,5	222	134	94	65	81	35	28	D
45SHLBOX4 221 2,5	222	134	94	65	81	35	28	D
50SHLBOX4 221 2,5	222	134	94	65	81	35	28	E
40SHLBOX4 221	222	134	94	65	81	35	28	D
45SHLBOX4 221	222	134	94	65	81	35	28	D
50SHLBOX4 221	222	134	94	65	81	35	28	E

EBOX Serisi
EBOX Serie

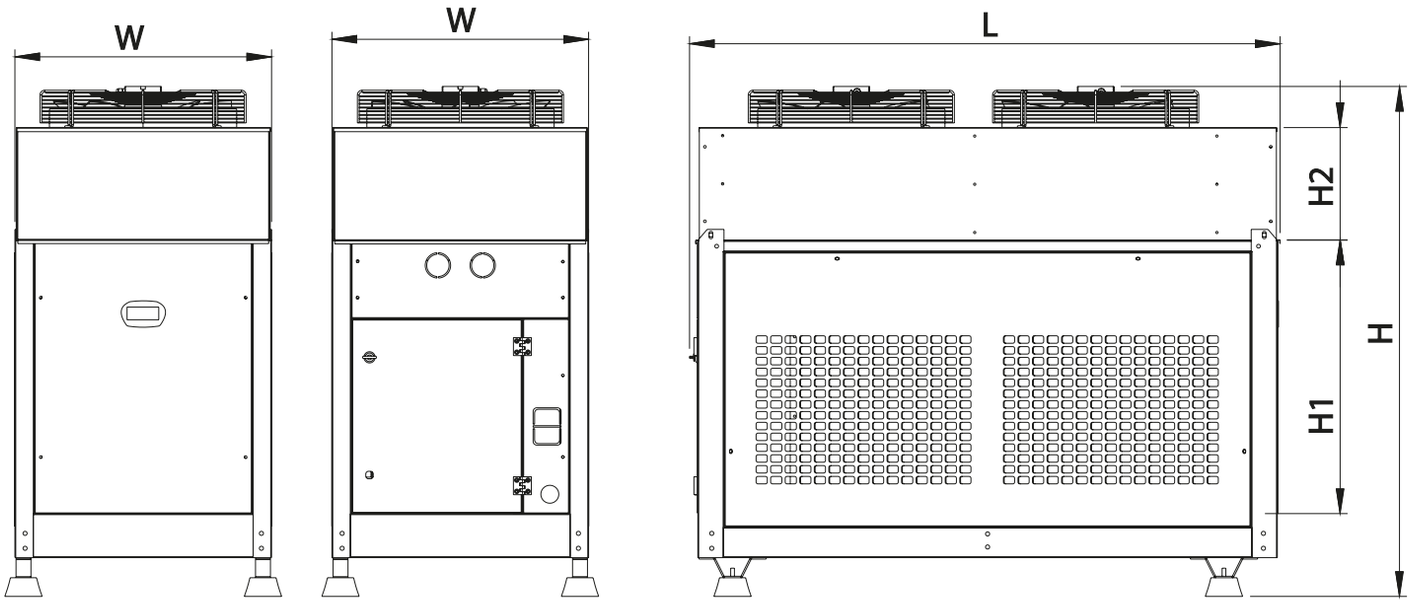
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S 1/ 230V AC 50Hz 1400 rpm	**L 1/ 230V AC 50Hz 900 rpm**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow 1400 rpm	**L Hava Debisi** Air Flow 900 rpm
	(m^2)	**(dm^3)**	**(Watt)**	**(Watt)**	**(n)**	**(Ømm)**	**(Watt)**	**(m3/h)**	**(m3/h)**
EBOX53 50211	64,00	4,40	27.770	20.750	2	500	1180	13.418	8.142
EBOX63 50211	63,45	4,40	29.840	21.940		500	1180	12.974	7.844
EBOX71 50212	71,73	6,40	31.720	22.870		500	1180	12.228	7.378
EBOX84 50212	84,80	6,40	33.830	-		500	1180	11.744	-
EBOX89 50213	89,66	7,90	34.800	-		500	1180	11.220	-
EBOX94 50311	95,40	7,10	45.860	33.680	3	500	1770	19.461	11.766
EBOX106 50312	107,48	9,30	48.910	35.180		500	1770	18.342	11.067
EBOX126 50312	127,09	9,30	52.120	-		500	1770	17.616	-
EBOX133 50313	134,27	11,40	53.120	-		500	1770	16.830	-
EBOX157 50313	158,77	11,40	54.480	-		500	1770	15.700	-
EBOX217 63312	216,55	15,80	-	72.140		630	1830	-	23.200
EBOX168 50222	167,64	12,40	65.000	-	4	500	2360	23.515	-
EBOX252 50322	251,46	18,60	101.009	-	6	500	3540	35.234	-
EBOX314 50323	314,15	22,90	107.000	-		500	3540	32.054	-



Model Model	**Boyutlar** / Dimensions					**Bağlantılar** / Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**H1**	**H2**	**Giriş** Input	**Çıkış** Output	
	cm	**cm**	**cm**	**cm**	**cm**	**mm/**	**mm/**	
EBOX53 50211	159	140	69	77	30	28	22	E
EBOX63 50211	159	140	69	77	30	28	22	E
EBOX71 50212	159	140	69	77	30	28	22	E
EBOX84 50212	159	140	69	77	30	28	22	E
EBOX89 50213	159	140	69	77	30	28	22	E
EBOX94 50311	224	140	69	77	30	28	22	E
EBOX106 50312	224	140	69	77	30	28	22	E
EBOX126 50312	224	140	69	77	30	35	28	E
EBOX133 50313	224	140	69	77	30	35	28	E
EBOX157 50313	224	140	69	77	30	35	28	E
EBOX217 63312	270	145	97	77	35	42	35	D
EBOX168 50222	159	140	133	77	30	42	35	E
EBOX252 50322	232	140	133	77	30	54	42	E
EBOX314 50323	232	140	133	77	30	54	42	E

DEBOX Serisi
DEBOX Serie

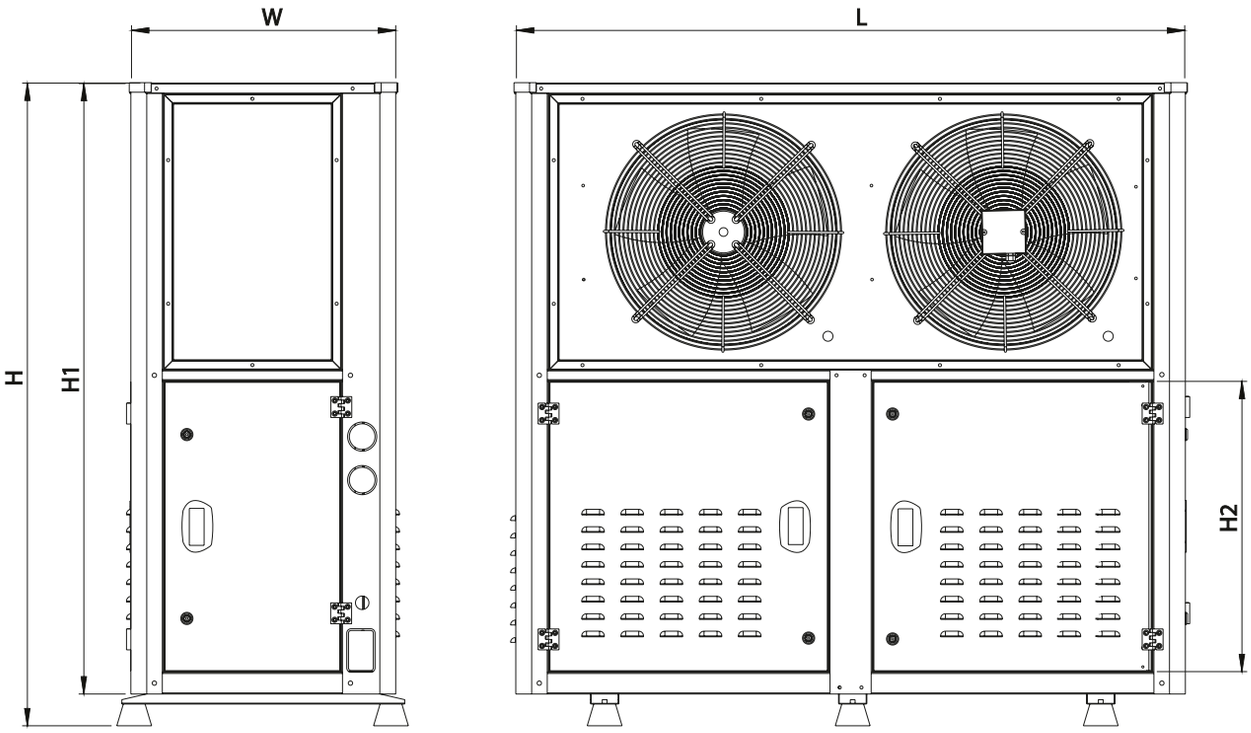
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S 1/ 230V AC 50Hz 1400 rpm	**L 1/ 230V AC 50Hz 900 rpm**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow 1400 rpm	**L Hava Debisi** Air Flow 900 rpm
	(m^2)	**(dm^3)**	**(Watt)**	**(Watt)**	**(n)**	**(Ømm)**	**(Watt)**	**(m3/h)**	**(m3/h)**
DEBOX53 50211	53,80	4,8	27.770	20.750	2	500	1180	13.418	8.125
DEBOX63 50211	63,60	4,8	29.840	21.940		500	1180	12.974	4.826
DEBOX71 50212	71,73	6,4	31.720	22.870		500	1180	12.228	7.378
DEBOX84 50212	84,80	6,4	33.830	-		500	1180	11.744	-
DEBOX89 50213	89,66	8,0	34.800	-		500	1180	11.220	-
DEBOX94 50311	95,40	7,2	45.860	33.680	3	500	1770	19.461	11.739
DEBOX106 50312	107,60	9,6	48.910	35.180		500	1770	18.342	11.039
DEBOX126 50312	127,20	9,6	52.120	-		500	1770	17.616	-
DEBOX133 50313	134,49	12,0	53.120	-		500	1770	16.830	-
DEBOX157 50313	159,02	12,0	54.480	-		500	1770	15.700	-



Model Model	**Boyutlar** / Dimensions					**Bağlantılar** / Connections		**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**H1**	**H2**	**Giriş** Input	**Çıkış** Output	
	cm	**cm**	**cm**	**cm**	**cm**	**mm/**	**mm/**	
DEBOX53 50211	155	147	62	140	67	28	22	E
DEBOX63 50211	155	147	62	140	67	28	22	E
DEBOX71 50212	155	147	62	140	67	28	22	E
DEBOX84 50212	155	147	62	140	67	28	22	E
DEBOX89 50213	155	147	62	140	67	28	22	E
DEBOX94 50311	220	147	62	140	67	28	22	E
DEBOX106 50312	220	147	62	140	67	28	22	E
DEBOX126 50312	220	147	62	140	67	35	28	E
DEBOX133 50313	220	147	62	140	67	35	28	E
DEBOX157 50313	220	147	62	140	67	35	28	E

MTBOX Serisi
MTBOX Serie

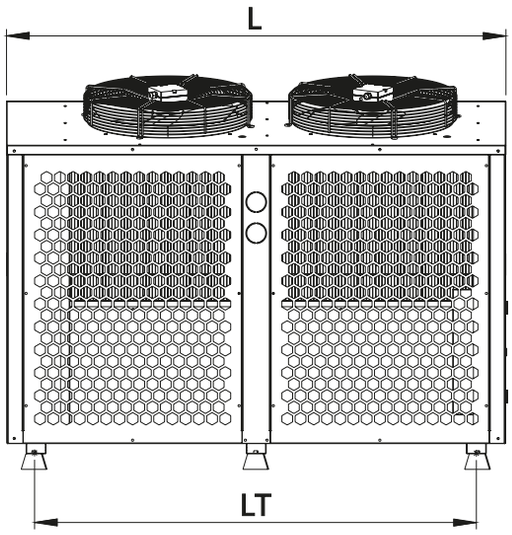
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

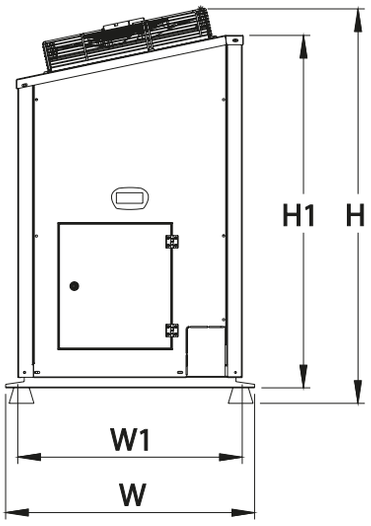
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S 1/ 230V AC 50Hz 1400 rpm	**L 1/ 230V AC 50Hz 900 rpm**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow 1400 rpm	**L Hava Debisi** Air Flow 900 rpm
	(m^2)	**(dm^3)**	**(Watt)**	**(Watt)**	**(n)**	**(Ømm)**	**(Watt)**	**(m3/h)**	**(m3/h)**
MTBOX 15	15,16	1,9	6.750	5.070	1	350	165	2.876	1.884
MTBOX 20	20,88	2,9	9.370	7.450		400	160	3.382	2.435
MTBOX 30	30,32	3,8	12.490	10.040		450	245	3.854	2.875
MTBOX 35	36,02	5,1	17.500	13.940	2	400	320	6.568	4.694
MTBOX 40	40,81	5,1	18.500	14.640		400	320	6.442	4.598
MTBOX 45	46,25	6,9	19.500	15.170		400	320	6.170	4.382
MTBOX 50	52,10	6,9	20.290	15.660		400	320	6.044	4.278
MTBOX 60	60,12	8,9	25.800	21.200		450	490	8.447	6.453
MTBOX 70	70,75	8,9	34.960	24.200		500	1180	11.575	7.002
MTBOX 80	81,22	11,1	36.450	25.514		500	1180	10.789	6.903





Model Model	**Boyutlar** / Dimensions						**Bağlantılar** / Connections		**Enerji Sınıfı** Energy Consumption
	L	H	W	LT	H1	W1	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm)**	**(mm)**	
MTBOX 15	96	100	65	77	84,5	57,5	19	16	D
MTBOX 20	96	100	65	77	84,5	57,5	22	19	D
MTBOX 30	96	100	65	77	84,5	57,5	22	19	D
MTBOX 35	131	131	80	112	114,5	73	22	19	D
MTBOX 40	131	131	80	112	114,5	73	28	22	D
MTBOX 45	131	131	80	112	114,5	73	28	22	D
MTBOX 50	131	131	80	112	114,5	73	28	22	D
MTBOX 60	161	131	80	143	114,5	73	42	35	D
MTBOX 70	161	131	80	143	114,5	73	42	35	E
MTBOX 80	161	131	80	143	114,5	73	42	35	E

MSBOX Serisi
MSBOX Serie

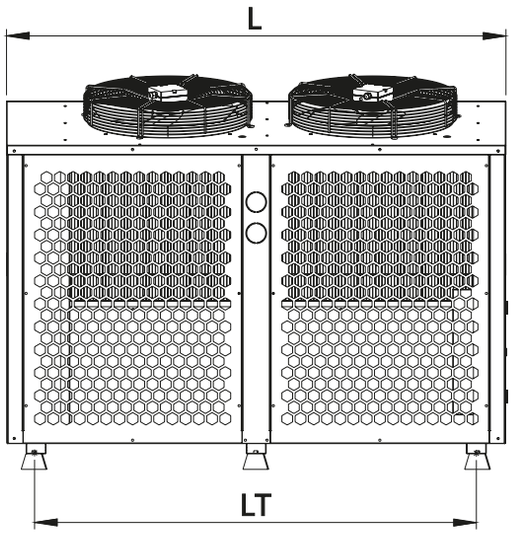
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

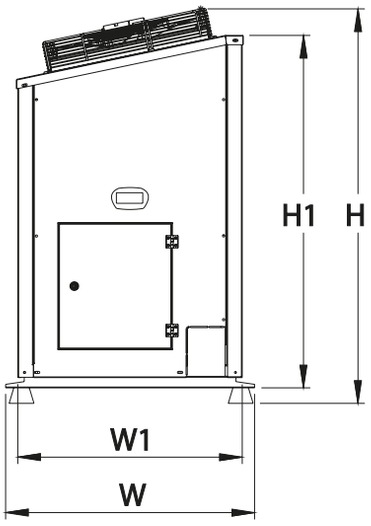
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/16”

Hatve / Fin Spacing : 1,8 mm - 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S 1/ 230V AC 50Hz 1400 rpm	**L 1/ 230V AC 50Hz 900 rpm**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow 1400 rpm	**L Hava Debisi** Air Flow 900 rpm
	(m^2)	**(dm^3)**	**(Watt)**	**(Watt)**	**(n)**	**(Ømm)**	**(Watt)**	**(m3/h)**	**(m3/h)**
MSBOX 15	15,65	1,3	6.520	4.980	1	350	165	2.991	1.966
MSBOX 20	21,53	2,0	8.920	7.180		400	160	3.616	2.627
MSBOX 30	29,80	2,6	12.440	10.230		450	245	4.273	3.273
MSBOX 35	37,13	3,6	16.860	13.700	2	400	320	7.080	5.143
MSBOX 40	42,13	3,6	17.980	14.440		400	320	6.985	5.062
MSBOX 45	47,63	4,1	18.680	14.700		400	320	6.764	4.870
MSBOX 50	53,75	4,7	19.600	15.300		400	320	6.650	4.774
MSBOX 60	61,92	6,2	25.600	21.520		450	490	9.152	7.250
MSBOX 70	73,03	6,2	34.880	24.750		500	1180	13.302	8.069
MSBOX 80	83,74	7,7	36.350	25.464		500	1180	12.608	7.621





Model Model	**Boyutlar** / Dimensions						**Bağlantılar** / Connections		**Enerji Sınıfı** Energy Consumption
	L	H	W	LT	H1	W1	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm)**	**(mm)**	
MSBOX 15	96	100	65	77	84,5	57,5	19	16	D
MSBOX 20	96	100	65	77	84,5	57,5	22	19	D
MSBOX 30	96	100	65	77	84,5	57,5	22	19	D
MSBOX 35	131	131	80	112	114,5	73	22	19	D
MSBOX 40	131	131	80	112	114,5	73	28	22	D
MSBOX 45	131	131	80	112	114,5	73	28	22	D
MSBOX 50	131	131	80	112	114,5	73	28	22	D
MSBOX 60	161	131	80	143	114,5	73	42	35	D
MSBOX 70	161	131	80	143	114,5	73	42	35	E
MSBOX 80	161	131	80	143	114,5	73	42	35	E

63-80 KUK Serisi
63-80 KUK Serie

Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

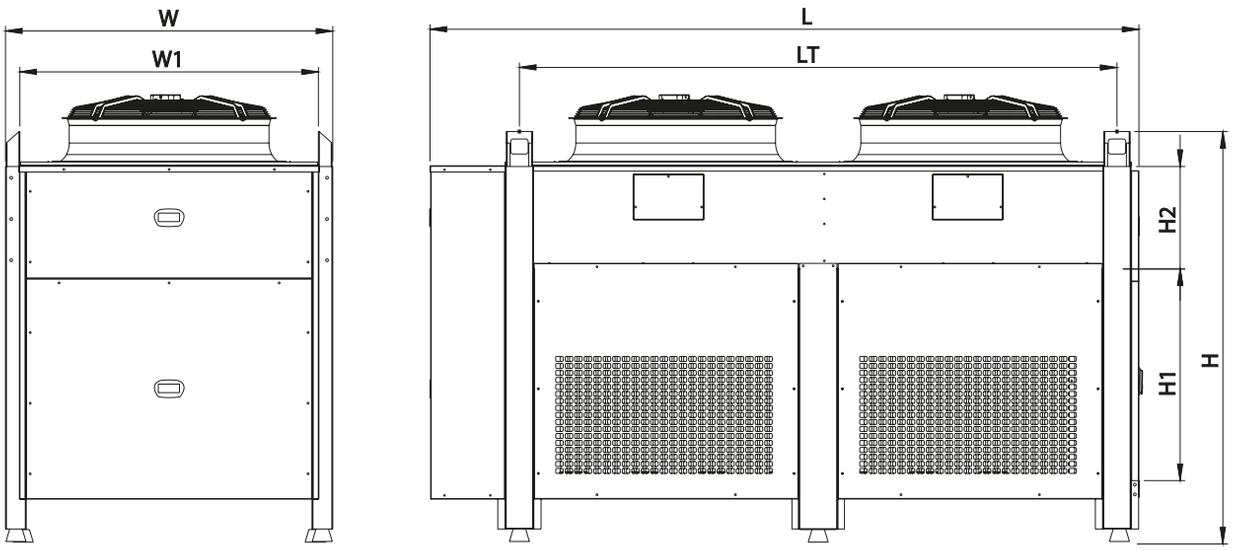
Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S **1/ 230V AC 50Hz 880 rpm**	**L** **1/ 230V AC 50Hz 620 rpm**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S** **Hava Debisi** Air Flow 880 rpm	**L** **Hava Debisi** Air Flow 620 rpm
	(m²)	**(dm³)**	**(Watt)**	**(Watt)**	**(n)**	**(Ømm)**	**(Watt)**	**(m3/h)**	**(m3/h)**
63KUK211 2,5	115,87	10,30	43.540	36.060	2	630	1220	17.985	13.369
63KUK212 2,5	154,26	13,20	51.930	42.000		630	1220	16.951	12.472
63KUK311 2,5	173,45	14,70	67.900	56.340	3	630	1830	26.938	20.000
63KUK312 2,5	231,39	19,80	77.980	63.080		630	1830	25.428	18.708
63KUK211 2,1	136,98	10,30	47.260	38.740	2	630	1220	17.623	13.046
63KUK212 2,1	182,64	13,20	54.970	44.140		630	1220	16.487	12.150
63KUK311 2,1	205,50	14,70	73.410	60.340	3	630	1830	26.396	19.515
63KUK312 2,1	274,00	19,80	82.550	66.270		630	1830	24.730	18.224

Bakır Boru / Copper Pipe : 3/8” — **Hatve** / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S **1/ 230V AC 50Hz 880 rpm**	**L** **1/ 230V AC 50Hz 670 rpm**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S** **Hava Debisi** Air Flow 880 rpm	**L** **Hava Debisi** Air Flow 670 rpm
	(m²)	**(dm³)**	**(Watt)**	**(Watt)**	**(n)**	**(Ømm)**	**(Watt)**	**(m3/h)**	**(m3/h)**
80KUK211 2,5	168,41	14,10	82.020	69.200	2	800	2860	39.338	29.259
80KUK212 2,5	224,83	19,40	95.170	78.250		800	2860	36.258	26.674
80KUK311 2,5	252,62	21,10	123.580	105.440	3	800	4290	58.975	43.890
80KUK312 2,5	337,25	29,10	144.790	120.000		800	4290	54.387	40.010
80KUK211 2,1	199,17	14,10	89.280	74.580	2	800	2860	38.241	28.285
80KUK212 2,1	265,85	19,40	101.460	82.660		800	2860	34.950	25.690
80KUK311 2,1	298,76	21,10	133.300	112.890	3	800	4290	57.362	42.427
80KUK312 2,1	398,78	29,10	153.400	126.220		800	4290	52.426	38.548



Model Model	**Boyutlar** / Dimensions							**Bağlantılar** / Connections			**Enerji Sınıfı** Energy Consumption
	L	H	W	LT	H1	H2	W1	**Adet** Qty	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(ad)**	**(mm)**	**(mm)**	
63KUK211 2,5	245	165	112	200	84	41	100	1	35	28	E
63KUK212 2,5	245	165	112	200	84	41	100	1	35	28	D
63KUK311 2,5	345	165	112	300	84	41	100	1	42	35	D
63KUK312 2,5	345	165	112	300	84	41	100	1	42	35	D
63KUK211 2,1	245	165	112	200	84	41	100	1	35	28	D
63KUK212 2,1	245	165	112	200	84	41	100	1	35	28	D
63KUK311 2,1	345	165	112	300	84	41	100	1	42	35	D
63KUK312 2,1	345	165	112	300	84	41	100	1	42	35	D

Model Model	**Boyutlar** / Dimensions							**Bağlantılar** / Connections			**Enerji Sınıfı** Energy Consumption
	L	H	W	LT	H1	H2	W1	**Adet** Qty	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(ad)**	**(mm)**	**(mm)**	
80KUK211 2,5	285	165	132	240	84	41	120	1	42	35	E
80KUK212 2,5	285	165	132	240	84	41	120	1	42	35	E
80KUK311 2,5	405	165	132	320	84	41	120	1	64	54	E
80KUK312 2,5	405	165	132	320	84	41	120	1	64	54	E
80KUK211 2,1	285	165	132	240	84	41	120	1	42	35	E
80KUK212 2,1	285	165	132	240	84	41	120	1	42	35	E
80KUK311 2,1	405	165	132	320	84	41	120	1	64	54	E
80KUK312 2,1	405	165	132	320	84	41	120	1	64	54	E

63-80 KUY Serisi
63-80 KUY Serie

Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

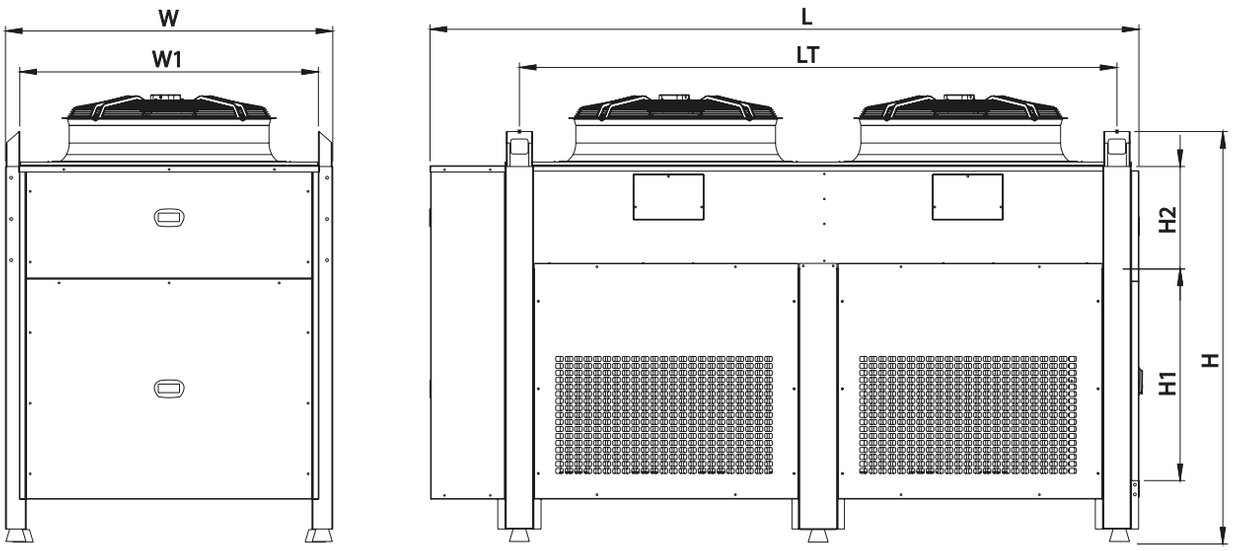
Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S **1/ 230V AC 50Hz 880 rpm**	**L** **1/ 230V AC 50Hz 620 rpm**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S** **Hava Debisi** Air Flow 880 rpm	**L** **Hava Debisi** Air Flow 620 rpm
	(m²)	**(dm³)**	**(Watt)**	**(Watt)**	**(n)**	**(Ømm)**	**(Watt)**	**(m3/h)**	**(m3/h)**
63KUY211 2,5	108,54	18,10	47.210	38.370	2	630	1220	17.055	12.580
63KUY212 2,5	144,51	23,50	52.480	41.770		630	1220	15.842	11.647
63KUY311 2,5	162,58	26,50	71.270	58.000	3	630	1830	25.582	18.870
63KUY312 2,5	217,25	36,60	79.710	63.440		630	1830	25.428	17.471
63KUY211 2,1	128,00	18,10	50.500	40.650	2	630	1220	16.616	12.221
63KUY212 2,1	170,46	23,50	54.970	43.350		630	1220	15.364	11.289
63KUY311 2,1	191,76	26,50	76.160	61.400	3	630	1830	24.942	18.332
63KUY312 2,1	256,17	36,60	83.340	65.750		630	1830	23.026	16.933

Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S **1/ 230V AC 50Hz 880 rpm**	**L** **1/ 230V AC 50Hz 670 rpm**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S** **Hava Debisi** Air Flow 880 rpm	**L** **Hava Debisi** Air Flow 670 rpm
	(m²)	**(dm³)**	**(Watt)**	**(Watt)**	**(n)**	**(Ømm)**	**(Watt)**	**(m3/h)**	**(m3/h)**
80KUY211 2,5	158,05	26,10	87.020	71.720	2	800	2860	36.553	26.928
80KUY212 2,5	210,74	37,40	99.450	80.270		800	2860	33.178	24.258
80KUY311 2,5	237,08	39,10	130.060	107.640	3	800	4290	54.830	40.392
80KUY312 2,5	316,70	53,70	147.020	118.320		800	4290	49.768	36.450
80KUY211 2,1	186,41	26,10	93.380	76.300	2	800	2860	35.245	25.911
80KUY212 2,1	248,55	37,40	104.360	83.400		800	2860	31.913	23.283
80KUY311 2,1	279,62	39,10	140.200	114.520	3	800	4290	52.869	38.866
80KUY312 2,1	373,40	53,70	154.750	123.060		800	4290	47.870	34.924



Model Model	**Boyutlar** / Dimensions								**Bağlantılar** / Connections			**Enerji Sınıfı** Energy Consumption
	L	H	W	LT	LC	H1	H2	W1	**Adet** Qty	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(ad)**	**(mm)**	**(mm)**	
63KUY211 2,5	245	160	112	100	--	84	41	100	1	35	28	D
63KUY212 2,5	245	160	112	100	--	84	41	100	1	35	28	D
63KUY311 2,5	345	160	112	100	--	84	41	100	1	42	35	D
63KUY312 2,5	345	160	112	100	--	84	41	100	1	42	35	D
63KUY211 2,1	245	160	112	100	--	84	41	100	1	35	28	D
63KUY212 2,1	245	160	112	100	--	84	41	100	1	35	28	D
63KUY311 2,1	345	160	112	100	--	84	41	100	1	42	35	D
63KUY312 2,1	345	160	112	100	--	84	41	100	1	42	35	D

Model Model	**Boyutlar** / Dimensions								**Bağlantılar** / Connections			**Enerji Sınıfı** Energy Consumption
	L	H	W	LT	LC	H1	H2	W1	**Adet** Qty	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(ad)**	**(mm)**	**(mm)**	
80KUY211 2,5	285	160	132	120	--	84	41	120	1	42	35	E
80KUY212 2,5	285	160	132	120	--	84	41	120	1	42	35	E
80KUY311 2,5	405	160	132	120	--	84	41	120	1	64	54	E
80KUY312 2,5	405	160	132	120	--	84	41	120	1	64	54	E
80KUY211 2,1	285	160	132	120	--	84	41	120	1	42	35	E
80KUY212 2,1	285	160	132	120	--	84	41	120	1	42	35	E
80KUY311 2,1	405	160	132	120	--	84	41	120	1	64	54	E
80KUY312 2,1	405	160	132	120	--	84	41	120	1	64	54	E

MONOBLOK Serisi
MONOBLOCK Serie

Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

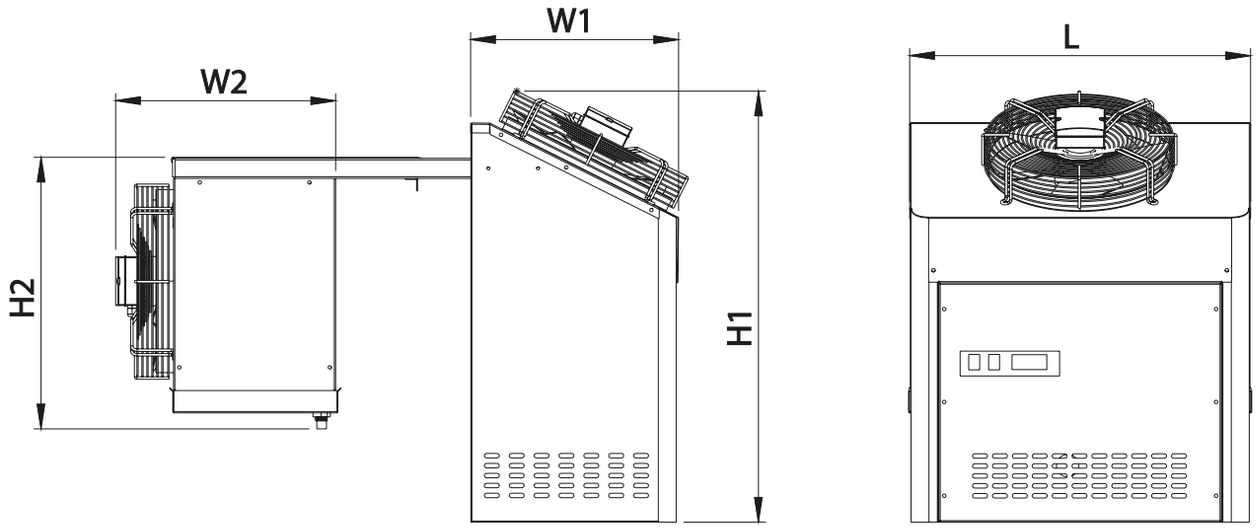
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8" - 1/2"

Hatve / Fin Spacing : 1,8 mm - 4 mm

Monoblok Modeli	Kompresör Modeli	Beygir Gücü (HP)	Soğutucu Akışkan	Kompresör Soğuma Gücü	Kompresör Motor Gücü	EVAPORATÖR					
				Evap. = -8°C / Kond.= +45°C		Kapasite (SC2)	Yüzey Alanı	Fan	Hava Debisi	Boru Hacmi	Giriş-Çıkış
MONO 3/4P	CAJ 9480 Z	3/4 HP	R404A	1.265 Watt	716 Watt	1272 Watt	4,39	1x300	1466	0,90	2x3/16-2x5/8
MONO 10P	CAJ 9510 Z	1 HP		1.584 Watt	874 Watt	1.861 Watt	5,85	1x300	1389	1,20	2x3/16-2x5/8
MONO 15P	CAJ 4519 Z	1,5 HP		2.947 Watt	1.649 Watt	2.819 Watt	9,54	1x350	2353	1,80	3x3/16-3x19
MONO 20P	TFH 4524 Z	2 HP		3.373 Watt	1.818 Watt	3.140 Watt	11,47	1X350	2229	2,20	4x3/16-4x22
MONO 30P	TFH 4540 Z	3 HP		5.661 Watt	3.008 Watt	5.745 Watt	19,20	2X350	4707	3,90	5x3/16-5x28
MONO 45P	TAG 4553 Z	4,5 HP		6.924 Watt	3.532 Watt	6.922 Watt	27,20	2X350	4309	4,60	7x3/16-7x28

Monoblok Modeli	Kompresör Modeli	Beygir Gücü (HP)	Soğutucu Akışkan	Kompresör Soğuma Gücü	Kompresör Motor Gücü	EVAPORATÖR					
				Evap. = -25°C / Kond.= +45°C		Kapasite (SC3)	Yüzey Alanı	Fan	Hava Debisi	Boru Hacmi	Giriş-Çıkış
MONO 10N	CAJ 2446 Z	1 HP	R404A	1.005 Watt	823 Watt	1.348 Watt	4,30	1X300	1494	1,40	1X1/2-1X1/2
MONO 15N	CAJ 2464 Z	1,5 HP		1.285 Watt	1.109 Watt	1.554 Watt	5,73	1X300	1422	1,80	2X1/4-2X19
MONO 20N	TFH 2480 Z	2 HP		1.865 Watt	1.585 Watt	2.392 Watt	11,14	1X300	1247	2,70	2X1/4-2X19
MONO 30N	TFH 2511 Z	3 HP		2.528 Watt	1.976 Watt	3.243 Watt	11,35	2X300	2845	3,30	3X1/4-3X22
MONO 50N	TAG 2516 Z	5 HP		3.697 Watt	2.825 Watt	4.391 Watt	19,38	2X300	2555	5,40	5X1/4-5X28



KONDENSER						MONOBLOK BOYUTLAR				
Kapasite (DT12)	**Yüzey Alanı**	**Fan**	**Hava Debisi**	**Boru hacmi**	**Giriş-Çıkış**	**L**	**H1**	**H2**	**W1**	**W2**
2334 Watt	5,68	1X300	1452	0,90	1x3/8-1x3/8	635	825	485	400	440
2.707 Watt	7,90	1X300	1351	1,20	2x5/8-2x1/2	635	825	485	400	440
4.550 Watt	10,72	1x350	2344	1,60	2x5/8-2x1/2	685	825	550	450	440
5.237 Watt	16,74	1x350	2060	2,00	3x19-3x5/8	685	825	550	450	440
9.121 Watt	22,92	2X350	4319	2,90	4x22-4x19	1140	825	550	450	440
10.100 Watt	30,56	2X350	3865	3,90	4x22-4x19	1140	825	550	450	440

KONDENSER						MONOBLOK BOYUTLAR				
Kapasite (DT12)	**Yüzey Alanı**	**Fan**	**Hava Debisi**	**Boru hacmi**	**Giriş-Çıkış**	**L**	**H1**	**H2**	**W1**	**W2**
2334 Watt	5,68	1X300	1452	0,90	1x3/8-1x3/8	635	825	500	400	440
2.707 Watt	7,90	1X300	1351	1,20	2x5/8-2x1/2	635	825	500	400	440
3.522 Watt	16,71	1X300	1122	2,10	2x5/8-2x1/2	635	825	500	400	500
5.755 Watt	18,00	2X300	2435	3,00	3x19-3x5/8	1040	825	500	400	440
6.500 Watt	30,08	2X300	2107	3,90	5X22-5X19	1040	825	500	400	440

NEW GENERATION COOLERS

Yeni Nesil Soğutucular

BUZÇELİK
THERMIC EQUIPMENTS INDUSTRY

ENDÜSTRİYEL TİP KONDENSERLER

Industrial Type Condensers

UK-UY
VUK-VUY
SERIES

BATARYA

• Ø3/8", Ø1/2" bakır borulu.
• V-tipi alüminyum lamel.
• Lamel araları 2,1-2,5 mm tasarlanmıştır.
• Giriş - çıkış kolektör malzemesi bakırdır.
• Standart ürünler için izin verilen en yüksek çalışma basıncı Ps=21 Bar.
• Şaşırtmalı boru dizilimi.
• Bataryalarda R404A, R407C, R407F, R507F, R22, Rl 34A, R449A, R290A, R41 OA soğutucu gazlarla çalışmaya uygun tasarım.
• Opsiyonel olarak 1,8mm ile 4mm aralığında farklı hatveler seçeneği.

Coil

• Ø3/8", Ø1/2" copper tube.
• 'V" type aluminum fins.
• The finned coils are designed with aluminum fins spaced at 2,1 or 2,5 mm, crimped onto copper tubes.
• Header inlet and outlet tube connections made of copper.
• Maximum operating pressure 21 bar for standard products.
• Staggered copper tubes.
• The coil circuits are designed for refrigerants R404A, R407F, R449A, R507C, R22, Rl 34A.
• Different fin spacing can be selected as an option for 1,8mm to 4mm.

KASETLEME

• Galvaniz çelik üzerine elektrostatik RAL 7035 boyalıdır.
• Galvanizli Çelik, Paslanmaz Çelik ve Alüminyum levha.
• Fan bölmeleri sac levhalar ile birbirinden ayrılmış ve duran fanların ters dönüş etkisi önlenmiştir.

Casing

• Electrostatic powder coated RAL 7035 galvanized steel.
• Galvanized Steel, Stainless Steel and Aluminum sheet
• Each fan chamber is separated by internal baffle plates to prevent induced wind milling of off-cycle fans

FAN

• Ø500-Ø630-Ø800 mm / 230V-50Hz-Monofase 800~ 1250d/d / 400V-50Hz-Trifaze 650~900d/d fanlar.
• Opsiyonel seçimler Buzçelik Teknik Uzmanı tarafından teyit edilmelidir.
• Standart veya düşük ses seviyeli bakım gerektirmeyen fan seçeneği.
• İsteğe bağlı AC ya da EC fan motor seçenekleri.
• Koruma sınıfı IP54, fan konstrüksiyonu izolasyon malzeme sınıfı F.
• Opsiyonel olarak seçilebilir fan aksesuar çeşitleri (AxiTop Difüzör, FlowGrid gürültü düşürücüler vb.)
• Çalışma aralığı -40°C/+50°C'dir.

Fan

• Ø500-Ø630-Ø800 mm / 230V-50Hz-Monofase 800~ 1250d/d / 400V-50Hz-Trifaze 650~900d/d fans
• Selections should be confirmed by your Buzçelik Technical Specialist
• Standard or low noise level are available.
• Different kinds of motors available as optional. (EC or AC)
• Motor protection IP54 insulation class F
• Different kinds of accessories available as optional. (AxiTop Diffuser, FlowGrid ete.)
• Working conditions -40°C/+50°C.

KAPASİTE

Nominal kapasiteler ΔT= 15°C koşulunda R404A gaza göre Eurovent EN 328 standartları dikkate alınarak verilmiştir.

Capacity

The nominal capacities calculated according to Eurovent EN328 standards that refer to ΔT=I 5°C condition and are valid for R404A.

SEÇENEKLER

• Farklı dış kabin rengi,
• Farklı boru et kalınlığı ve hatve,
• Monofaze 220V 1 ~ 50Hz, Trifaze 400V 3~ 50Hz fan seçeneği.
• Katalogda belirtilmeyen özel ürünler için lütfen satış departmanı ile irtibata geçin.

Options

• Different casing color.
• Other tube wall thicknesses and fin spacing on request.
• Mono phase 220V 1 ~ 50Hz fan or three phase 400V 3~ 50Hz fan.
• Please keep in touch with our sales department about your special needs that are not mentioned in the catalogue.

NOT

Montaj, Bakım - Taşıma ve Kaldırma detayları için kullanım Kılavuzuna başvurunuz.

Note

Please read "Installation, Operation and Maintenance Instructions" for mounting and maintenance.

AKSESUARLAR

• Paslanmaz çelik kabin,
• Epoxy boya,

Accessories

• Casing made of stainless steel.
• Epoxy resin coated aluminum fins.

Options As Listed Are Available On Request For Assistance Please Contact Buzçelik Branch
Talep Üzerine Listelenen Özelliklerin Üretimi Mümkündür. Yardım İçin Lütfen Buzçelik Satış Birimi İle İletişime Geçiniz.

ADLANDIRMA
CLASSIFICATION

80 U K 111 2,1

Fan Çapı Fan Diameter	Tip Type	Geometri Geometry	Fan Dizisi Fan Array	Ürün Numarası Product Number	Hatve Aralığı Fin Space
Ø ... cm	U : Endüstriyel Tip U : Industrial Type	K : 3228-3/8” Y : 3228-1 /2”	Sütun x Satır Column x Row		

KAPASİTE STANDARTLARI
CAPACITY STANDARD

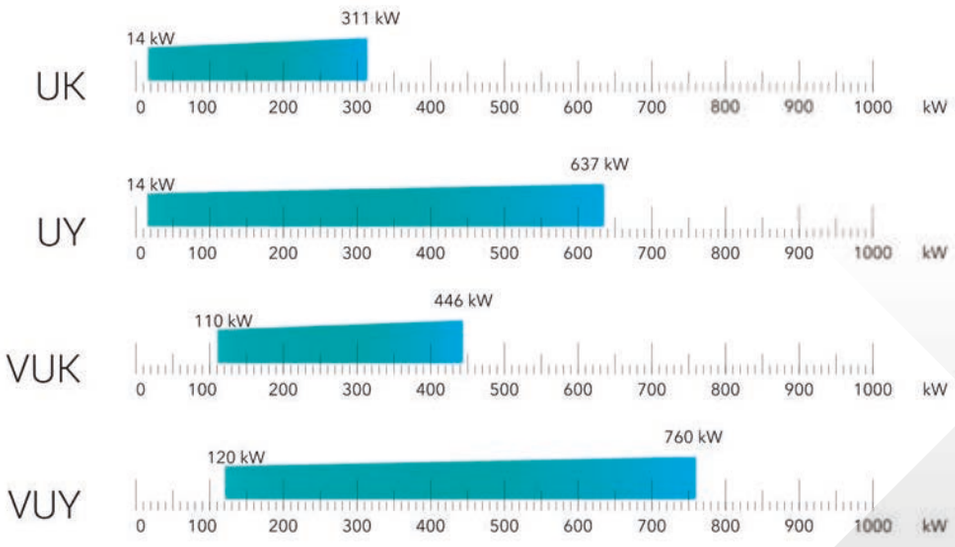
Akışkan	:	R404A
Hava Giriş Sıcaklığı (Tai)	:	25°C
Kondenzasyon Sıcaklığı (Tc)	:	40°C
ΔT = Tc-Tai	:	40°C - 25°C = 15°C
Rakım	:	0m

KONDENSER SEÇİMİ
Nominal condenser kapasitesi aşağıdaki formüller vasıtası ile hesaplanabilir.
Formül 1
Qnk = [(Q+N) x f2 x f3 x f5) / (f4 x f6)
Qnk: Nominal kondenser kapasitesi
Q: Kompresörün soğutma kapasitesi
N : Kompresör motorunun çektiği güç
Q ve N kompresör kataloglarından bulunabilir.
Detaylı bilginin olmadığı durumlarda Formül 2 uygulanır.
Formül 2
Qnk=[Q x f1 x f2 x f3 x f5] / (f4 x f6)

Refrigerant	:	R404A
Air inlet Temperature (Tai)	:	25°C
Condensation Temperation (Tc)	:	40°C
ΔT=Tc-Tai	:	40°C - 25°C = 15°C
Altitude	:	0m

CONDENSER SELECTION
Nominal condenser capacity can be calculated by using formulas below.
Formul 1
Qnk = [(Q+N) x f2 x f3 x f5) / (f4 x f6)
Qnk: Nominal condenser capacity
Q: Refrigerating capacity of compressor
N : Absorbed compressor power
These data can be obtained from the compressor catalogues. If absorbed compressor power is unknown, please use Formula 2.
Formul 2
Qnk=[Q x f1 x f2 x f3 x f5] / (f4 x f6)

ÜRÜN KAPASİTE ARALIĞI
CAPACITY RANGE



(f_1) FAKTÖRÜ/ (f_1) FACTOR

Açık Kompresör/ Open Compressors							
Evaporasyon Sıcaklığı Evaporation Temperature °C	Kondenzasyon Sıcaklığı Condensation Temperature °C						
	30	35	40	45	50	55	60
-35	1,36	1,41	1,44	-	-	-	-
-30	1,31	1,36	1,40	1,44	-	-	-
-25	1,27	1,32	1,36	1,41	1,45	-	-
-20	1,24	1,28	1,31	1,35	1,39	1,44	-
-15	1,20	1,24	1,27	1,31	1,35	1,39	1,44
-10	1,18	1,21	1,24	1,27	1,31	1,35	1,40
-5	1,15	1,18	1,21	1,24	1,27	1,31	1,36
o	1,13	1,15	1,18	1,21	1,24	1,27	1,31
5	1,10	1,13	1,15	1,18	1,21	1,24	1,28
10	1,08	1,11	1,13	1,15	1,17	1,21	1,24

Hermetik ve Yarı-Hermetik Kompresör/ Hermetic and Semi-Hermetic Compressors							
Evaporasyon Sıcaklığı Evaporation Temperature °C	Kondenzasyon Sıcaklığı Condensation Temperature °C						
	30	35	40	45	50	55	60
-40	1,64	1,69	1,76	1,86	2,03	-	-
-35	1,56	1,61	1,66	1,73	1,83	-	-
-30	1,48	1,53	1,57	1,62	1,69	-	-
-25	1,42	1,46	1,5	1,54	1,6	1,68	-
-20	1,37	1,4	1,44	1,48	1,53	1,6	-
-15	1,32	1,35	1,38	1,43	1,48	1,53	1,58
-10	1,28	1,31	1,34	1,37	1,42	1,46	1,52
-5	1,23	1,26	1,29	1,33	1,37	1,41	1,45
o	1,2	1,22	1,25	1,28	1,32	1,36	1,39
5	1,16	1,19	1,21	1,24	1,28	1,31	1,34
10	1,13	1,15	1,18	1,21	1,23	1,26	1,29

(f_2) FAKTÖRÜ/ (f_2) Factor = 15/T1

(f_3) FAKTÖRÜ/ (f_3) FACTOR

Hava Giriş Sıcaklığı Faktörü / Air inlet Temperature Factor								
T(°C)	15	20	25	30	35	40	45	50
f_3	0,97	0,98	1	1,02	1,04	1,06	1,08	1,1

(f_4) FAKTÖRÜ/ (f_4) FACTOR

Soğutucu Akışkan Faktörü / Refrigerant Factor					
R	R134A	R22	R404A/R507	R407A	R407C
f_4	0,93	0,96	1	0,83	0,87

(f_5) FAKTÖRÜ/ (f_5) FACTOR

Rakım Faktörü / Altitude Factor							
H(m)	0	500	1000	1500	2000	2500	3000
f_5	1	1,04	1,07	1,11	1,16	1,21	1,25

(f_6) FAKTÖRÜ/ (f_6) FACTOR

Lamel Malzemesi Fin Material	Alüminyum Aluminum	Kaplı Alüminyum Coated Aluminum	Bakır Copper
f_6	1	0,97	1,03

Tablo-4 Lamel Malzemesi için Düzeltme Faktörleri Table-4 Fin Material Correction Factors			
Lamel Malzemesi Fin Material	Alüminyum Aluminum	Kaplı Alüminyum Coated Aluminum	Bakır Copper
K_3	1	0,97	1,03

KONDENSER SEÇİMİ
Nominal kondenser kapasitesi aşağıdaki formüller vasıtası ile hesaplanabilir.

Formül 1
Qnk = [(Q+N) x f2 x f3 x f5) / (f4 x f6)
Qnk: Nominal kondenser kapasitesi
Q: Kompresörün soğutma kapasitesi
N : Kompresör motorunun çektiği güç
Q ve N kompresör kataloglarından bulunabilir.
Detaylı bilginin olmadığı durumlarda Formül 2 uygulanır.
Formül 2
Qnk=[Q x f1 x f2 x f3 x f5] / (f4 x f6)

CONDENSER SELECTION
Nominal condenser capacity can be calculated by using formulas below.

Formul 1
Qnk = [(Q+N) x f2 x f3 x f5) / (f4 x f6)
Qnk: Nominal condenser capacity
Q: Refrigerating capacity of compressor
N : Absorbed compressor power
These data can be obtained from the compressor catalogues. If absorbed compressor power is unknown, please use Formula 2.
Formul 2
Qnk=[Q x f1 x f2 x f3 x f5] / (f4 x f6)

ÖRNEK SEÇİM / SELECTION EXAMPLE	
Kompresörün soğutma kapasitesi / Refrigerating Capacity of Compressor	55.800.Watt/h
Kompresör Motorunun Çektiği Güç/ Absorbed Compressor Power	17.200.Watt!h
Kompresör Tipi/ Compressor type	Semi-Hermetic
Evaporasyon Sıcaklığı/ Evaporation Temperature	-10°C
Hava Giriş Sıcaklığı/ Air inlet Temperature	+30°C
Kondenzasyon Sıcaklığı/ Condensation Temperature	+40°C
Rakım/ Altitude	1000m
Soğutucu Akışkan/ Refrigerant	R404A
Lamel Malzemesi/ Fin Material	Aluminum
f2=1,5 /f3= 1,02 /f4=1 /f5=1,07 /f6=1	119.500.Wat t/h
Seçilen Kondenser / Selected Condenser	50UK322 2,5 (121 Kw)

50 UK Serisi
50 UK Serie

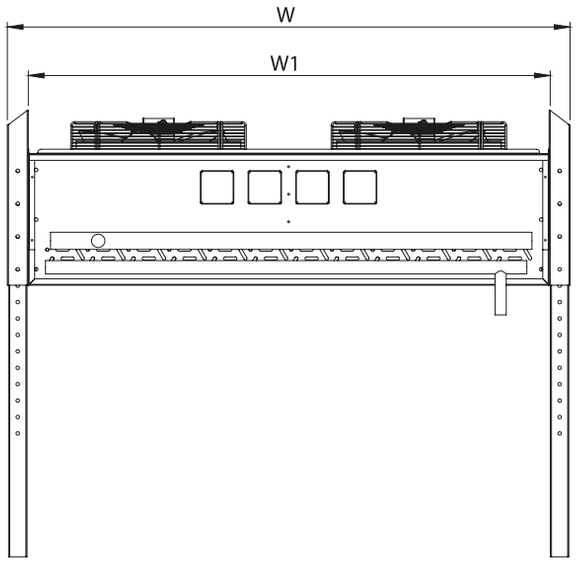
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

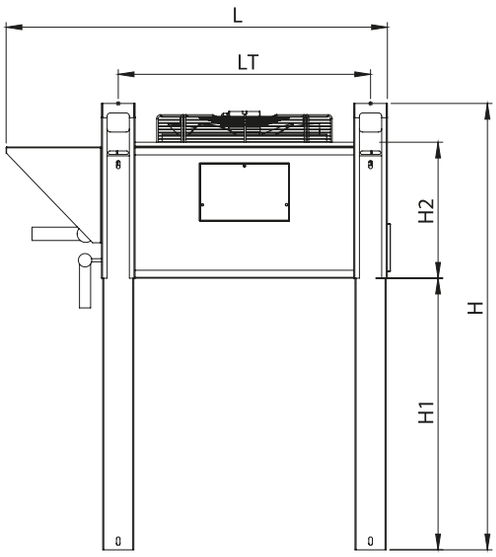
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8"

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S Ø500mm 1/ 230V AC 50Hz 1400 rpm"	**L Ø500mm 1/ 230V AC 50Hz 900 rpm"**	**Adet** Qty	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow 1400 rpm	**L Hava Debisi** Air Flow 900 rpm
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)	(m³/h)
50UK111 2,5	39,30	3,50	17.000	14.000	1	500	590	7.580	5.470
50UK112 2,5	52,41	4,70	20.000	16.000		500	590	7.190	5.170
50UK111 2,1	46,46	3,50	18.000	15.000		500	590	7.440	5.370
50UK112 2,1	61,95	4,70	21.000	17.000		500	590	7.020	5.030
50UK211 2,5	78,60	7,00	34.000	28.000	2	500	1180	15.160	10.950
50UK121 2,5	78,60	7,00	34.000	28.000		500	1180	15.160	10.950
50UK212 2,5	104,82	9,40	40.000	32.000		500	1180	14.390	10.350
50UK122 2,5	104,82	9,40	40.000	32.000		500	1180	14.390	10.350
50UK211 2,1	92,92	7,00	37.000	30.000		500	1180	14.880	10.740
50UK121 2,1	92,92	7,00	37.000	30.000		500	1180	14.880	10.740
50UK212 2,1	123,90	9,40	43.000	34.000		500	1180	14.040	10.070
50UK122 2,1	123,90	9,40	43.000	34.000		500	1180	14.040	10.070
50UK311 2,5	117,90	10,50	51.000	42.000	3	500	1770	22.740	16.420
50UK312 2,5	157,23	14,10	60.000	49.000		500	1770	21.580	15.520
50UK311 2,1	139,38	10,50	56.000	45.000		500	1770	22.320	16.110
50UK312 2,1	185,85	14,10	64.000	51.000		500	1770	21.060	15.110
50UK411 2,5	157,20	14,00	68.000	56.000	4	500	2360	30.320	21.900
50UK412 2,5	209,64	18,80	81.000	65.000		500	2360	28.780	20.700
50UK221 2,5	157,20	14,00	68.000	56.000		500	2360	30.320	21.900
50UK222 2,5	209,64	18,80	81.000	65.000		500	2360	28.780	20.700
50UK411 2,1	185,84	14,00	74.000	61.000		500	2360	29.760	21.480
50UK221 2,1	185,84	14,00	74.000	61.000		500	2360	29.760	21.480
50UK412 2,1	247,80	18,80	86.000	69.000		500	2360	28.080	20.140
50UK222 2,1	247,80	18,80	86.000	69.000		500	2360	28.080	20.140
50UK321 2,5	235,80	21,00	103.000	84.000	6	500	3540	45.480	32.850
50UK322 2,5	314,46	28,20	121.000	98.000		500	3540	43.170	31.050
50UK321 2,1	278,76	21,00	112.000	90.000		500	3540	44.650	32.230
50UK322 2,1	371,70	28,20	128.000	102.000		500	3540	42.120	30.220
50UK421 2,5	314,40	28,00	137.000	112.000	8	500	4720	60.640	43.800
50UK422 2,5	419,28	37,60	162.000	131.000		500	4720	57.560	41.400
50UK421 2,1	371,68	28,00	148.000	122.000		500	4720	59.530	42.970
50UK422 2,1	495,60	37,60	172.000	138.000		500	4720	56.160	40.290





Model Model	**Boyutlar** / Dimensions							**Bağlantılar** / Connections			**Enerji Sınıfı** Energy Consumption
	L	H	W	LT	H1	H2	W1	**Adet** Qty	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(ad)**	**(mm)**	**(mm)**	
50UK111 2,5	120	141	101	80	90	43	88	1	22	19	E
50UK112 2,5	120	141	101	80	90	43	88	1	22	19	E
50UK111 2,1	120	141	101	80	90	43	88	1	22	19	E
50UK112 2,1	120	141	101	80	90	43	88	1	22	19	E
50UK211 2,5	200	141	101	160	90	43	88	1	35	28	E
50UK121 2,5	120	141	178	80	90	43	165	1	35	28	E
50UK212 2,5	200	141	101	160	90	43	88	1	35	28	E
50UK122 2,5	120	141	178	80	90	43	165	1	35	28	E
50UK211 2,1	200	141	101	160	90	43	88	1	35	28	E
50UK121 2,1	120	141	178	80	90	43	165	1	35	28	E
50UK212 2,1	200	141	101	160	90	43	88	1	35	28	E
50UK122 2,1	120	141	178	80	90	43	165	1	35	28	E
50UK311 2,5	280	141	101	80	90	43	88	1	42	35	E
50UK312 2,5	280	141	101	80	90	43	88	1	42	35	E
50UK311 2,1	280	141	101	80	90	43	88	1	42	35	E
50UK312 2,1	280	141	101	80	90	43	88	1	42	35	E
50UK411 2,5	360	141	101	80	90	43	88	1	42	35	E
50UK412 2,5	360	141	101	80	90	43	88	1	42	35	E
50UK221 2,5	200	141	178	160	90	43	165	1	42	35	E
50UK222 2,5	200	141	178	160	90	43	165	1	42	35	E
50UK411 2,1	360	141	101	80	90	43	88	1	42	35	E
50UK221 2,1	200	141	178	160	90	43	165	1	42	35	E
50UK412 2,1	360	141	101	80	90	43	88	1	42	35	E
50UK222 2,1	200	141	178	160	90	43	165	1	42	35	E
50UK321 2,5	280	141	178	80	90	43	165	2	54	42	E
50UK322 2,5	280	141	178	80	90	43	165	2	54	42	E
50UK321 2,1	280	141	178	80	90	43	165	2	54	42	E
50UK322 2,1	280	141	178	80	90	43	165	2	54	42	E
50UK421 2,5	360	141	178	80	90	43	165	2	66	54	E
50UK422 2,5	360	141	178	80	90	43	165	2	66	54	E
50UK421 2,1	360	141	178	80	90	43	165	2	66	54	E
50UK422 2,1	360	141	178	80	90	43	165	2	66	54	E

63 UK Serisi
63 UK Serie

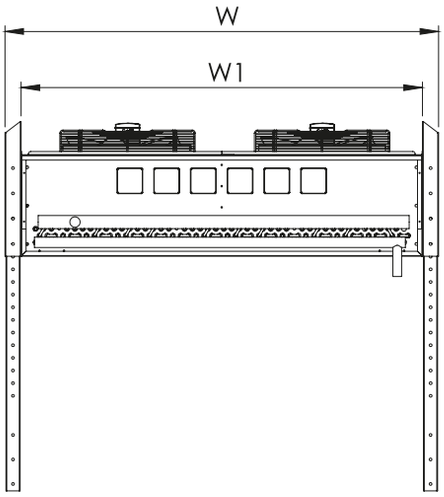
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

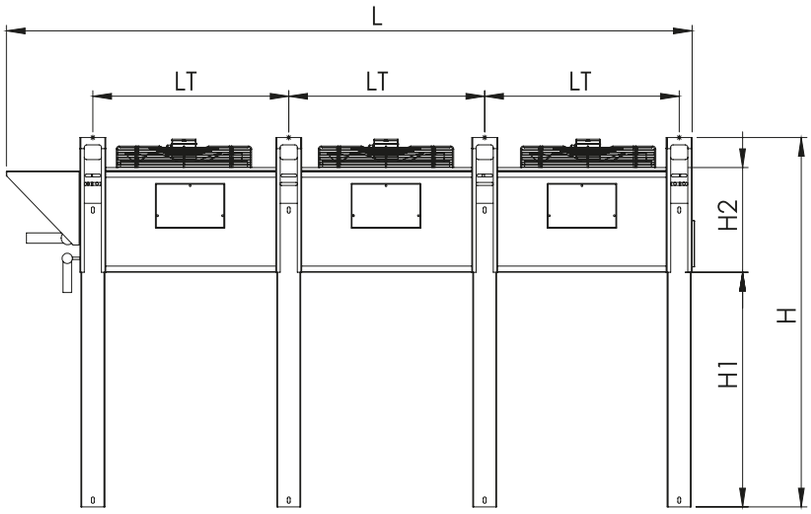
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8"

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

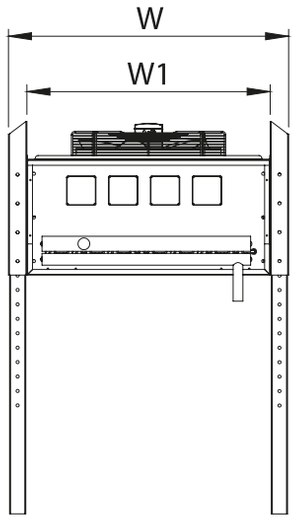
Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S **Ø630mm** **1/230V AC 50Hz** **880 rpm"**	**L** **Ø630mm** **3/ 400V AC 50Hz** **620 rpm"**	**Adet** Qty	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S** **Hava Debisi** Air Flow 880 rpm	**L** **Hava Debisi** Air Flow 620 rpm
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)	(m³/h)
63UK111 2,5	57,32	5,10	22.000	18.000	1	630	610	9.170	6.820
63UK112 2,5	76,42	6,90	26.000	21.000		630	610	8.680	6.410
63UK111 2,1	67,76	5,10	24.000	20.000		630	610	9.000	6.680
63UK112 2,1	90,34	6,90	27.000	22.000		630	610	8.240	6.230
63UK211 2,5	114,64	10,20	45.000	37.000	2	630	1220	18.340	13.650
63UK121 2,5	114,64	10,20	45.000	37.000		630	1220	18.340	13.650
63UK212 2,5	152,84	13,80	52.000	42.000		630	1220	17.360	12.830
63UK122 2,5	152,84	13,80	52.000	42.000		630	1220	17.360	12.830
63UK211 2,1	135,52	10,20	49.000	40.000		630	1220	18.010	13.360
63UK121 2,1	135,52	10,20	49.000	40.000		630	1220	18.010	13.360
63UK212 2,1	180,68	13,80	55.000	45.000		630	1220	16.920	12.470
63UK122 2,1	180,68	13,80	55.000	45.000		630	1220	16.920	12.470
63UK311 2,5	171,96	15,30	68.000	56.000	3	630	1830	27.510	20.480
63UK312 2,5	229,26	20,70	79.000	64.000		630	1830	26.040	19.240
63UK311 2,1	203,28	15,30	74.000	61.000		630	1830	27.010	20.050
63UK312 2,1	271,02	20,70	83.000	67.000		630	1830	25.380	18.700
63UK411 2,5	229,28	20,40	91.000	75.000	4	630	2440	36.690	27.310
63UK221 2,5	229,28	20,40	91.000	75.000		630	2440	36.690	27.310
63UK411 2,1	271,04	20,40	98.000	81.000		630	2440	36.020	26.730
63UK221 2,1	271,04	20,40	98.000	81.000		630	2440	36.020	26.730
63UK412 2,5	305,68	27,60	105.000	85.000		630	2440	34.720	25.660
63UK222 2,5	305,68	27,60	105.000	85.000		630	2440	34.720	25.660
63UK412 2,1	361,36	27,60	111.000	90.000		630	2440	33.850	24.940
63UK222 2,1	361,36	27,60	111.000	90.000		630	2440	33.850	24.940
63UK321 2,5	343,92	30,60	136.000	113.000	6	630	3660	55.030	40.960
63UK321 2,1	406,56	30,60	148.000	122.000		630	3660	54.030	40.100
63UK322 2,5	458,52	41,40	158.000	128.000		630	3660	52.090	38.490
63UK322 2,1	542,04	41,40	167.000	135.000		630	3660	50.770	37.410
63UK421 2,5	458,56	40,80	182.000	151.000	8	630	4880	73.380	54.620
63UK421 2,1	542,08	40,80	197.000	163.000		630	4880	72.040	53.470
63UK422 2,5	611,36	55,20	210.000	171.000		630	4880	69.450	51.320
63UK422 2,1	722,72	55,20	222.000	180.000		630	4880	67.700	49.880





Model Model	**Boyutlar** / Dimensions							**Bağlantılar** / Connections			**Enerji Sınıfı** Energy Consumption
	L	H	W	LT	H1	H2	W1	**Adet** Qty	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(ad)**	**(mm)**	**(mm)**	
63UK111 2,5	140	141	114	100	85	43	101	1	22	19	E
63UK112 2,5	140	141	114	100	85	43	101	1	28	22	D
63UK111 2,1	140	141	114	100	85	43	101	1	22	19	D
63UK112 2,1	140	141	114	100	85	43	101	1	28	22	D
63UK211 2,5	240	141	114	200	85	43	101	1	35	28	E
63UK121 2,5	140	141	203	100	85	43	190	1	35	28	E
63UK212 2,5	240	141	114	200	85	43	101	1	35	28	D
63UK122 2,5	140	141	203	100	85	43	190	1	35	28	D
63UK211 2,1	240	141	114	200	85	43	101	1	35	28	D
63UK121 2,1	140	141	203	100	85	43	190	1	35	28	D
63UK212 2,1	240	141	114	200	85	43	101	1	35	28	D
63UK122 2,1	140	141	203	100	85	43	190	1	35	28	D
63UK311 2,5	340	141	114	100	85	43	101	1	42	35	D
63UK312 2,5	340	141	114	100	85	43	101	1	42	35	D
63UK311 2,1	340	141	114	100	85	43	101	1	42	35	D
63UK312 2,1	340	141	114	100	85	43	101	1	42	35	D
63UK411 2,5	440	141	114	100	85	43	101	1	54	42	D
63UK221 2,5	240	141	203	200	85	43	190	1	54	42	D
63UK411 2,1	440	141	114	100	85	43	101	1	54	42	D
63UK221 2,1	240	141	203	200	85	43	190	1	54	42	D
63UK412 2,5	440	141	114	100	85	43	101	1	54	42	D
63UK222 2,5	240	141	203	200	85	43	190	1	54	42	D
63UK412 2,1	440	141	114	100	85	43	101	1	54	42	D
63UK222 2,1	240	141	203	200	85	43	190	1	54	42	D
63UK321 2,5	340	141	203	100	85	43	190	2	66	54	D
63UK321 2,1	340	141	203	100	85	43	190	2	66	54	D
63UK322 2,5	340	141	203	100	85	43	190	2	66	54	D
63UK322 2,1	340	141	203	100	85	43	190	2	66	54	D
63UK421 2,5	440	141	203	100	85	43	190	2	66	54	D
63UK421 2,1	440	141	203	100	85	43	190	2	66	54	D
63UK422 2,5	440	141	203	100	85	43	190	2	66	54	D
63UK422 2,1	440	141	203	100	85	43	190	2	66	54	D

80 UK Serisi
80 UK Serie



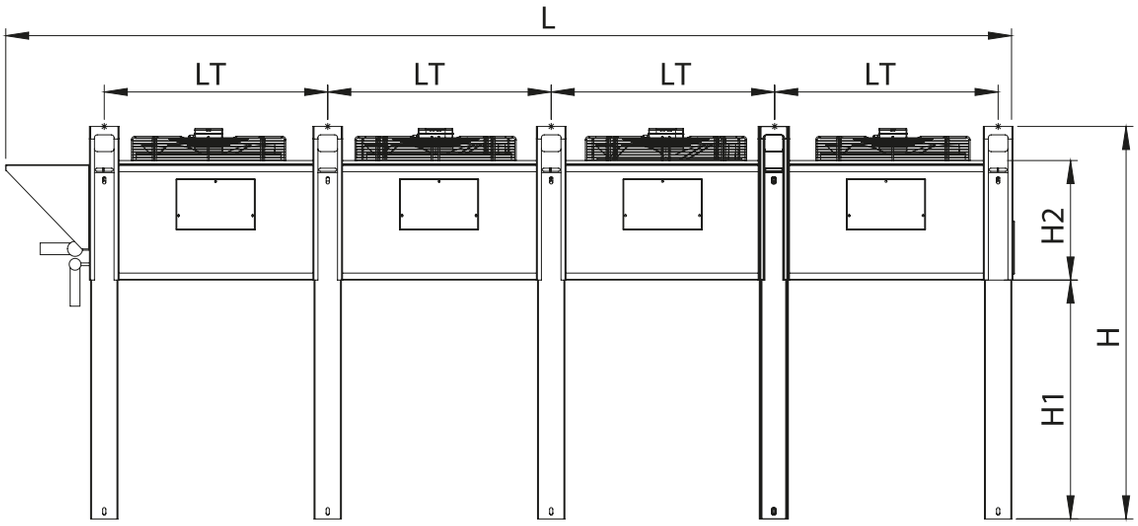
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S Ø800mm 3/ 400V AC 50Hz 880 rpm"	**L Ø800mm 3/ 400V AC 50Hz 670 rpm"**	**Adet** Qty	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow 880 rpm	**L Hava Debisi** Air Flow 670 rpm
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)	(m³/h)
80UK111 2,5	83,52	7,50	40.000	35.000	1	800	1430	19.980	15.330
80UK112 2,5	111,36	10,00	48.000	41.000		800	1430	18.460	14.250
80UK111 2,1	98,73	7,50	44.000	38.000		800	1430	19.450	14.950
80UK112 2,1	131,64	10,00	51.000	43.000		800	1430	17.850	13.810
80UK211 2,5	167,04	15,00	81.000	70.000	2	800	2860	39.970	30.670
80UK121 2,5	167,04	15,00	81.000	70.000		800	2860	39.970	30.670
80UK212 2,5	222,72	20,00	97.000	82.000		800	2860	36.930	28.500
80UK122 2,5	222,72	20,00	97.000	82.000		800	2860	36.930	28.500
80UK211 2,1	197,46	15,00	89.000	76.000		800	2860	38.910	29.910
80UK121 2,1	197,46	15,00	89.000	76.000		800	2860	38.910	29.910
80UK212 2,1	263,28	20,00	103.000	87.000		800	2860	35.710	27.620
80UK122 2,1	263,28	20,00	103.000	87.000		800	2860	35.710	27.620
80UK311 2,5	250,56	22,50	122.000	105.000	3	800	4290	59.950	46.010
80UK312 2,5	334,08	30,00	146.000	124.000		800	4290	55.400	42.750
80UK311 2,1	296,19	22,50	134.000	114.000		800	4290	58.370	44.860
80UK312 2,1	394,92	30,00	155.000	131.000		800	4290	53.560	41.430
80UK221 2,5	334,08	30,00	163.000	140.000	4	800	5720	79.940	61.350
80UK222 2,5	445,44	40,00	194.000	165.000		800	5720	73.860	57.000
80UK221 2,1	394,92	30,00	178.000	152.000		800	5720	77.830	59.820
80UK222 2,1	526,56	40,00	207.000	175.000		800	5720	71.420	55.240
80UK321 2,5	501,12	45,00	245.000	211.000	6	800	8580	119.910	92.020
80UK322 2,5	668,16	60,00	292.000	248.000		800	8580	110.800	85.500
80UK321 2,1	592,38	45,00	268.000	229.000		800	8580	116.740	89.730
80UK322 2,1	789,84	60,00	311.000	263.000		800	8580	107.130	82.860



Model Model	**Boyutlar** / Dimensions							**Bağlantılar** / Connections			**Enerji Sınıfı** Energy Consumption
	L	H	W	LT	H1	H2	W1	**Adet** Qty	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(ad)**	**(mm)**	**(mm)**	
80UK111 2,5	160	141	133	120	85	43	120	1	35	28	E
80UK112 2,5	160	141	133	120	85	43	120	1	35	28	E
80UK111 2,1	160	141	133	120	85	43	120	1	35	28	E
80UK112 2,1	160	141	133	120	85	43	120	1	35	28	E
80UK211 2,5	280	141	133	240	85	43	120	1	42	35	E
80UK121 2,5	160	141	242	120	85	43	229	1	35	28	E
80UK212 2,5	280	141	133	240	85	43	120	1	42	35	E
80UK122 2,5	160	141	242	120	85	43	229	1	35	28	E
80UK211 2,1	280	141	133	240	85	43	120	1	42	35	E
80UK121 2,1	160	141	242	120	85	43	229	1	35	28	E
80UK212 2,1	280	141	133	240	85	43	120	1	42	35	E
80UK122 2,1	160	141	242	120	85	43	229	1	35	28	E
80UK311 2,5	400	141	133	120	85	43	120	1	64	54	E
80UK312 2,5	400	141	133	120	85	43	120	1	64	54	E
80UK311 2,1	400	141	133	120	85	43	120	1	64	54	E
80UK312 2,1	400	141	133	120	85	43	120	1	64	54	E
80UK221 2,5	280	141	242	240	85	43	229	1	64	54	E
80UK222 2,5	280	141	242	240	85	43	229	1	64	54	E
80UK221 2,1	280	141	242	240	85	43	229	1	64	54	E
80UK222 2,1	280	141	242	240	85	43	229	1	64	54	E
80UK321 2,5	400	141	242	120	85	43	229	2	80	64	E
80UK322 2,5	400	141	242	120	85	43	229	2	80	64	E
80UK321 2,1	400	141	242	120	85	43	229	2	80	64	E
80UK322 2,1	400	141	242	120	85	43	229	2	80	64	E

50 UY Serisi
50 UY Serie

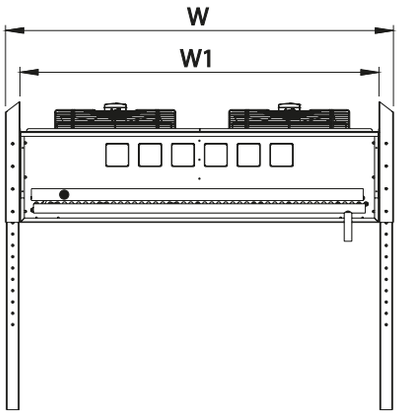
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

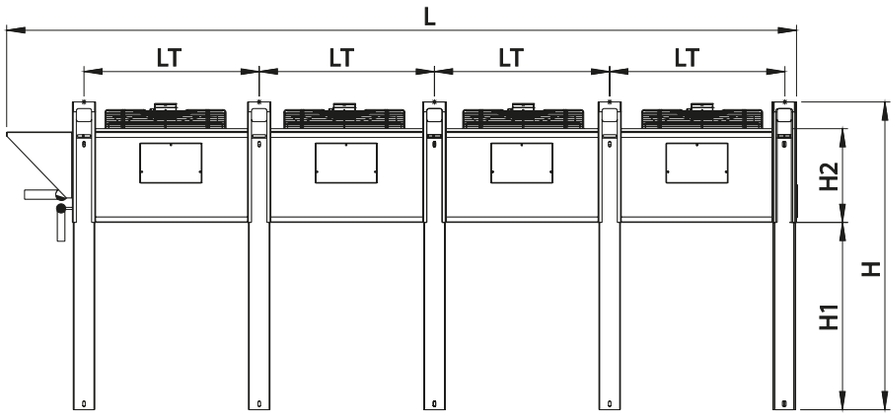
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S Ø500mm 1/ 230V AC 50Hz 1400 rpm"	**L Ø500mm 1/ 230V AC 50Hz 900 rpm"**	**Adet** Qty	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow 1400 rpm	**L Hava Debisi** Air Flow 900 rpm
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)	(m³/h)
50UY111 2,5	37,75	6,50	18.000	14.000	1	500	590	7.210	5.180
50UY112 2,5	50,33	8,70	21.000	16.000		500	590	6.700	4.810
50UY111 2,1	44,50	6,50	19.000	15.000		500	590	7.040	5.050
50UY112 2,1	59,33	8,70	22.000	17.000		500	590	6.480	4.660
50UY211 2,5	75,50	13,00	36.000	29.000	2	500	1180	14.430	10.370
50UY121 2,5	75,50	13,00	36.000	29.000		500	1180	14.430	10.370
50UY212 2,5	100,66	17,40	42.000	33.000		500	1180	13.400	9.630
50UY122 2,5	100,66	17,40	42.000	33.000		500	1180	13.400	9.630
50UY211 2,1	89,00	13,00	39.000	31.000		500	1180	14.080	10.110
50UY121 2,1	89,00	13,00	39.000	31.000		500	1180	14.080	10.110
50UY212 2,1	118,66	17,40	44.000	34.000		500	1180	12.970	9.330
50UY122 2,1	118,66	17,40	44.000	34.000		500	1180	12.970	9.330
50UY311 2,5	113,25	19,50	55.000	44.000	3	500	1770	21.640	15.560
50UY312 2,5	150,99	26,10	63.000	50.000		500	1770	20.100	14.450
50UY311 2,1	133,50	19,50	59.000	47.000		500	1770	21.120	15.160
50UY312 2,1	177,99	26,10	66.000	52.000		500	1770	19.460	14.000
50UY411 2,5	151,00	26,00	73.000	59.000	4	500	2360	28.860	20.740
50UY221 2,5	151,00	26,00	73.000	59.000		500	2360	28.860	20.740
50UY412 2,5	201,32	34,80	84.000	67.000		500	2360	26.800	19.270
50UY222 2,5	201,32	34,80	84.000	67.000		500	2360	26.800	19.270
50UY411 2,1	178,00	26,00	79.000	63.000		500	2360	28.160	20.220
50UY221 2,1	178,00	26,00	79.000	63.000		500	2360	28.160	20.220
50UY412 2,1	237,32	34,80	88.000	69.000		500	2360	25.950	18.670
50UY222 2,1	237,32	34,80	88.000	69.000		500	2360	25.950	18.670
50UY321 2,5	226,50	39,00	110.000	89.000	6	500	3540	43.290	31.120
50UY322 2,5	301,98	52,20	126.000	100.000		500	3540	40.200	28.900
50UY321 2,1	267,00	39,00	119.000	95.000		500	3540	42.250	30.330
50UY322 2,1	355,98	52,20	133.000	104.000		500	3540	38.930	28.000
50UY421 2,5	302,00	52,00	147.000	118.000	8	500	4720	57.720	41.490
50UY422 2,5	402,64	69,60	169.000	134.000		500	4720	53.600	38.540
50UY421 2,1	356,00	52,00	158.000	126.000		500	4720	56.330	40.440
50UY422 2,1	474,64	69,60	177.000	139.000		500	4720	51.910	37.340





Model Model	**Boyutlar** / Dimensions							**Bağlantılar** / Connections			**Enerji Sınıfı** Energy Consumption
	L	H	W	LT	H1	H2	W1	**Adet** Qty	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(ad)**	**(mm)**	**(mm)**	
50UY111 2,5	120	141	101	80	85	43	88	1	22	19	E
50UY112 2,5	120	141	101	80	85	43	88	1	22	19	E
50UY111 2,1	120	141	101	80	85	43	88	1	22	19	E
50UY112 2,1	120	141	101	80	85	43	88	1	22	19	D
50UY211 2,5	200	141	101	160	85	43	88	1	35	28	E
50UY121 2,5	120	141	178	80	85	43	165	1	35	28	E
50UY212 2,5	200	141	101	160	85	43	88	1	35	28	E
50UY122 2,5	120	141	178	80	85	43	165	1	35	28	E
50UY211 2,1	200	141	101	160	85	43	88	1	35	28	E
50UY121 2,1	120	141	178	80	85	43	165	1	35	28	E
50UY212 2,1	200	141	101	160	85	43	88	1	35	28	D
50UY122 2,1	120	141	178	80	85	43	165	1	35	28	D
50UY311 2,5	280	141	101	80	85	43	88	1	42	35	E
50UY312 2,5	280	141	101	80	85	43	88	1	42	35	E
50UY311 2,1	280	141	101	80	85	43	88	1	42	35	E
50UY312 2,1	280	141	101	80	85	43	88	1	42	35	D
50UY411 2,5	360	141	101	80	85	43	88	1	42	35	E
50UY221 2,5	200	141	178	160	85	43	165	1	42	35	E
50UY412 2,5	360	141	101	80	85	43	88	1	42	35	E
50UY222 2,5	200	141	178	160	85	43	165	1	42	35	E
50UY411 2,1	360	141	101	80	85	43	88	1	42	35	E
50UY221 2,1	200	141	178	160	85	43	165	1	42	35	E
50UY412 2,1	360	141	101	80	85	43	88	1	42	35	D
50UY222 2,1	200	141	178	160	85	43	165	1	42	35	D
50UY321 2,5	280	141	178	80	85	43	165	2	54	42	E
50UY322 2,5	280	141	178	80	85	43	165	2	54	42	E
50UY321 2,1	280	141	178	80	85	43	165	2	54	42	E
50UY322 2,1	280	141	178	80	85	43	165	2	54	42	D
50UY421 2,5	360	141	178	80	85	43	165	2	64	54	E
50UY422 2,5	360	141	178	80	85	43	165	2	64	54	E
50UY421 2,1	360	141	178	80	85	43	165	2	64	54	E
50UY422 2,1	360	141	178	80	85	43	165	2	64	54	D

63 UY Serisi
63 UY Serie

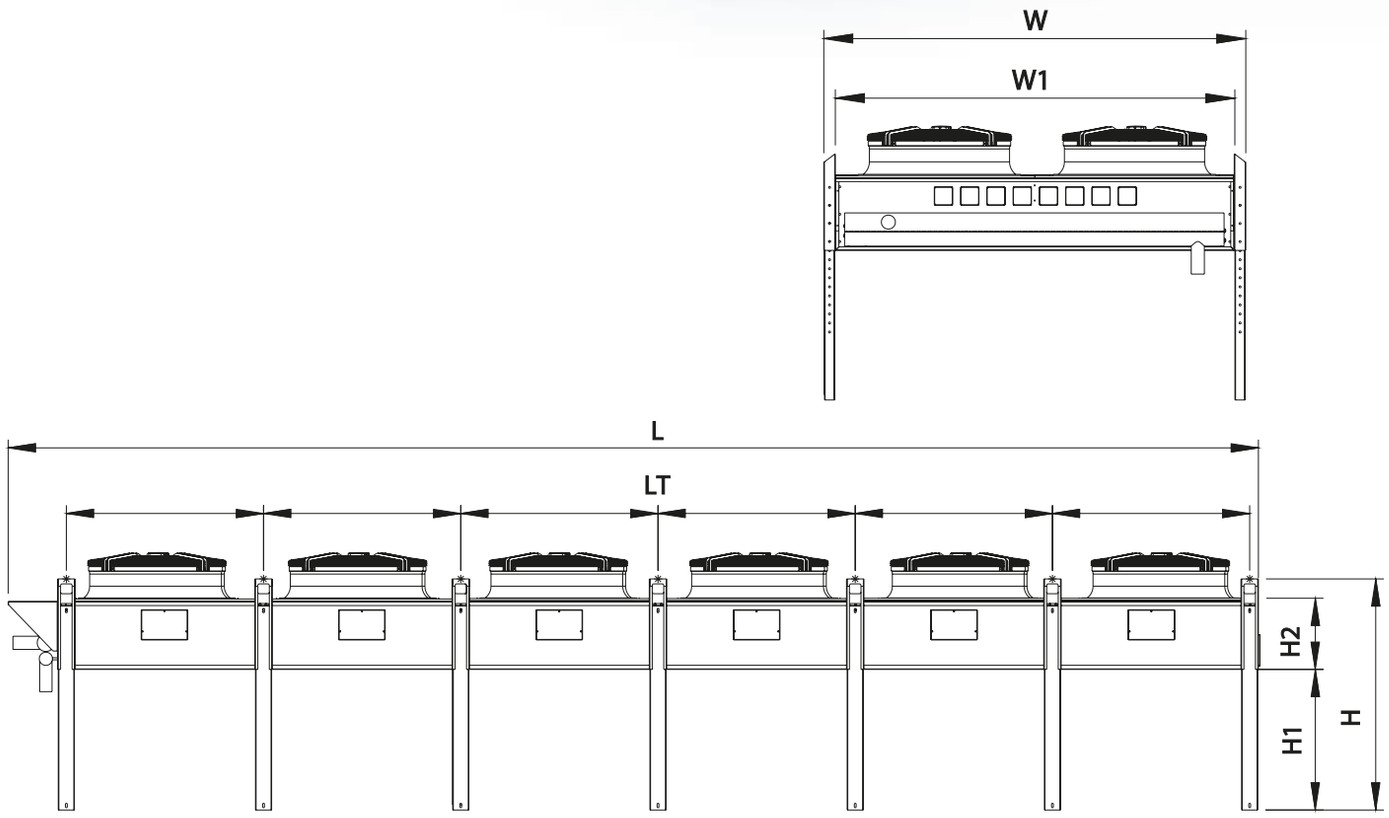
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

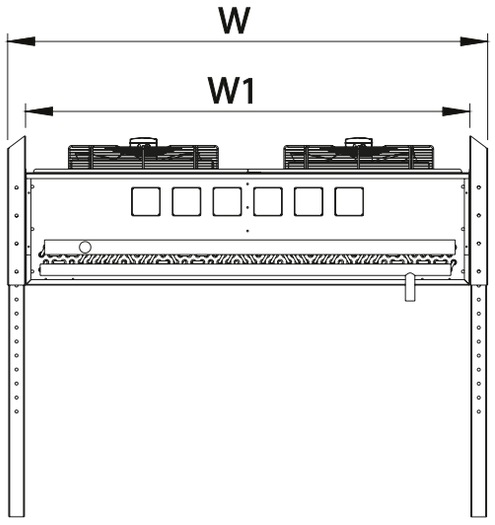
Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S Ø630mm 1/230V AC 50Hz 880 rpm	**L Ø630mm 3/ 400V AC 50Hz 620 rpm**	**Adet** Qty	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow 880 rpm	**L Hava Debisi** Air Flow 620 rpm
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)	(m³/h)
63UY111 2,5	55,05	9,50	23.000	19.000	1	630	610	8.700	6.430
63UY112 2,5	73,40	12,70	27.000	21.000		630	610	8.110	5.960
63UY111 2,1	64,90	9,50	25.000	20.000		630	610	8.480	6.250
63UY112 2,1	86,53	12,70	28.000	22.000		630	610	7.880	5.800
63UY211 2,5	110,10	19,00	47.000	38.000	2	630	1220	17.410	12.860
63UY121 2,5	110,10	19,00	47.000	38.000		630	1220	17.410	12.860
63UY212 2,5	146,80	25,40	54.000	43.000		630	1220	16.220	11.930
63UY122 2,5	146,80	25,40	54.000	43.000		630	1220	16.220	11.930
63UY211 2,1	129,80	19,00	50.000	40.000		630	1220	16.970	12.500
63UY121 2,1	129,80	19,00	50.000	40.000		630	1220	16.970	12.500
63UY212 2,1	173,06	25,40	56.000	44.000		630	1220	15.760	11.610
63UY122 2,1	173,06	25,40	56.000	44.000		630	1220	15.760	11.610
63UY311 2,5	165,15	28,50	71.000	57.000	3	630	1830	26.120	19.290
63UY312 2,5	220,20	38,10	81.000	64.000		630	1830	24.340	17.900
63UY311 2,1	194,70	28,50	76.000	61.000		630	1830	25.460	18.760
63UY312 2,1	259,59	38,10	85.000	67.000		630	1830	23.640	17.410
63UY411 2,5	220,20	38,00	94.000	77.000	4	630	2440	34.830	25.730
63UY412 2,5	293,60	50,80	108.000	86.000		630	2440	32.450	23.860
63UY221 2,5	220,20	38,00	94.000	77.000		630	2440	34.830	25.730
63UY222 2,5	293,60	50,80	108.000	86.000		630	2440	32.450	23.860
63UY411 2,1	259,60	38,00	101.000	81.000		630	2440	33.950	25.010
63UY412 2,1	346,12	50,80	113.000	89.000		630	2440	31.520	23.220
63UY221 2,1	259,60	38,00	101.000	81.000		630	2440	33.950	25.010
63UY222 2,1	346,12	50,80	113.000	89.000		630	2440	31.520	23.220
63UY321 2,5	330,30	57,00	142.000	115.000	6	630	3660	52.240	38.590
63UY322 2,5	440,40	76,20	162.000	129.000		630	3660	48.680	35.800
63UY321 2,1	389,40	57,00	152.000	122.000		630	3660	50.930	37.520
63UY322 2,1	519,18	76,20	170.000	134.000		630	3660	47.290	34.830
63UY421 2,5	440,40	76,00	189.000	154.000	8	630	4880	69.660	51.460
63UY422 2,5	587,20	101,60	217.000	173.000		630	4880	64.910	47.730
63UY421 2,1	519,20	76,00	203.000	163.000		630	4880	67.910	50.030
63UY422 2,1	692,24	101,60	227.000	179.000		630	4880	63.050	46.440
63UY521 2,5	550,50	95,00	237.000	193.000	10	630	6100	87.080	64.330
63UY522 2,5	734,00	127,00	271.000	216.000		630	6100	81.140	59.670
63UY521 2,1	649,00	95,00	254.000	204.000		630	6100	84.890	62.540
63UY522 2,1	865,30	127,00	284.000	224.000		630	6100	78.820	58.060
63UY621 2,5	660,60	114,00	284.000	231.000	12	630	7320	104.490	77.190
63UY622 2,5	880,80	152,40	325.000	259.000		630	7320	97.360	71.600
63UY621 2,1	778,80	114,00	305.000	245.000		630	7320	101.860	75.040
63UY622 2,1	1038,36	152,40	340.000	269.000		630	7320	94.580	69.670



Model Model	**Boyutlar** / Dimensions							**Bağlantılar** / Connections			**Enerji Sınıfı** Energy Consumption
	L	H	W	LT	H1	H2	W1	**Adet** Qty	**Giriş** Input	**Çıkış** Output	
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(ad)	(mm)	(mm)	
63UY111 2,5	140	141	114	100	85	43	101	1	28	22	D
63UY112 2,5	140	141	114	100	85	43	101	1	28	22	D
63UY111 2,1	140	141	114	100	85	43	101	1	28	22	D
63UY112 2,1	140	141	114	100	85	43	101	1	28	22	D
63UY211 2,5	240	141	114	200	85	43	101	1	35	28	D
63UY121 2,5	140	141	203	100	85	43	190	1	35	28	D
63UY212 2,5	240	141	114	200	85	43	101	1	35	28	D
63UY122 2,5	140	141	203	100	85	43	190	1	35	28	D
63UY211 2,1	240	141	114	200	85	43	101	1	35	28	D
63UY121 2,1	140	141	203	100	85	43	190	1	35	28	D
63UY212 2,1	240	141	114	200	85	43	101	1	35	28	D
63UY122 2,1	140	141	203	100	85	43	190	1	35	28	D
63UY311 2,5	340	141	114	100	85	43	101	1	42	35	D
63UY312 2,5	340	141	114	100	85	43	101	1	42	35	D
63UY311 2,1	340	141	114	100	85	43	101	1	42	35	D
63UY312 2,1	340	141	114	100	85	43	101	1	42	35	D
63UY411 2,5	440	141	114	100	85	43	101	1	54	42	D
63UY412 2,5	440	141	114	100	85	43	101	1	54	42	D
63UY221 2,5	240	141	203	200	85	43	190	1	54	42	D
63UY222 2,5	240	141	203	200	85	43	190	1	54	42	D
63UY411 2,1	440	141	114	100	85	43	101	1	54	42	D
63UY412 2,1	440	141	114	100	85	43	101	1	54	42	D
63UY221 2,1	240	141	203	200	85	43	190	1	54	42	D
63UY222 2,1	240	141	203	200	85	43	190	1	54	42	D
63UY321 2,5	340	141	203	100	85	43	190	2	64	54	D
63UY322 2,5	340	141	203	100	85	43	190	2	64	54	D
63UY321 2,1	340	141	203	100	85	43	190	2	64	54	D
63UY322 2,1	340	141	203	100	85	43	190	2	64	54	D
63UY421 2,5	440	141	203	100	85	43	190	2	64	54	D
63UY422 2,5	440	141	203	100	85	43	190	2	64	54	D
63UY421 2,1	440	141	203	100	85	43	190	2	64	54	D
63UY422 2,1	440	141	203	100	85	43	190	2	64	54	D
63UY521 2,5	540	141	203	100	85	43	190	2	80	64	D
63UY522 2,5	540	141	203	100	85	43	190	2	80	64	D
63UY521 2,1	540	141	203	100	85	43	190	2	80	64	D
63UY522 2,1	540	141	203	100	85	43	190	2	80	64	D
63UY621 2,5	640	141	203	100	85	43	190	2	80	64	D
63UY622 2,5	640	141	203	100	85	43	190	2	80	64	D
63UY621 2,1	640	141	203	100	85	43	190	2	80	64	D
63UY622 2,1	640	141	203	100	85	43	190	2	80	64	D

80 UY Serisi
80 UY Serie



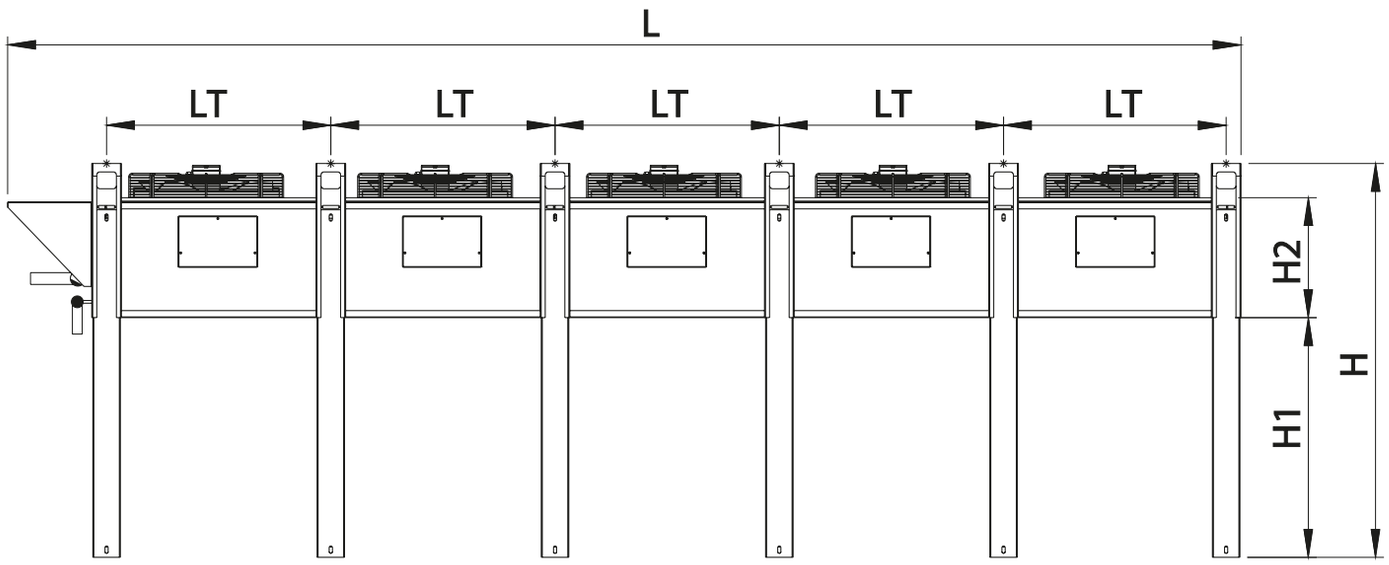
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S Ø800mm 3/ 400V AC 50Hz 880 rpm	**L Ø800mm 3/ 400V AC 50Hz 670**	**Adet** Qty	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow 880 rpm	**L Hava Debisi** Air Flow 670 rpm
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m³/h)	(m³/h)
80UY111 2,5	80,22	13,80	43.000	37.000	1	800	1430	18.530	14.300
80UY112 2,5	106,95	18,50	50.000	42.000		800	1430	16.900	13.040
80UY111 2,1	94,56	13,80	47.000	39.000		800	1430	17.910	13.860
80UY112 2,1	126,09	18,50	53.000	44.000		800	1430	16.270	12.550
80UY211 2,5	160,44	27,60	87.000	74.000	2	800	2860	37.060	28.610
80UY121 2,5	160,44	27,60	87.000	74.000		800	2860	37.060	28.610
80UY212 2,5	213,90	37,00	101.000	84.000		800	2860	33.810	26.090
80UY122 2,5	213,90	37,00	101.000	84.000		800	2860	33.810	26.090
80UY211 2,1	189,12	27,60	94.000	79.000		800	2860	35.830	27.730
80UY121 2,1	189,12	27,60	94.000	79.000		800	2860	35.830	27.730
80UY212 2,1	252,18	37,00	106.000	88.000		800	2860	32.540	25.100
80UY122 2,1	252,18	37,00	106.000	88.000		800	2860	32.540	25.100
80UY311 2,5	240,66	41,40	131.000	112.000	3	800	4290	55.590	42.920
80UY312 2,5	320,85	55,50	151.000	127.000		800	4290	50.710	39.140
80UY311 2,1	283,68	41,40	141.000	119.000		800	4290	53.750	41.600
80UY312 2,1	378,27	55,50	159.000	132.000		800	4290	48.810	37.650
80UY411 2,5	320,88	55,20	175.000	149.000	4	800	5720	74.120	57.220
80UY221 2,5	320,88	55,20	175.000	149.000		800	5720	74.120	57.220
80UY412 2,5	427,80	74,00	202.000	169.000		800	5720	67.620	52.190
80UY222 2,5	427,80	74,00	202.000	169.000		800	5720	67.620	52.190
80UY411 2,1	378,24	55,20	189.000	159.000		800	5720	71.670	55.470
80UY221 2,1	378,24	55,20	189.000	159.000		800	5720	71.670	55.470
80UY412 2,1	504,36	74,00	212.000	176.000		800	5720	65.090	50.200
80UY222 2,1	504,36	74,00	212.000	176.000		800	5720	65.090	50.200
80UY321 2,5	481,32	82,80	263.000	224.000	6	800	8580	111.180	85.840
80UY322 2,5	641,70	111,00	303.000	254.000		800	8580	101.430	78.280
80UY321 2,1	567,36	82,80	283.000	239.000		800	8580	107.500	83.200
80UY322 2,1	756,54	111,00	318.000	265.000		800	8580	97.630	75.310
80UY421 2,5	641,76	110,40	351.000	299.000	8	800	11440	148.240	114.450
80UY422 2,5	855,60	148,00	404.000	338.000		800	11440	135.240	104.380
80UY421 2,1	756,48	110,40	378.000	319.000		800	11440	143.340	110.940
80UY422 2,1	1008,72	148,00	424.000	353.000		800	11440	130.180	100.410
80UY521 2,5	802,20	138,00	439.000	374.000	10	800	14300	185.300	143.070
80UY522 2,5	1069,50	185,00	505.000	423.000		800	14300	169.060	130.480
80UY521 2,1	945,60	138,00	472.000	399.000		800	14300	179.180	138.680
80UY522 2,1	1260,90	185,00	531.000	441.000		800	14300	162.730	125.520
80UY621 2,5	962,64	165,60	527.000	448.000	12	800	17160	222.360	171.680
80UY622 2,5	1283,40	222,00	606.000	508.000		800	17160	202.870	156.570
80UY621 2,1	1134,72	165,60	567.000	479.000		800	17160	215.010	166.410
80UY622 2,1	1513,08	222,00	637.000	530.000		800	17160	195.270	150.620



Model Model	**Boyutlar** / Dimensions							**Bağlantılar** / Connections			**Enerji Sınıfı** Energy Consumption
	L	H	W	LT	H1	H2	W1	**Adet** Qty	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(ad)**	**(mm)**	**(mm)**	
80UY111 2,5	160	141	133	120	85	43	120	1	35	28	E
80UY112 2,5	160	141	133	120	85	43	120	1	35	28	E
80UY111 2,1	160	141	133	120	85	43	120	1	35	28	E
80UY112 2,1	160	141	133	120	85	43	120	1	35	28	D
80UY211 2,5	280	141	133	240	85	43	120	1	54	42	E
80UY121 2,5	160	141	242	120	85	43	229	1	54	42	E
80UY212 2,5	280	141	133	240	85	43	120	1	54	42	E
80UY122 2,5	160	141	242	120	85	43	229	1	54	42	E
80UY211 2,1	280	141	133	240	85	43	120	1	54	42	E
80UY121 2,1	160	141	242	120	85	43	229	1	54	42	E
80UY212 2,1	280	141	133	240	85	43	120	1	54	42	D
80UY122 2,1	160	141	242	120	85	43	229	1	54	42	D
80UY311 2,5	400	141	133	120	85	43	120	1	64	54	E
80UY312 2,5	400	141	133	120	85	43	120	1	64	54	E
80UY311 2,1	400	141	133	120	85	43	120	1	64	54	E
80UY312 2,1	400	141	133	120	85	43	120	1	64	54	D
80UY411 2,5	520	141	133	120	85	43	120	1	64	54	E
80UY221 2,5	280	141	242	240	85	43	229	1	64	54	E
80UY412 2,5	520	141	133	120	85	43	120	1	64	54	E
80UY222 2,5	280	141	242	240	85	43	229	1	64	54	E
80UY411 2,1	520	141	133	120	85	43	120	1	64	54	E
80UY221 2,1	280	141	242	240	85	43	229	1	64	54	E
80UY412 2,1	520	141	133	120	85	43	120	1	64	54	D
80UY222 2,1	280	141	242	240	85	43	229	1	64	54	D
80UY321 2,5	400	141	242	120	85	43	229	2	80	64	E
80UY322 2,5	400	141	242	120	85	43	229	2	80	64	E
80UY321 2,1	400	141	242	120	85	43	229	2	80	64	E
80UY322 2,1	400	141	242	120	85	43	229	2	80	64	D
80UY421 2,5	520	141	242	120	85	43	229	2	108	80	E
80UY422 2,5	520	141	242	120	85	43	229	2	108	80	E
80UY421 2,1	520	141	242	120	85	43	229	2	108	80	E
80UY422 2,1	520	141	242	120	85	43	229	2	108	80	D
80UY521 2,5	640	141	242	120	85	43	229	2	120	108	E
80UY522 2,5	640	141	242	120	85	43	229	2	120	108	E
80UY521 2,1	640	141	242	120	85	43	229	2	120	108	E
80UY522 2,1	640	141	242	120	85	43	229	2	120	108	D
80UY621 2,5	760	141	242	120	85	43	229	2	120	108	E
80UY622 2,5	760	141	242	120	85	43	229	2	120	108	E
80UY621 2,1	760	141	242	120	85	43	229	2	120	108	E
80UY622 2,1	760	141	242	120	85	43	229	2	120	108	D

63-80 VUK Serisi
63-80 VUK Serie

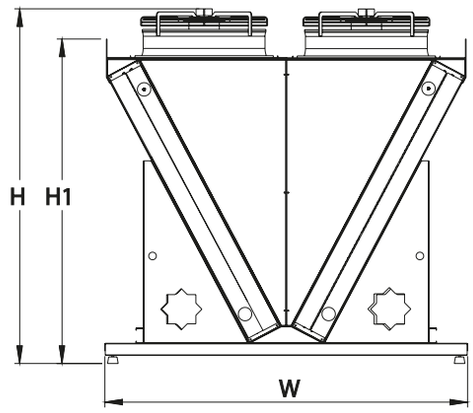
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

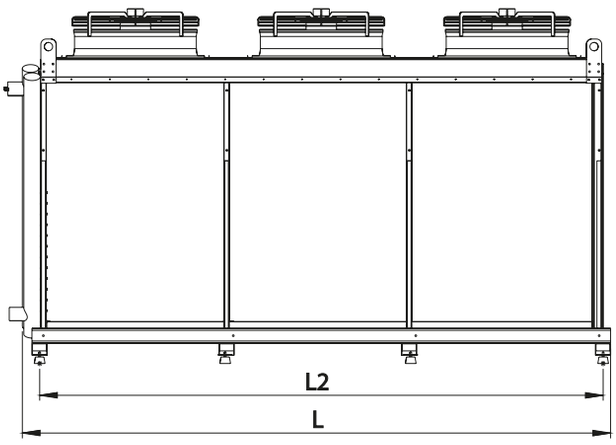
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S Ø630mm 1/ 230V AC 50Hz 880 rpm	**L Ø630mm 1/ 230V AC 50Hz 620 rpm**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S Hava Debisi** Air Flow 3/ 400V AC 880 rpm	**L Hava Debisi** Air Flow 3/ 400V AC 620 rpm
	(m^2)	**(dm^3)**	**(Watt)**	**(Watt)**	**(n)**	**(Ømm)**	**(Watt)**	**(m3/h)**	**(m3/h)**
63VUK211	329,10	25,0	108.000	72.000	2	630	1220	37.704	20.258
63VUK212	438,82	33,2	130.000	82.000	2	630	1220	38.156	19.818
63VUK311	493,65	37,5	170.000	112.000	3	630	1830	58.104	30.240
63VUK312	658,23	49,8	194.000	126.000	3	630	1830	57.234	30.240
63VUK412	877,64	66,6	259.000	163.000	4	630	2440	76.312	39.634
80VUK211	492,32	35,2	148.000	-	2	800	2860	46.888	-
80VUK212	657,58	49,2	168.000	-	2	800	2860	45.708	-
80VUK311	738.48	52,8	208.000	-	3	800	4290	66.128	-
80VUK312	986,36	74,2	243.000	-	3	800	4290	64.258	-
80VUK412	1315,16	98,6	350.000	-	4	800	5720	91.332	-
80VUK221	704,06	53,4	252.000	-	4	800	5720	89.728	-
80VUK222	938,76	71,4	301.000	-	4	800	5720	69.184	-
80VUK321	1056,10	80,0	390.000	-	6	800	8580	120.860	-
80VUK322	1408,14	106,8	446.000	-	6	800	8580	118.498	-





Model Model	**Boyutlar** / Dimensions					**Bağlantılar** / Connections			**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**L2**	**H1**	**Adet** Qty	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(ad)**	**(mm)**	**(mm)**	
63VUK211	235	157	120	208.5	145	1	42	35	C
63VUK212	235	157	120	208.5	145	1	54	42	C
63VUK311	335	157	120	308.5	145	1	54	42	C
63VUK312	335	157	120	308.5	145	1	64	54	C
63VUK412	435	157	120	408.5	145	1	80	64	C
80VUK211	275	192	120	248.5	172	1	64	54	D
80VUK212	275	192	120	248.5	172	1	64	54	D
80VUK311	395	192	120	368.5	172	1	64	54	D
80VUK312	395	192	120	368.5	172	1	80	64	D
80VUK412	515	192	120	488.5	172	1	80	64	D
80VUK221	275	235	240	248.5	214	1	80	64	D
80VUK222	275	235	240	248.5	214	1	80	64	D
80VUK321	395	235	240	368.5	214	1	80	64	D
80VUK322	395	235	240	368.5	214	1	105	80	D

63-80 VUY Serisi
63-80 VUY Serie

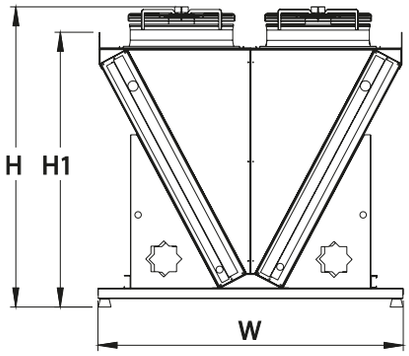
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

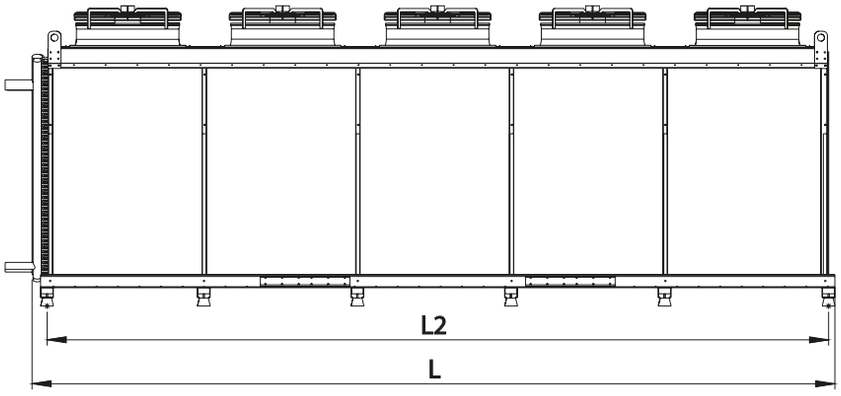
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 2,1 mm - 2,5 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** / Capacity (Δt=15°C)		**Fanlar** / Fans				
			S **Ø630mm** **1/ 230V AC 50Hz** **880 rpm"**	**0**	**Fan Adeti** Fan Quantity	**Çap** Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**S** **Hava Debisi** Air Flow 1/ 230V AC 880 rpm	**L** **Hava Debisi** Air Flow 1/ 230V AC 620 rpm
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(Watt)	(m3/h)	(m3/h)
63VUY211	311,64	46,2	120.000	78.000	2	630	1220	38.188	19.869
63VUY212	415,64	61,6	135.000	85.000	2	630	1220	37.358	19.417
63VUY311	467,46	46,2	179.000	115.000	3	630	1830	57.282	29.232
63VUY312	628,52	92,2	202.000	124.000	3	630	1830	56.037	28.952
63VUY411	630,44	92,4	239.000	154.000	4	630	2440	76.376	39.736
63VUY412	838,02	123,2	269.000	169.000	4	630	2440	74.716	38.834
80VUY211	466.12	65,2	163.000	-	2	800	2860	45.496	-
80VUY212	621,48	86,8	181.000	-	2	800	2860	43.978	-
80VUY311	669,16	97,8	241.000	-	3	800	4290	66.325	-
80VUY312	934,52	136,8	275.000	-	3	800	4290	65.789	-
80VUY411	932,22	143,2	325.000	-	4	800	5720	90.995	-
80VUY412	1246,02	182,4	367.000	-	4	800	5720	87.872	-
80VUY511	1165,28	162,8	406.000	-	5	800	8580	110.569	-
80VUY512	1557,54	228,0	446.000	-	5	800	8580	109.865	-
80VUY221	666,74	95,6	289.000	-	4	800	5720	85.340	-
80VUY222	890,02	130,0	305.000	-	4	800	5720	82.304	-
80VUY321	1010,28	146,6	437.000	-	6	800	8580	121.586	-
80VUY322	1335,04	195,4	467.000	-	6	800	8580	120.862	-
80VUY421	1335,04	204,4	578.000	-	8	800	11440	170.682	-
80VUY422	1780,04	260,1	609.000	-	8	800	11440	164.604	-
80VUY521	1668,78	244,0	727.000	-	10	800	17160	210.682	-
80VUY522	2225,06	352,8	760.000	-	10	800	17160	204.689	-





Model Model	**Boyutlar** / Dimensions					**Bağlantılar** / Connections			**Enerji Sınıfı** Energy Consumption
	L	**H**	**W**	**L2**	**H1**	**Adet** Qty	**Giriş** Input	**Çıkış** Output	
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(ad)**	**(mm)**	**(mm)**	
63VUY211	235	157	120	208.5	145	1	54	42	C
63VUY212	235	157	120	208.5	145	1	54	42	B
63VUY311	335	157	120	308.5	145	1	54	42	C
63VUY312	335	157	120	308.5	145	1	64	54	B
63VUY411	435	157	120	408.5	145	1	64	54	C
63VUY412	435	157	120	408.5	145	1	64	54	B
80VUY211	275	192	120	248.5	172	1	54	42	D
80VUY212	275	192	120	248.5	172	1	64	54	D
80VUY311	395	192	120	368.5	172	1	64	54	D
80VUY312	395	192	120	368.5	172	1	80	64	D
80VUY411	515	192	120	488.5	172	1	105	80	D
80VUY412	515	192	120	488.5	172	1	105	80	D
80VUY511	635	192	120	608.5	172	1	105	80	D
80VUY512	635	192	120	608.5	172	1	105	105	D
80VUY221	275	235	240	248.5	214	1	80	64	E
80VUY222	275	235	240	248.5	214	1	105	80	D
80VUY321	395	235	240	368.5	214	1	105	80	C
80VUY322	395	235	240	368.5	214	1	105	80	D
80VUY421	515	235	240	488.5	214	1	105	105	D
80VUY422	515	235	240	488.5	214	1	105	105	D
80VUY521	635	235	240	608.5	214	1	105	105	D
80VUY522	635	235	240	608.5	214	1	105	105	D

NEW GENERATION COOLANTS

Yeni Nesil Soğutucular

BUZÇELİK
THERMIC EQUIPMENTS INDUSTRY

STANDART ODA SOĞUTUCULARI

Cubic Type Unit Coolers

KSD-KSA
MSD-MSA-MSS-MSO
NSS-NSO
OSS-OSO
PSS-PSO
SERIES

BATARYA

- Bakır borular Ø3/8", Ø1/2", Ø5/8"
- V-tipi alüminyum lamel.
- Lamel araları 4-6-8-1O mm tasarlanmıştır,
- Giriş - çıkış kolektör malzemesi bakırdır,
- İzin verilen en yüksek çalışma basıncı Ps=21 Bar.
- Şaşırtmalı boru dizilimi.
- Soğutucular R404A, R407C, R407F, R507F, R22, Rl 34A, R449A, R290A, R41 DA soğutucu gazlarla çalışmaya uygun tasarım.
- Opsiyonel olarak 4mm ile 12mm aralığında farklı hatveler seçeneği.
- Soğutucu akışkan distribütörü.

Coil

- Ø3/8", Ø1/2 and Ø5/8" copper tubes.
- "V" type aluminum fins.
- The finned coils are designed with aluminum fins spaced at 4, 6, 8, or 1 O mm, crimped onto copper tubes.
- Header inlet and outlet tube connections made of copper.
- Maximum operating pressure 21 bar.
- Staggered copper tubes.
- The coil circuits are designed for refrigerants R404A, R507C, R22, Rl 34A, R449A, R407F.
- Different fın spacing can be selected as an option for 4mm to 12mm.
- Refrigerant distributor.

KASETLEME

- Galvaniz çelik üzerine elektrostatik RAL 9016 boyalıdır.
- İsteğe bağlı Paslanmaz Çelik ve Alüminyum kaset seçeneği.
- Sökülebilir yan kapaklar
- Menteşeli/Katlanır drenaj tavası tüm modellerde standarttır.
- Ara drenaj tavası.

Casing

- Electrostatic powder coated RAL 9016 galvanized steeL
- Stainless steel and aluminum casing as optionaL
- Side panels are removable.
- Hinged/Folding drain tray is standard for ali models.
- Intermediate drain pan.

FAN

- Oda boyutlarına göre farklı fan çapı ve fan sayısına sahip soğutucu seçenekleri.
- Opsiyonel seçimler Buzçelik Teknik Uzmanı tarafından teyit edilmelidir
- Standart veya düşük ses seviyeli bakım gerektirmeyen fan seçeneği.
- İsteğe bağlı AC ya da EC fan motor seçenekleri.
- Koruma sınıfı IP54, fan konstrüksiyonu izolasyon malzeme sınıfı F
- Opsiyonel olarak seçilebilir fan aksesuar çeşitleri (Axicool fanlar, FlowGrid gürültü düşürücüler vb.)
- Çalışma aralığı -40°C/+50°C'dir

Fan

- Selection of a unit cooler with various fan number/diameter combinations offering the dimensional and air throw characteristics besi adapted to the size of the cold room.
- Selections should be confirmed by your Buzçelik Technical Specialist.
- Standard or low noise level are available.
- Different kinds of motors available as optionaL (EC or AC)
- Motor protection IP54 insulation class F.
- Different kinds of accessories available as optionaL (Axicool Fans, FlowGrid etc.)
- Working conditions -40"C/+50"C.

DEFROST

- B1 defrost sistemi 0°C/+5°C oda sıcaklığındaki uygulama aralığı içindir. Defrost ısıtıcılar yalnızca batarya üzerine montaj edilir
- B2 defrost sistemi -34°C/0°C oda sıcaklığı uygulama aralığı içindir. Defrost ısıtıcılar batarya ve drenaj tavasına monte edilir.
- Drenaj hattı ısıtıcısı, fan davlumbaz ısıtıcısı, sıcak gaz defrost sistemi ve sulu defrost sistemi opsiyoneldir
- Defrost uygulaması hızlı ve verimli defrost için homojen ısı dağılımı sağlar
- +4°C'den büyük veya eşit oda sıcaklıklarında isteğe bağlı olarak tava derinliği arttırılmış soğutucu tasarımı ile sulu defrost seçeneği.
- - B 1 (Factory) : Hafif elektrik defrost (Batarya)
- - B2 (Factory): Elektrik defrost (Batarya + Drenaj Tavası)
- - HGD (Factory) Sıcak gaz defrost (Batarya ve Drenaj Tavası)
- - WD (Factory) Sulu defrost

Defrosting

- B1 type defrost system suitable for 0°C/+5°C cold room applications.
- Defrost heaters are applied on heat exchanger coiL
- B2 type defrost system suitable for -34°C/O°C frozen room applications.
- Defrost heaters are applied on both heat exchanger coil and drain tray.
- Drain line heaters, fan housing heaters, hol gas defrost system and water defrost system are optionaL
- This facility enables homogenous heat distribution for fası and efficient defrosting.
- A water defrost (WD) option is available for room temperature equal to or greater than +4°C. in this case the unit cooler depth is increased amount of depth.
- B1 (Factory): Light electric defrost
- B2 (Factory): Electric defrost (coil + drain pan)
- HGD (Factory) Hol gas (coil and drain pan)
- WD (Factory): Water defrost

KAPASİTE

Nominal kapasiteler SC1-SC2-SC3-SC4 koşullarında R404A gaza göre Eurovent EN 328 standartları dikkate alınarak verilmiştir

Capacity

The nominal capacities calculated according to Eurovent EN328 standards that reler to SC1-SC2-SC3-SC4 conditions and are valid for R404A

SEÇENEKLER

- Farklı dış kabin rengi,
- Farklı boru et kalınlığı ve hatve,
- Monofaze 220V 1 ~ 50Hz, Trifaze 400V 3~ 50Hz fan seçeneği.
- Katalogda belirtilmeyen özel ürünler için lütfen satış departmanı ile irtibata geçin.

Options

- Different casing color.
- Other tube wall thicknesses and fin spacing on request.
- Mono phase 220V 1 ~ 50Hz fan or three phase 400V 3~ 50Hz fan.
- Please keep in touch with our sales department about your special needs that are not mentioned in the catalogue.

NOT

Montaj, Bakım - Taşıma ve Kaldırma detayları için kullanım Kılavuzuna başvurunuz.

Note

Please read "Installation, Operation and Maintenance Instructions" for mounting and maintenance.

AKSESUARLAR

- Bataryada ve tavada sıcak gaz defrost,
- Yalıtım tavası,
- Paslanmaz çelik kabin,
- Epoxy boya,
- Fan kablo rezistansı,
- Drenaj hattı kablo rezistans.

Accessories

- Hol gas defrost in coil and drip tray.
- Insulated drip tray.
- Casing made of stainless steeL
- Epoxy resin coated aluminum fins.
- Fan cable heaters.
- Drain line cable heater.

Options As Listed Are Available On Request Far Assistance Please Contact Buzçelik Branch Glycol options available - Selections should be confirmed by your Buzçelik Technical Specialist

ADLANDIRMA
CLASSIFICATION

M S A 40 212

Geometri Geometry	Tip Type	Hatve Aralığı Fin Space	Fan Çapı Fan Diameter	Fan Dizisi Fan Array	Ürün Numarası Product Number
K : 32x28-3/8" M : 40x35-1 /2" N : 40x35-5/8" O : 55x48-1 /2" P : 55x48-5/8"	S : Kübik Tip T : Tek Üflemeli Tavan Tipi C : Çift Üflemeli Tavan Tipi S : Cubic Unit Cooler T : Single Discharge Unit Cooler C : Dual Discharge Unit Cooler	D: 4mm A: 6mm S: 8mm O: 10mm	0 ... cm	Sütun x Satır Column x Row	

KAPASİTE STANDARTLARI
CAPACITY STANDARD

Nominal kapasite değerleri Eurovent standart şartları EN328'de tanımlanan ΔT1 esasına göre verilmiştir.
Nominal capacities in the catalog are given according to ΔT1 as defineci in EN 328 standard conditions of Eurovent.

ΔT1 = (Oda Sıcaklığı) - (Evaporasyon Sıcaklığı)
ΔT1 = (Room Temp.)- (Evaporation Temp.)

Tablo-1 : Standart Şartlar (Eurovent EN 328)
Table-1 Standard Conditions (Eurovent EN 328)

Freon için Standart Şartlar Standard Conditions tor Refrigerants	Oda Sıcaklığı °C Room Temperature	Evaporasyon Sıcaklığı °C Evaporating Temp.
SC1	10	0
SC2	0	-8
SC3	-18	-25
SC4	-25	-31

TABLO-2 / Table-2

Oda Sıcaklığına Bağlı Olarak Önerilen Lamel Aralıkları
Recommended Efficient Fin Spacings According to Room Temperatures

Eurovent 328 Standart	Lamel Aralığı Fin Spacing	Oda Sıcaklığı (T1) Room Temp.(T1)
SC1	4mm ~ 6mm	10°C
SC2	6mm ~ 8mm	0 °C
SC3	8mm ~ 10mm	-18 °C
SC4	10mm	-25 °C

TABLO-3 / Table-3

Sıcaklık ve Soğutucu için Düzeltme Tablosu Temperature and Refrigerant Correction Table														
ΔT,1(°C)		K1 Sıcaklık Düzeltme Faktörü Condensation Temperature °C								K2 Soğutucu Faktör Refrigerant Factor				
		4	5	6	7	8	10	12	14	Refrigerant	14	14	14	14
Evaporasyon Sıcaklığı T2 (°C) Evaporation Temperature T2 (°C)	10	0,67	0,83	0,99	1,15	1,32	1,64	1,96	2,29	R404A	1	1	1	1
	5	0,63	0,78	0,94	1, 1	1,26	1,57	1,88	2,2	R507A	0,97	0,97	0,97	0,97
	o	0,6	0,75	0,9	1,06	1,2	1,52 (K1 SC1)	1,82	2,12	R134A	0,93	0,91	0,85	-
	-5	0,57	0,72	0,86	1,01	1,1 5	1,44	1,74	2,03	R22				
	-8	0,5	0,63	0,76	0,88	1,00 (K1 SC2)	1,26	1,51	1,76	R407A	1,19	1,24	1,28	1,32
	-10	0,49	0,6	0,72	0,85	0,97	1,22	1,47	1,71	R407C	1,21	1,26	1,31	1,36
	-15	0,47	0,59	0,71	0,82	0,94	1,17	1,4	1,63	R407F	1,19	1,24	1,29	1,35
	-20	0,44	0,55	0,66	0,77	0,88	1,1	1,32	1,54					
	-25	0,42	0,52	0,62	0,73 (K1 SC3)	0,83	1,04	1,25	1,46					
	-30	0,39	0,49	0,58 (K1 SC4)	0,69	0,78	0,97	1, 17	1,36					
	-35	0,35	0,45	0,54	0,63	0,72	0,9	1,08	1,26					
	-40	0,33	0,41	0,49	0,57	0,65	0,81	0,97	1,13					

TABLO-4 / Table-4

Lamel Malzemesi için Düzeltme Faktörleri Fin Material Correction Factors			
Lamel Malzemesi Fin Material	Alüminyum Aluminum	Kaplı Alüminyum Coated Aluminum	Bakır Copper
K2	1	0,97	1,03

ÖRNEK SEÇİM
Selection Example

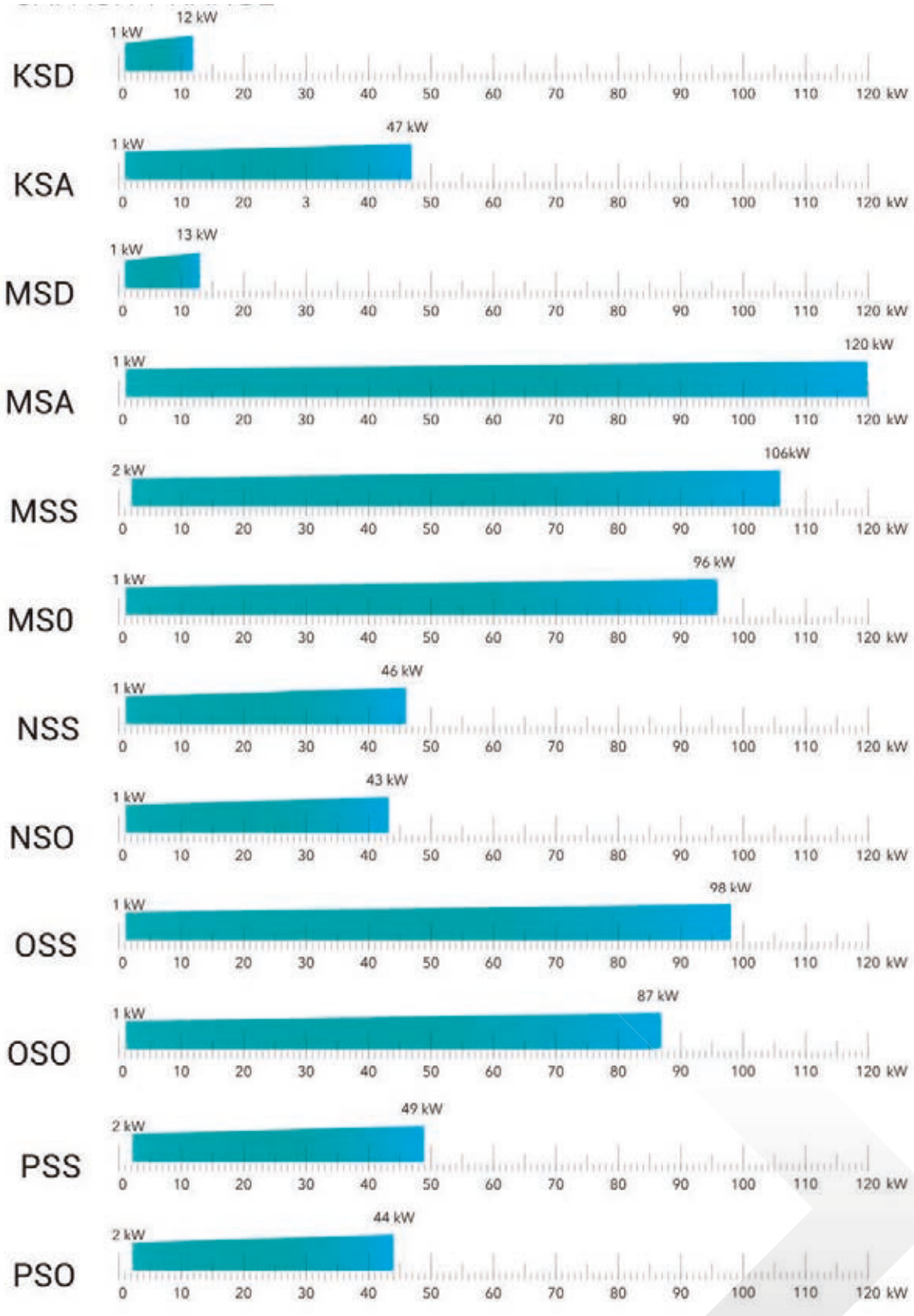
Evaporatör çalışma şartları stadart şartların dışında ise aşağıdaki formülasyon ve tablolar kullanılarak ürün kapasitesi SC2 şartına dönüştürülebilir Bu durumda oda sıcaklığına uygun lamel aralığı belirlenip SC2 kapasite değeri ile ürün seçimi önerilir
Soğutma Yükü Q Oda = 22,00 kW
Soğutucu Akışkan = R22
Oda Sıcaklığı T1 =+5 °C
Evaporasyon Sıcaklığı T2 = -5 °C
ΔT = T1 - T2 = (5)-(-5) =10 °C
Mevcut şartlara yakın olan SC2 Eurovent Standardı seçilir
Tablo-2 6mm Lamel seçildi
Tablo-3 ΔT =10 °C => K1 =1,44
Tablo-3 K1 ,SC2= 1,00
Tablo-3 Soğutkan R22 => K2=0,97

Fin Malzemesi Al
Tablo-4 K3=1,00
QSC2 = (QODA/K2) x (K1 ,SC2/K1) / K3 = 15,75 kW
Secilen Soğutucu KSA50 214 (SC2= 15 600Watt)

If the operating condition of the evaporator is different than Eurovent standards, please use the following formu la and tabi es to convert your capacity to SC2 conditions. 1 n this case, the evaporator can be selected from suitable fin space and SC2 columns.
Cooling Capacity Q Room = 22,00 kW
Refrigerant = R22
Room Temperature: T1 =+5°C
Evaporation Temperature: T2 =-5°C
ΔT = T1 - T 2 = (5)-(-5) = 7 0 °C
Closest Eurovent Standard is SC2.
Table-2 : 6mm Fin Spacing is chosen.
Table-3 ΔT=10°C=>K1=1,44
Table-3 K1,SC2= 1,00
Table-3 Refrigerant R22 => K2=0,97

Fin Material Al
Table-4 K3=1,00
QSC2 = (QODA/K2) x (K1,SC2/K1) / K3 = 15,75 kW
Selected Unit Cooler KSA50 214 (SC2= 15.600 Watt)

ÜRÜN KAPASİTE ARALIĞI
CAPACITY RANGE



KSD Serisi
KSD Serie

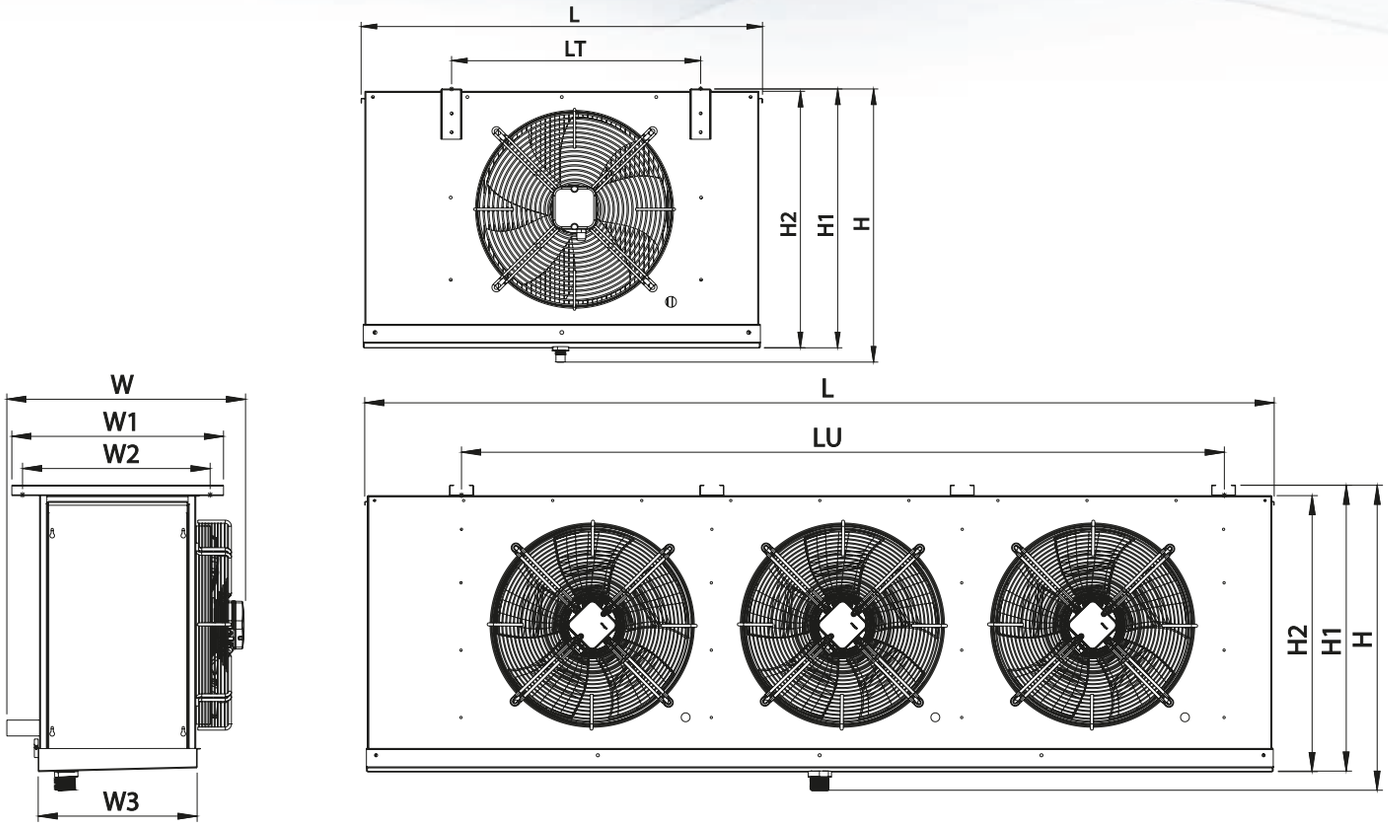
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **230V AC 1300-1400 d/d-rpm**					**Üfleme Mesafesi** Air Throw	
			SC1 Te= 0°C TO= +10°C	**SC2** Te= -8°C TO= 0°C	**SC3** Te= -25°C TO= -18°C	**SC4** Te= -31°C TO= -25°C	**Hava Debisi** Air Flow	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Ses Basınç Seviyesi** Sound Pressure Level	**Yönlendiricisiz** Without Streamer	**Akış Yönlendiricili** With Streamer
	(m^2)	(dm^3)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
KSD25 111	7,16	1,00	1.700	1.160	-	-	720	1	250	69	46	6	13
KSD25 112	9,55	1,30	1.936	1.327	-	-	656		250	69	46	6	12
KSD30111	7,16	1,00	2.571	1.741	-	-	1.461		300	72	41	10	22
KSD30 112	9,55	1,30	3.050	2.065	-	-	1.385		300	72	41	10	21
KSD30 114	14,33	2,00	3.760	2.570	-	-	1.260		300	72	41	9	19
KSD25 212	19,10	2,60	4.207	2.856	-	-	1.312	2	250	138	49	6	12
KSD25 214	28,66	4,00	4.160	2.880	-	-	1.109		250	138	49	5	10
KSD30 211	14,32	2,00	5.142	3.482	-	-	2.922		300	144	44	10	22
KSD30 212	19,10	2,60	6.100	4.130	-	-	2.770		300	144	44	10	21
KSD30 214	28,66	4,00	7.520	5.140	-	-	2.520		300	144	44	9	19
KSD30 312	28,66	4,00	9.694	6.195	-	-	3.833	3	300	216	46	10	21
KSD30 314	42,99	6,00	11.280	7.710	-	-	3.780		300	216	46	9	19



Model Model	**Defrost Isıtıcılar** Electric Defrost Heater			**Boyutlar** Dimensions										**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	B1	B2														
	Batarya Coil	**Batarya** Coil	**Tava** D.Tray	**L**	**H**	**W**	**LT**	**LU**	**H1**	**H2**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(nxW)	**(nxW)**	**(nxW)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
KSD25 111	3x250	3x250	2x250	77	51	47	48	-	46	46	39	36	29	1/2	5/8	E
KSD25 112	4x250	4x250	2x250	77	51	47	48	-	46	46	39	36	29	1/2	5/8	D
KSD30111	3x250	3x250	2x250	77	51	47	48	-	46	46	39	36	29	1/2	5/8	D
KSD30 112	4x250	4x250	2x250	77	51	47	48	-	46	46	39	36	29	1/2	5/8	C
KSD30 114	6x250	6x250	2x250	77	51	57	48	-	46	46	46	43	36	1/2	5/8	C
KSD25 212	4x500	4x500	2x500	121	51	47	-	-	46	46	39	36	29	1/2	19	D
KSD25 214	6x500	6x500	2x500	121	51	57	-	-	46	46	46	43	36	1/2	28	D
KSD30 211	3x500	3x500	2x500	121	51	47	-	-	46	46	39	36	29	1/2	19	D
KSD30 212	4x500	4x500	2x500	121	51	47	-	-	46	46	39	36	29	1/2	22	C
KSD30 214	6x500	6x500	2x500	121	51	57	-	-	46	46	46	43	36	1/2	22	C
KSD30 312	4x750	4x750	2x750	166	51	47	-	138	46	46	39	36	29	22	22	C
KSD30 314	6x750	6x750	2x750	166	51	57	-	138	46	46	46	43	36	22	28	C

KSA Serisi
KSA Serie

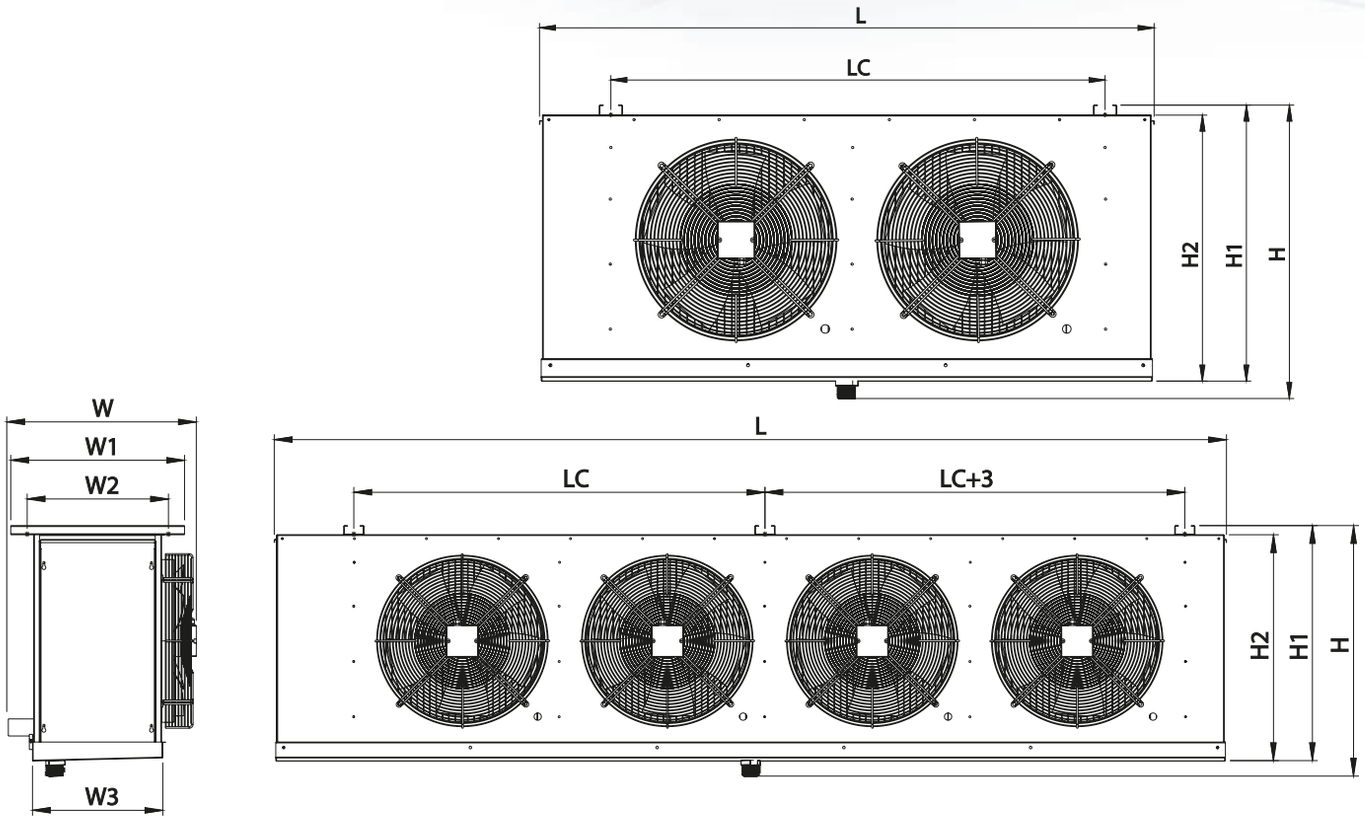
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8"

Hatve / Fin Spacing : 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Fanlar / Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1 Te= 0°C TO= +10°C	SC2 Te= -8°C TO= 0°C	SC3 Te= -25°C TO= -18°C	SC4 Te= -31°C TO= -25°C	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
KSA25 111	4,94	1,00	1.400	950	770	-	770	1	250	69	46	7	14
KSA25 112	6,58	1,30	1.670	1.140	910	-	710		250	69	46	6	13
KSA25 114	9,88	2,00	1.920	1.310	1.070	-	610		250	69	46	5	11
KSA30 111	4,94	1,00	2.025	1.370	1.108	-	1.516		300	72	41	11	23
KSA30 112	6,58	1,30	2.544	1.721	1.338	-	1.447		300	72	41	10	22
KSA30 114	9,88	2,00	3.223	2.200	1.743	-	1.333		300	72	41	10	20
KSA25 212	13,16	2,60	3.320	2.270	1.840	-	1.420	2	250	138	49	6	13
KSA25 214	19,76	4,00	3.800	2.600	2.130	-	1.230		250	138	49	5	11
KSA30 211	9,88	2,00	4.050	2.740	2.216	-	3.032		300	144	44	11	23
KSA30 212	13,16	2,60	5.088	3.442	2.676	-	2.894		300	144	44	10	22
KSA30 214	19,76	4,00	6.446	4.400	3.486	-	2.666		300	144	44	10	20
KSA30 312	19,74	3,90	7.632	5.163	4.014	-	4.341	3	300	216	46	10	22
KSA30 314	29,64	6,00	9.669	6.600	5.229	-	3.999		300	216	46	10	20
KSA35 112	9,15	1,85	4.100	2.770	2.156	-	2.653	1	350	165	44	12	26
KSA35 114	13,72	2,75	5.225	3.555	2.867	-	2.430		350	165	44	11	23
KSA40 112	9,15	1,85	4.530	3.035	2.356	-	3.200		400	160	51	13	27
KSA40 114	13,72	2,75	5.783	3.925	3.140	-	2.889		400	160	51	11	24
KSA35 212	18,29	3,70	8.200	5.540	4.312	-	5.306	2	350	330	47	12	26
KSA35 214	27,43	5,50	10.450	7.110	5.734	-	4.860		350	330	47	11	23
KSA40 212	18,29	3,70	9.060	6.070	4.712	-	6.400		400	320	54	13	27
KSA40 214	27,43	5,50	11.566	7.850	6.280	-	5.778		400	320	54	11	24
KSA35 312	27,44	5,55	12.300	8.310	6.468	-	7.959	3	350	495	49	12	26
KSA35 314	41,15	8,25	15.675	10.665	8.601	-	7.290		350	495	49	11	23
KSA40 312	27,44	5,55	13.590	9.105	7.068	-	9.600		400	480	56	13	27
KSA40 314	41,15	8,25	17.349	11.775	9.420	-	8.667		400	480	56	11	24
KSA35 412	36,58	7,40	16.400	11.080	8.624	-	10.612	4	350	660	50	12	26
KSA35 414	54,86	11,00	20.900	14.220	11.468	-	9.720		350	660	50	11	23
KSA40 412	36,58	7,40	18.120	12.140	9.424	-	12.800		400	640	57	13	27
KSA40 414	54,86	11,00	23.132	15.700	12.560	-	11.556		400	640	57	11	24
KSA45 212	31,70	6,40	14.671	9.880	7.800	-	9.521	2	450	490	50	15	31
KSA45 214	47,54	9,60	19.225	12.970	9.970	-	8.865		450	490	50	14	29
KSA50 212	31,70	6,40	18.020	12.000	9.510	-	13.800		500	1.180	59	19	41
KSA50 214	47,54	9,60	23.210	15.600	12.490	-	12.220		500	1.180	59	17	36
KSA45 312	47,55	9,60	22.007	14.820	11.700	-	14.282	3	450	735	52	15	31
KSA45 314	71,31	14,40	28.838	19.455	14.955	-	13.298		450	735	52	14	29
KSA50 312	47,55	9,60	27.190	18.150	14.350	-	20.700		500	1.770	61	19	41
KSA50 314	71,31	14,40	35.020	23.580	18.340	-	18.330		500	1.770	61	17	36
KSA45 412	63,40	12,80	29.342	19.760	15.600	-	19.042	4	450	980	53	15	31
KSA45 414	95,08	19,20	38.450	25.940	19.940	-	17.730		450	980	53	14	29
KSA50 412	63,40	12,80	35.760	24.040	18.960	-	27.610		500	2.360	62	19	41
KSA50 414	95,08	19,20	46.940	31.560	24.890	-	24.440		500	2.360	62	17	36



Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions									Bağlantılar Connections		Enerji Sınıfı Energy Consumption
	B1	B2		L	H	W	LC	H1	H2	W1	W2	W3	Giriş Input	Çıkış Output	
	Batarya Coil	Batarya Coil	Tava D.Tray												
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")	
KSA25 111	3x250	3x250	2x250	77	51	47	48	46	46	39	36	29	1/2	5/8	E
KSA25 112	4x250	4x250	2x250	77	51	47	48	46	46	39	36	29	1/2	5/8	D
KSA25 114	6x250	6x250	2x250	77	51	57	48	46	46	46	43	36	1/2	19	D
KSA30 111	3x250	3x250	2x250	77	51	47	48	46	46	39	36	29	1/2	5/8	D
KSA30 112	4x250	4x250	2x250	77	51	47	48	46	46	39	36	29	1/2	5/8	C
KSA30 114	6x250	6x250	2x250	77	51	57	48	46	46	46	43	36	1/2	19	B
KSA25 212	4x500	4x500	2x500	121	51	47	93	46	46	39	36	29	1/2	22	D
KSA25 214	6x500	6x500	2x500	121	51	57	93	46	46	46	43	36	1/2	28	D
KSA30 211	3x500	3x500	2x500	121	51	47	93	46	46	39	36	29	1/2	19	D
KSA30 212	4x500	4x500	2x500	121	51	47	93	46	46	39	36	29	1/2	19	C
KSA30 214	6x500	6x500	2x500	121	51	57	93	46	46	46	43	36	1/2	22	B
KSA30 312	4x750	4x750	2x750	166	51	47	138	46	46	39	36	29	1/2	22	C
KSA30 314	6x750	6x750	2x750	166	51	57	138	46	46	46	43	36	22	22	B
KSA35 112	5x300	5x300	2x300	86	61	52	53	55	55	44	41	34	1/2	19	D
KSA35 114	7x300	7x300	2x300	86	61	62	53	55	55	51	48	41	1/2	22	D
KSA40 112	5x300	5x300	2x300	86	61	52	53	55	55	44	41	34	1/2	19	D
KSA40 114	7x300	7x300	2x300	86	61	62	53	55	55	51	48	41	1/2	22	C
KSA35 212	5x550	5x550	2x550	136	61	52	103	55	55	44	41	34	1/2	28	D
KSA35 214	7x550	7x550	2x550	136	61	62	103	55	55	51	48	41	22	28	D
KSA40 212	5x550	5x550	2x550	136	61	52	103	55	55	44	41	34	1/2	22	D
KSA40 214	7x550	7x550	2x550	136	61	62	103	55	55	51	48	41	22	28	C
KSA35 312	5x800	5x800	2x800	186	61	52	153	58	55	49	45	34	22	22	D
KSA35 314	7x800	7x800	2x800	186	61	62	153	58	55	55	51	41	22	28	D
KSA40 312	5x800	5x800	2x800	186	61	52	153	58	55	49	45	34	22	22	D
KSA40 314	7x800	7x800	2x800	186	61	62	153	58	55	55	51	41	22	35	C
KSA35 412	5x1050	5x1050	2x1050	237	61	52	100	58	55	49	45	34	22	35	D
KSA35 414	7x1050	7x1050	2x1050	237	61	62	100	58	55	55	51	41	22	42	D
KSA40 412	5x1050	5x1050	2x1050	237	61	52	100	58	55	49	45	34	22	42	D
KSA40 414	7x1050	7x1050	2x1050	237	61	62	100	58	55	55	51	41	22	42	C
KSA45 212	6x700	6x700	2x700	166	80	52	133	75	72	49	45	34	22	35	D
KSA45 214	8x700	8x700	2x700	166	80	62	133	75	72	55	51	41	22	42	C
KSA50 212	6x700	6x700	2x700	166	80	52	133	75	72	49	45	34	22	35	E
KSA50 214	8x700	8x700	2x700	166	80	62	133	75	72	55	51	41	22	35	E
KSA45 312	6x1050	6x1050	2x1050	237	80	52	198	75	72	49	45	34	22	42	D
KSA45 314	8x1050	8x1050	2x1050	237	80	62	198	75	72	55	51	41	22	42	C
KSA50 312	6x1050	6x1050	2x1050	237	80	52	198	75	72	49	45	34	22	35	E
KSA50 314	8x1050	8x1050	2x1050	237	80	62	198	75	72	55	51	41	28	42	E
KSA45 412	6X1350	6X1350	2X1350	302	80	52	100	75	72	49	45	34	22	42	D
KSA45 414	8X1350	8X1350	2X1350	302	80	62	100	75	72	55	51	41	22	42	C
KSA50 412	6X1350	6X1350	2X1350	302	80	52	100	75	72	49	45	34	28	42	E
KSA50 414	8X1350	8X1350	2X1350	302	80	62	100	75	72	55	51	41	28	64	E

MSD Serisi
MSD Serie

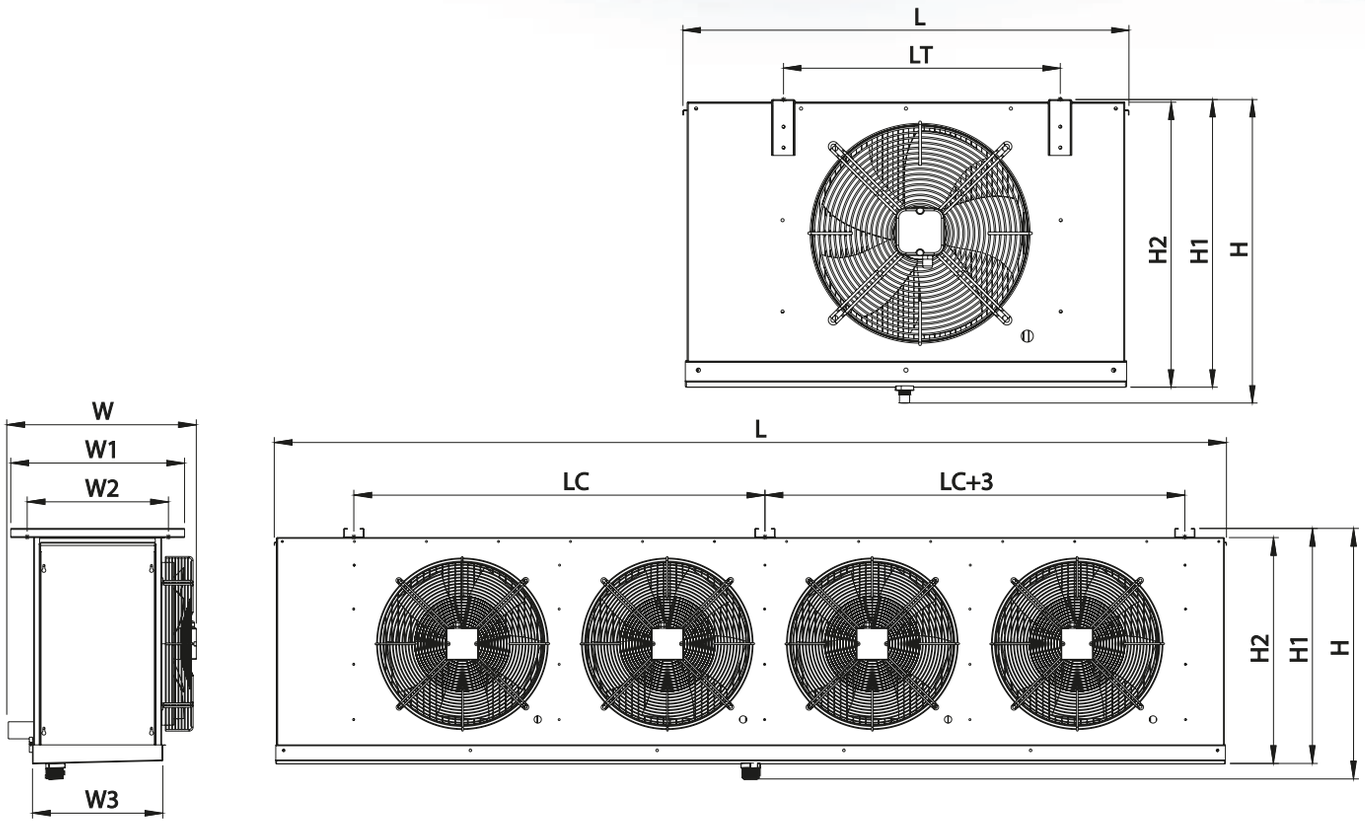
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **230V AC 1300-1400 d/d-rpm**					**Üfleme Mesafesi** Air Throw	
			SC1 Te= 0°C TO= +10°C	**SC2** Te= -8°C TO= 0°C	**SC3** Te= -25°C TO= -18°C	**SC4** Te= -31°C TO= -25°C	**Hava Debisi** Air Flow	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Ses Basınç Seviyesi** Sound Pressure Level	**Yönlendiricisiz** Without Streamer	**Akış Yönlendiricili** With Streamer
	(m^2)	(dm^3)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSD25 111	9,13	1,55	1.973	1.348	-	-	684	1	250	69	46	6	13
MSD25 112	12,17	2,06	2.100	1.443	-	-	619		250	69	46	5	11
MSD30 111	9,13	1,55	3.086	2.075	-	-	1.436		300	72	41	10	22
MSD30 112	12,17	2,06	3.654	2.500	-	-	1.354		300	72	41	10	21
MSD30 114	18,26	3,10	4.224	2.900	-	-	1.220		300	72	41	9	19
MSD25 211	18,26	3,10	4.290	2.895	-	-	1.368	2	250	138	49	6	13
MSD25 212	24,34	4,12	4.768	3.160	-	-	1.238		250	138	49	5	11
MSD30 211	18,26	3,10	6.172	4.150	-	-	2.872		300	144	44	10	22
MSD30 212	24,34	4,12	7.308	5.000	-	-	2.708		300	144	44	10	21
MSD30 311	27,39	4,65	9.274	6.304	-	-	4.308	3	300	216	46	10	22
MSD30 312	36,51	6,18	10.962	7.500	-	-	4.062		300	216	46	10	21
MSD30 314	54,78	9,30	12.672	8.700	-	-	3.660		300	216	46	9	19



Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										Bağlantılar Connections		Enerji Sınıfı Energy Consumption
	B1	B2														
	Batarya Coil	Batarya Coil	Tava D.Tray	L	H	W	LT	LC	H1	H2	W1	W2	W3	Giriş Input	Çıkış Output	
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")	
MSD25 111	3x250	3x250	2x250	77	51	47	48	-	46	46	39	36	29	1/2	1/2	
MSD25 112	4x250	4x250	2x250	77	51	47	48	-	46	46	39	36	29	1/2	22	D
MSD30 111	3x250	3x250	2x250	77	51	47	48	-	46	46	39	36	29	1/2	1/2	C
MSD30 112	4x250	4x250	2x250	77	51	47	48	-	46	46	39	36	29	1/2	19	C
MSD30 114	6x250	6x250	2x250	77	51	57	48	-	46	46	46	43	36	1/2	22	B
MSD25 211	3x500	3x500	2x500	121	51	47	-	93	46	46	39	36	29	1/2	22	D
MSD25 212	4x500	4x500	2x500	121	51	47	-	93	46	46	39	36	29	1/2	22	D
MSD30 211	3x500	3x500	2x500	121	51	47	-	93	46	46	39	36	29	1/2	22	C
MSD30 212	4x500	4x500	2x500	121	51	47	-	93	46	46	39	36	29	1/2	22	C
MSD30 311	3x750	3x750	2x750	166	51	47	-	-	46	46	39	36	29	22	28	C
MSD30 312	4x750	4x750	2x750	166	51	47	-	-	46	46	39	36	29	22	28	C
MSD30 314	6x750	6x750	2x750	166	51	57	-	-	46	46	46	43	36	22	28	B

MSA Serisi
MSA Serie

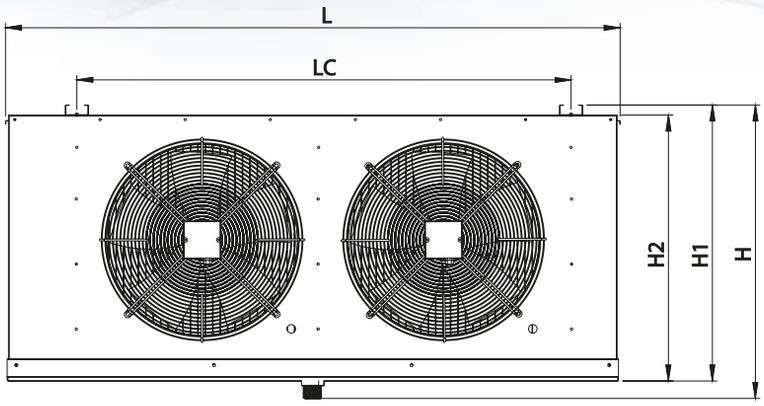
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

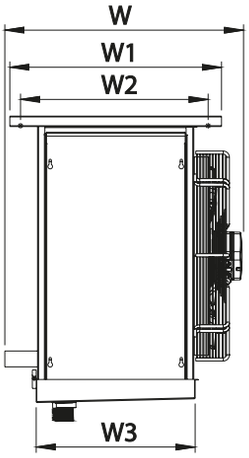
Batarya Özellikleri
Heat Exchanger Specifications

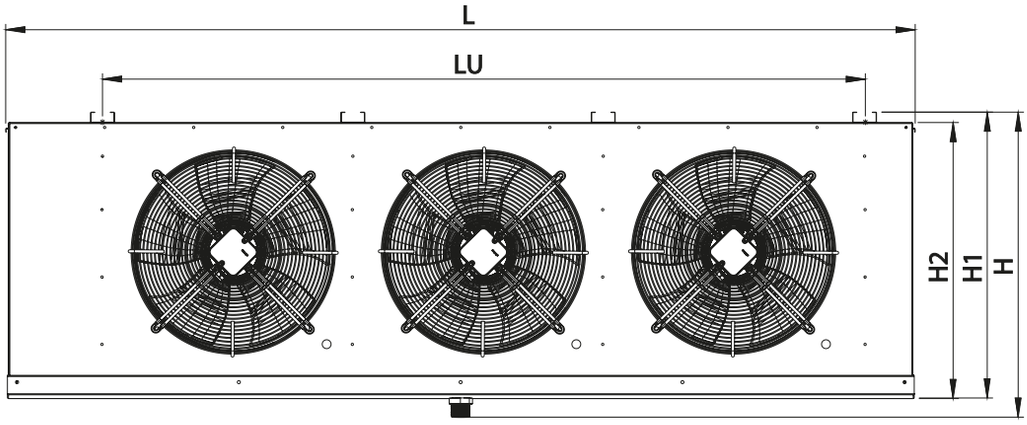
Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Fanlar Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1 Te= 0°C T0= +10°C	SC2 Te= -8°C T0= 0°C	SC3 Te= -25°C T0= -18°C	SC4 Te= -31°C T0= -25°C	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSA25 111	6,27	1,55	1.700	1.160	920	-	750	1	250	69	46	6	14
MSA25 112	8,36	2,06	1.970	1.340	1.040	-	670		250	69	46	6	12
MSA30 111	6,27	1,55	2.522	1.694	1.252	-	1.496		300	72	41	11	23
MSA30 112	8,36	2,06	3.039	2.057	1.652	-	1.425		300	72	41	10	22
MSA30 114	12,54	3,10	3.751	2.562	2.000	-	1.305		300	72	41	9	20
MSA25 211	12,53	3,10	3.400	2.320	1.840	-	1.500	2	250	138	49	6	14
MSA25 212	16,71	4,13	3.950	2.680	2.090	-	1.350		250	138	49	6	12
MSA30 211	12,53	3,10	5.044	3.388	2.504	-	2.992		300	144	44	11	23
MSA30 212	16,71	4,12	6.098	4.134	3.348	-	2.850		300	144	44	10	22
MSA30 311	18,80	4,65	7.566	5.082	3.756	-	4.488	3	300	216	46	11	23
MSA30 312	25,07	6,18	9.117	6.171	4.956	-	4.275		300	216	46	10	22
MSA30 314	37,61	9,30	11.253	7.686	6.000	-	3.915		300	216	46	9	20
MSA35 111	8,36	2,05	3.961	2.680	2.135	-	2.725	1	350	165	44	12	26
MSA35 112	11,15	2,73	4.764	3.243	2.610	-	2.582		350	165	44	12	25
MSA35 114	16,72	4,10	6.067	4.131	3.233	-	2.345		350	165	44	11	23
MSA40 111	8,36	2,05	4.375	2.950	2.333	-	3.312		400	160	51	13	28
MSA40 112	11,15	2,73	5.263	3.574	2.900	-	3.100		400	160	51	12	26
MSA40 114	16,72	4,10	6.660	4.560	3.675	-	2.772		400	160	51	11	23
MSA35 211	16,72	4,10	7.922	5.360	4.270	-	5.450	2	350	330	47	12	26
MSA35 212	22,29	5,46	9.845	6.642	5.220	-	5.164		350	330	47	12	25
MSA35 214	33,44	8,20	12.134	8.262	6.466	-	4.690		350	330	47	11	23
MSA40 211	16,72	4,10	8.750	5.900	4.666	-	6.624		400	320	54	13	28
MSA40 212	22,29	5,46	10.850	7.241	5.800	-	6.200		400	320	54	12	26
MSA40 214	33,44	8,20	13.320	9.120	7.350	-	5.544		400	320	54	11	23
MSA35 311	25,08	6,15	11.883	8.040	6.405	-	8.175	3	350	495	49	12	26
MSA35 312	33,44	8,19	14.292	9.729	7.830	-	7.746		350	495	49	12	25
MSA35 314	50,16	12,30	18.201	12.393	9.699	-	7.035		350	495	49	11	23
MSA40 311	25,08	6,15	13.125	8.850	6.999	-	9.936		400	480	56	13	28
MSA40 312	33,44	8,19	15.789	10.722	8.700	-	9.300		400	480	56	12	26
MSA40 314	50,16	12,30	19.980	13.680	11.025	-	8.316		400	480	56	11	23







Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										Bağlantılar Connections		Enerji Sınıfı Energy Consumption
	B1	B2														
	Batarya Coil	Batarya Coil	Tava D.Tray	L	H	W	LC	LU	H1	H2	W1	W2	W3	Giriş Input	Çıkış Output	
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")	
MSA25 111	3x250	3x250	2x250	77	51	47	-	-	46	46	39	36	29	1/2	1/2	D
MSA25 112	4x250	4x250	2x250	77	51	47	-	-	46	46	39	36	29	16	19	D
MSA30 111	3x250	3x250	2x250	77	51	47	-	-	46	46	39	36	29	1/2	1/2	C
MSA30 112	4x250	4x250	2x250	77	51	47	-	-	46	46	39	36	29	16	19	C
MSA30 114	6x250	6x250	2x250	77	51	57	-	-	46	46	46	43	36	16	19	B
MSA25 211	3x500	3x500	2x500	121	51	47	93	-	46	46	39	36	29	16	22	D
MSA25 212	4x500	4x500	2x500	121	51	47	93	-	46	46	39	36	29	16	19	D
MSA30 211	3x500	3x500	2x500	121	51	47	93	-	46	46	39	36	29	16	22	C
MSA30 212	4x500	4x500	2x500	121	51	47	93	-	46	46	39	36	29	16	22	C
MSA30 311	3x750	3x750	2x750	166	51	47	-	138	46	46	39	36	29	16	22	C
MSA30 312	4x750	4x750	2x750	166	51	47	-	138	46	46	39	36	29	16	22	C
MSA30 314	6x750	6x750	2x750	166	51	57	-	138	46	46	46	43	36	22	28	B
MSA35 111	4x300	4x300	2x300	86	61	56	-	-	55	55	44	41	34	16	19	D
MSA35 112	5x300	5x300	2x300	86	61	56	-	-	55	55	44	41	34	16	19	D
MSA35 114	7x300	7x300	2x300	86	61	62	-	-	55	55	51	48	41	16	22	C
MSA40 111	4x300	4x300	2x300	86	61	56	-	-	55	55	44	41	34	16	19	D
MSA40 112	5x300	5x300	2x300	86	61	56	-	-	55	55	44	41	34	16	19	C
MSA40 114	7x300	7x300	2x300	86	61	62	-	-	55	55	51	48	41	16	22	C
MSA35 211	4x550	4x550	2x550	136	61	56	103	-	55	55	44	41	34	16	22	D
MSA35 212	5x550	5x550	2x550	136	61	56	103	-	55	55	44	41	34	22	22	D
MSA35 214	7x550	7x550	2x550	136	61	62	103	-	55	55	51	48	41	22	28	C
MSA40 211	4x550	4x550	2x550	136	61	56	103	-	55	55	44	41	34	22	22	D
MSA40 212	5x550	5x550	2x550	136	61	56	103	-	55	55	44	41	34	22	22	C
MSA40 214	7x550	7x550	2x550	136	61	62	103	-	55	55	51	48	41	22	28	C
MSA35 311	4x800	4x800	2x800	186	61	56	-	153	58	55	49	45	34	22	28	D
MSA35 312	5x800	5x800	2x800	186	61	56	-	153	58	55	49	45	34	22	28	D
MSA35 314	7x800	7x800	2x800	186	61	62	-	153	58	55	55	51	41	22	35	C
MSA40 311	4x800	4x800	2x800	186	61	56	-	153	58	55	49	45	34	22	28	D
MSA40 312	5x800	5x800	2x800	186	61	56	-	153	58	55	49	45	34	22	35	C
MSA40 314	7x800	7x800	2x800	186	61	62	-	153	58	55	55	51	41	22	35	C

MSA Serisi
MSA Serie

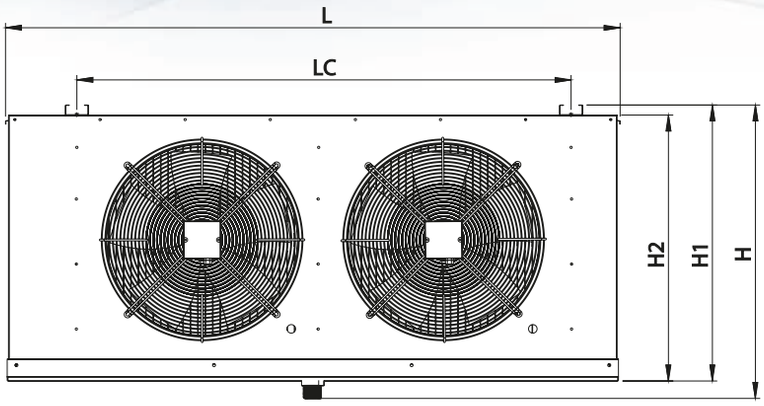
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

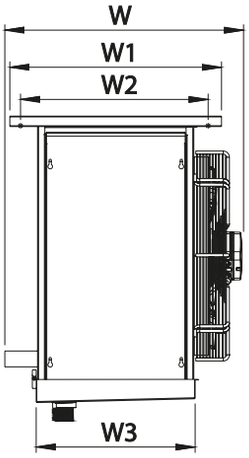
Batarya Özellikleri
Heat Exchanger Specifications

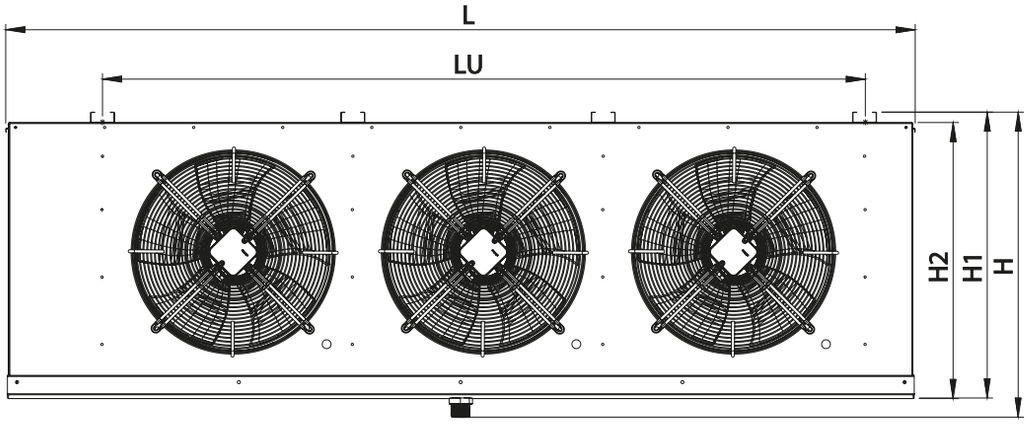
Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 6 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **230V AC 1300-1400 d/d-rpm**					**Üfleme Mesafesi** Air Throw	
			SC1 Te= 0°C TO= +10°C	**SC2** Te= -8°C TO= 0°C	**SC3** Te= -25°C TO= -18°C	**SC4** Te= -31°C TO= -25°C	**Hava Debisi** Air Flow	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Ses Basınç Seviyesi** Sound Pressure Level	**Yönlendiricisiz** Without Streamer	**Akış Yönlendiricili** With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSA45 211	28,98	7,05	14.188	9.580	7.500	-	9.760	2	450	490	50	15	32
MSA45 212	38,63	9,40	17.436	11.806	9.390	-	9.350		450	490	50	14	31
MSA45 214	57,95	14,10	21.927	15.000	12.120	-	8.640		450	490	50	13	29
MSA50 211	28,98	7,05	16.840	11.420	8.910	-	14.340		500	1.180	59	20	43
MSA50 212	38,63	9,40	20.200	13.700	10.700	-	13.280		500	1.180	59	18	39
MSA50 214	57,95	14,10	26.858	17.902	14.280	-	11.720		500	1.180	59	16	35
MSA45 312	57,95	14,10	26.154	17.709	14.085	-	14.025	3	450	735	52	14	31
MSA45 314	86,93	21,15	32.891	22.500	18.180	-	12.960		450	735	52	13	29
MSA50 312	57,95	14,10	30.310	20.560	16.050	-	19.920		500	1.770	61	18	39
MSA50 314	86,93	21,15	39.800	27.000	20.950	-	17.580		500	1.770	61	16	35
MSA45 412	77,27	18,80	34.961	23.689	18.927	-	18.700	4	450	980	53	14	31
MSA45 414	115,90	28,20	43.854	30.000	24.240	-	17.280		450	980	53	13	29
MSA50 412	77,27	18,80	40.410	27.410	21.400	-	26.560		500	2.360	62	18	39
MSA50 414	115,90	28,20	53.550	36.400	28.200	-	23.450		500	2.360	62	16	35
							Fanlar / Fans **400V AC 880 d/d-rpm**						
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSA63 212	92,86	22,60	38.238	25.860	-	-	19.120	2	630	1.220	70	20	43
MSA63 214	139,30	33,90	48.162	32.696	-	-	17.907		630	1.220	70	19	40
MSA63 312	139,29	33,90	57.357	38.790	-	-	28.680	3	630	1.830	72	20	43
MSA63 314	208,95	50,85	72.243	49.044	-	-	26.861		630	1.830	72	19	40
MSA63 412	185,72	45,20	76.476	51.720	-	-	38.240	4	630	2.440	73	20	43
MSA63 414	278,60	67,80	96.324	65.392	-	-	35.814		630	2.440	73	19	40
MSA63 512	232,15	56,50	95.595	64.650	-	-	47.800	5	630	3.050	74	20	43
MSA63 514	348,25	84,75	120.405	81.740	-	-	44.768		630	3.050	74	19	40







Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										Bağlantılar Connections		Enerji Sınıfı Energy Consumption
	B1	B2														
	Batarya Coil	Batarya Coil	Tava D.Tray	L	H	W	LC	LU	H1	H2	W1	W2	W3	Giriş Input	Çıkış Output	
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")	
MSA45 211	5x700	5x700	2x700	166	80	56	133	-	75	72	49	45	34	22	28	D
MSA45 212	6x700	6x700	2x700	166	80	56	133	-	75	72	49	45	41	22	35	C
MSA45 214	8x700	8x700	2x700	166	80	62	133	-	75	72	55	51	41	22	35	B
MSA50 211	5x700	5x700	2x700	166	80	56	133	-	75	72	49	45	34	22	28	E
MSA50 212	6x700	6x700	2x700	166	80	56	133	-	75	72	49	45	34	22	35	E
MSA50 214	8x700	8x700	2x700	166	80	62	133	-	75	72	55	51	41	22	35	D
MSA45 312	6x1050	6x1050	2x1050	237	80	56	-	198	75	72	49	45	34	22	35	C
MSA45 314	8x1050	8x1050	2x1050	237	80	62	-	198	75	72	55	51	41	28	42	B
MSA50 312	6x1050	6x1050	2x1050	237	80	56	-	198	75	72	49	45	34	22	35	E
MSA50 314	8x1050	8x1050	2x1050	237	80	62	-	198	75	72	55	51	41	28	42	D
MSA45 412	6X1350	6X1350	2X1350	302	80	56	130	-	75	72	49	45	34	22	42	C
MSA45 414	8X1350	8X1350	2X1350	302	80	62	130	-	75	72	55	51	41	28	42	B
MSA50 412	6X1350	6X1350	2X1350	302	80	56	130	-	75	72	49	45	34	28	42	E
MSA50 414	8X1350	8X1350	2X1350	302	80	62	130	-	75	72	55	51	41	28	42	D
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")	
MSA63 212	8X1050	8X1050	2X1050	242	118	72	203	-	113	108	70	65	41	28	54	D
MSA63 214	10X1050	10X1050	2X1050	242	118	81	203	-	113	108	78	73	49	28	54	C
MSA63 312	8X1550	8X1550	2X1550	342	118	72	-	303	113	108	70	65	41	35	64	D
MSA63 314	10X1550	10X1550	2X1550	342	118	81	-	303	113	108	78	73	49	35	64	C
MSA63 412	8X2050	8X2050	2X2050	442	118	72	200	-	113	108	70	65	41	35	64	D
MSA63 414	10X2050	10X2050	2X2050	442	118	81	200	-	113	108	78	73	49	35	64	C
MSA63 512	8X2550	8X2550	2X2550	542	118	72	-	-	113	108	70	65	41	35	64	D
MSA63 514	10X2550	10X2550	2X2550	542	118	81	-	-	113	108	78	73	49	35	64	C

MSS Serisi
MSS Serie

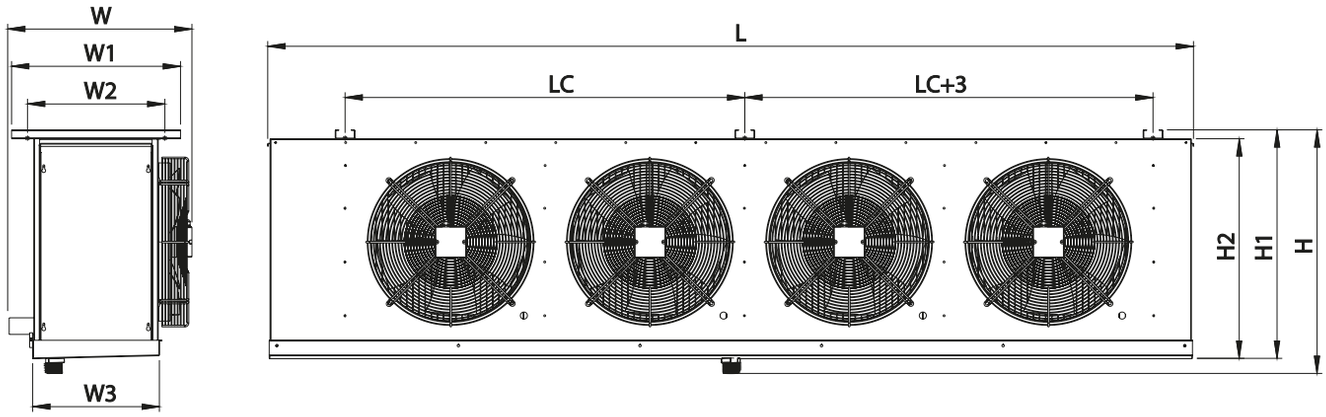
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Fanlar Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1 Te= 0°C TO= +10°C	SC2 Te= -8°C TO= 0°C	SC3 Te= -25°C TO= -18°C	SC4 Te= -31°C TO= -25°C	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSS30 111	4,84	1,55	2.144	1.444	1.104	871	1.532	1	300	72	41	11	23
MSS30 112	6,45	2,07	2.601	1.721	1.388	1.121	1.466		300	72	41	10	22
MSS30 114	9,67	3,10	3.350	2.290	1.791	1.415	1.354		300	72	41	10	21
MSS30 211	9,67	3,10	4.288	2.888	2.208	1.742	3.064	2	300	144	44	11	23
MSS30 212	12,90	4,13	5.225	3.461	2.776	2.242	2.932		300	144	44	10	22
MSS30 214	19,35	6,20	6.700	4.580	3.582	2.830	2.708		300	144	44	10	21
MSS30 311	14,51	4,65	6.432	4.332	3.312	2.613	4.596	3	300	216	46	11	23
MSS30 312	19,35	6,20	7.803	5.163	4.164	3.363	4.398		300	216	46	10	22
MSS30 314	29,02	9,30	10.050	6.870	5.373	4.245	4.062		300	216	46	10	21
MSS35 111	6,45	2,05	3.300	2.250	1.810	1.460	2.790	1	350	165	44	13	27
MSS35 112	8,60	2,73	4.090	2.774	2.080	1.700	2.600		350	165	44	12	25
MSS35 114	12,90	4,10	5.250	3.500	2.840	2.300	2.400		350	165	44	11	23
MSS40 111	6,45	2,05	3.671	2.478	1.984	1.572	3.416		400	160	51	13	29
MSS40 112	8,60	2,73	4.471	2.993	2.420	1.937	3.211		400	160	51	13	27
MSS40 114	12,90	4,10	5.840	3.930	3.173	2.550	2.900		400	160	51	11	24
MSS35 211	12,90	4,10	6.600	4.500	3.620	2.920	5.580	2	350	330	47	13	27
MSS35 212	17,19	5,46	8.277	5.614	4.240	3.528	5.200		350	330	47	12	25
MSS35 214	25,79	8,20	10.500	7.000	5.680	4.600	4.800		350	330	47	11	23
MSS40 211	12,90	4,10	7.342	4.956	3.968	3.144	6.832		400	320	54	13	29
MSS40 212	17,19	5,46	8.961	6.084	4.588	3.874	6.422		400	320	54	13	27
MSS40 214	25,79	8,20	11.680	7.860	6.346	5.100	5.800		400	320	54	11	24
MSS35 311	19,35	6,15	9.900	6.750	5.430	4.380	8.370	3	350	495	49	13	27
MSS35 312	25,79	8,19	12.270	8.322	6.240	5.100	7.800		350	495	49	12	25
MSS35 314	38,69	12,30	15.750	10.500	8.520	6.900	7.200		350	495	49	11	23
MSS40 311	19,35	6,15	11.013	7.434	5.952	4.716	10.248		400	480	56	13	29
MSS40 312	25,79	8,19	13.413	8.979	7.260	5.811	9.633		400	480	56	13	27
MSS40 314	38,69	12,30	17.520	11.790	9.519	7.650	8.700		400	480	56	11	24
MSS45 211	22,35	7,05	11.830	8.020	6.400	5.157	9.956	2	450	490	50	15	33
MSS45 212	29,80	9,40	14.608	9.842	7.610	6.420	9.590		450	490	50	15	32
MSS45 214	44,71	14,10	19.191	13.111	10.550	8.480	8.940		450	490	50	14	30
MSS45 215	59,61	18,80	22.300	15.087	12.300	9.980	8.400		450	490	50	13	28
MSS50 211	22,35	7,05	14.290	9.680	7.640	6.170	14.790		500	1.180	59	21	44
MSS50 212	29,80	9,40	17.291	11.706	9.156	7.672	13.900		500	1.180	59	19	41
MSS50 214	44,71	14,10	23.180	15.740	12.640	10.180	12.380		500	1.180	59	17	37
MSS50 215	59,61	18,80	27.730	18.800	14.830	11.970	11.130		500	1.180	59	15	33



Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions									Bağlantılar Connections		Enerji Sınıfı Energy Consumption
	B1	B2													
	Batarya Coil	Batarya Coil	Tava D.Tray	L	H	W	LC	H1	H2	W1	W2	W3	Giriş Input	Çıkış Output	
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")	
MSS30 111	3x250	3x250	2x250	77	51	47	48	46	46	39	36	29	1/2	1/2	C
MSS30 112	4x250	4x250	2x250	77	51	47	48	46	46	39	36	29	1/2	19	C
MSS30 114	6x250	6x250	2x250	77	51	57	48	46	46	46	43	36	1/2	19	B
MSS30 211	3x500	3x500	2x500	121	51	47	93	46	46	39	36	29	16	22	C
MSS30 212	4x500	4x500	2x500	121	51	47	93	46	46	39	36	29	16	22	C
MSS30 214	6x500	6x500	2x500	121	51	57	93	46	46	46	43	36	16	22	B
MSS30 311	3x750	3x750	2x750	166	51	47	138	46	46	39	36	29	16	22	C
MSS30 312	4x750	4x750	2x750	166	51	47	138	46	46	39	36	29	16	22	C
MSS30 314	6x750	6x750	2x750	166	51	57	138	46	46	46	43	36	16	28	B
MSS35 111	4x300	4x300	2x300	86	61	56	53	55	55	44	41	34	16	19	D
MSS35 112	5x300	5x300	2x300	86	61	56	53	55	55	44	41	34	16	19	D
MSS35 114	7x300	7x300	2x300	86	61	56	53	55	55	51	48	41	16	22	C
MSS40 111	4x300	4x300	2x300	86	61	56	53	55	55	44	41	34	16	19	D
MSS40 112	5x300	5x300	2x300	86	61	56	53	55	55	44	41	34	16	19	D
MSS40 114	7x300	7x300	2x300	86	61	62	53	55	55	51	48	41	16	22	C
MSS35 211	4x550	4x550	2x550	136	61	56	103	55	55	44	41	34	16	22	D
MSS35 212	5x550	5x550	2x550	136	61	56	103	55	55	44	41	34	16	22	D
MSS35 214	7x550	7x550	2x550	136	61	62	103	55	55	51	48	41	16	28	C
MSS40 211	4x550	4x550	2x550	136	61	56	103	55	55	44	41	34	16	22	D
MSS40 212	5x550	5x550	2x550	136	61	56	103	55	55	44	41	34	16	22	C
MSS40 214	7x550	7x550	2x550	136	61	62	103	55	55	51	48	41	16	28	C
MSS35 311	4x800	4x800	2x800	186	61	56	153	58	55	44	45	34	16	28	D
MSS35 312	5x800	5x800	2x800	186	61	56	153	58	55	44	45	34	16	28	D
MSS35 314	7x800	7x800	2x800	186	61	62	153	58	55	51	51	41	22	35	C
MSS40 311	4x800	4x800	2x800	186	61	56	153	58	55	44	45	34	16	28	D
MSS40 312	5x800	5x800	2x800	186	61	56	153	58	55	44	45	34	16	35	D
MSS40 314	7x800	7x800	2x800	186	61	62	153	58	55	51	51	41	22	35	C
MSS45 211	5x700	5x700	2x700	166	80	56	133	75	72	49	45	34	16	28	D
MSS45 212	6x700	6x700	2x700	166	80	56	133	75	72	49	45	34	16	35	C
MSS45 214	8x700	8x700	2x700	166	80	62	133	75	72	55	51	41	22	35	B
MSS45 215	9x700	9x700	2x700	166	80	71	133	75	72	63	59	49	22	54	B
MSS50 211	5x700	5x700	2x700	166	80	56	133	75	72	49	45	34	16	28	E
MSS50 212	6x700	6x700	2x700	166	80	56	133	75	72	49	45	34	22	35	E
MSS50 214	8x700	8x700	2x700	166	80	62	133	75	72	55	51	41	22	35	D
MSS50 215	9x700	9x700	2x700	166	80	71	133	75	72	63	59	49	22	54	D

MSS Serisi
MSS Serie

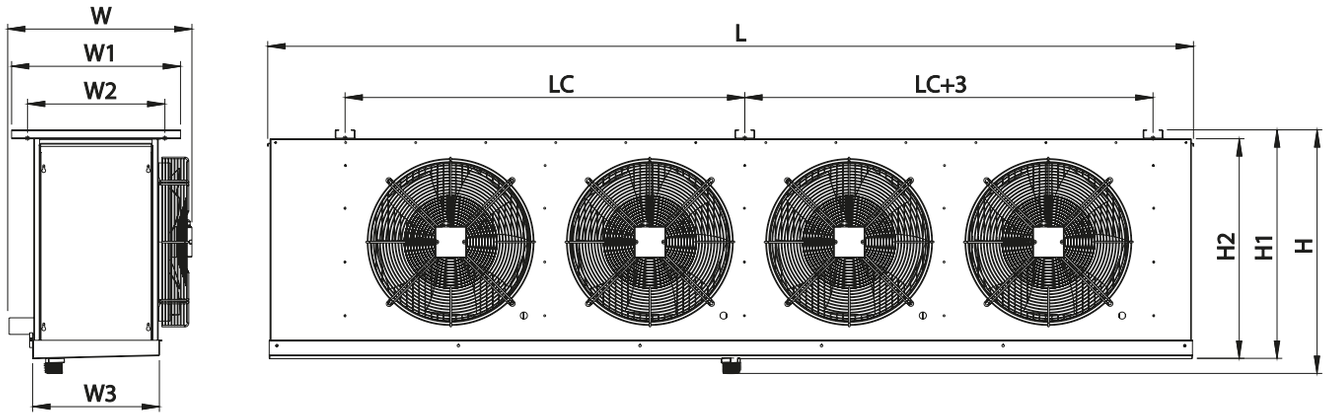
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 8 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **230V AC 1300-1400 d/d-rpm**					**Üfleme Mesafesi** Air Throw	
			SC1 Te= 0°C TO= +10°C	**SC2** Te= -8°C TO= 0°C	**SC3** Te= -25°C TO= -18°C	**SC4** Te= -31°C TO= -25°C	**Hava Debisi** Air Flow	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Ses Basınç Seviyesi** Sound Pressure Level	**Yönlendiricisiz** Without Streamer	**Akış Yönlendiricili** With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSS45 311	33,53	10,58	17.745	12.030	9.600	7.736	14.934	3	450	735	52	15	33
MSS45 312	44,71	14,10	21.912	14.763	11.415	9.630	14.385		450	735	52	15	32
MSS45 314	67,06	21,15	28.787	19.667	15.825	12.720	13.410		450	735	52	14	30
MSS45 315	89,41	28,20	33.450	22.631	18.450	14.970	12.600		450	735	52	13	28
MSS50 311	33,53	10,57	21.440	14.530	11.470	9.250	22.190		500	1.770	61	21	44
MSS50 312	44,71	14,10	26.410	17.463	14.130	11.400	20.860		500	1.770	61	19	41
MSS50 314	67,06	21,15	35.100	24.000	18.850	15.120	18.570		500	1.770	61	17	37
MSS50 315	89,41	28,20	41.600	28.200	22.250	17.950	16.690		500	1.770	61	15	33
MSS45 411	44,71	14,10	23.660	16.040	12.800	10.314	19.912	4	450	980	53	15	33
MSS45 412	59,61	18,80	29.216	19.684	15.220	12.840	19.180		450	980	53	15	32
MSS45 414	89,41	28,20	38.382	26.222	21.100	16.960	17.880		450	980	53	14	30
MSS45 415	119,21	37,60	45.835	31.523	24.600	19.960	16.800		450	980	53	13	28
MSS50 411	44,71	14,10	28.590	19.370	15.290	12.340	29.590		500	2.360	62	21	44
MSS50 412	59,61	18,80	35.220	23.870	18.840	15.200	27.810		500	2.360	62	19	41
MSS50 414	89,41	28,20	47.200	32.000	25.200	20.380	24.760		500	2.360	62	17	37
MSS50 415	119,21	37,60	52.697	36.627	29.670	23.940	22.260		500	2.360	62	15	33
							Fanlar / Fans **400V AC 880 d/d-rpm**						
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSS63 212	71,64	22,60	32.700	22.071	17.643	14.085	19.495	2	630	1.220	70	20	43
MSS63 214	107,46	33,90	42.582	28.916	23.142	18.475	18.424		630	1.220	70	19	41
MSS63 312	107,46	33,90	49.050	33.107	26.465	21.128	29.243	3	630	1.830	72	20	43
MSS63 314	161,19	50,85	63.873	43.374	34.713	27.713	27.636		630	1.830	72	19	41
MSS63 412	143,28	45,20	65.400	44.142	35.286	28.170	38.990	4	630	2.440	73	20	43
MSS63 414	214,92	67,80	86.783	59.351	46.284	36.950	36.848		630	2.440	73	19	41
MSS63 512	179,10	56,50	81.750	55.178	44.108	35.213	48.738	5	630	3.050	74	20	43
MSS63 514	268,65	84,75	104.858	71.206	56.987	45.495	46.060		630	3.050	74	19	41



Model Model	**Defrost Isıtıcılar** Electric Defrost Heater			**Boyutlar** Dimensions									**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	B1	B2													
	Batarya Coil	**Batarya** Coil	**Tava** D.Tray	**L**	**H**	**W**	**LC**	**H1**	**H2**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(nxW)	**(nxW)**	**(nxW)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
MSS45 311	5x1050	5x1050	2x1050	237	80	56	198	75	72	49	45	34	22	35	D
MSS45 312	6x1050	6x1050	2x1050	237	80	56	198	75	72	49	45	34	22	35	C
MSS45 314	8x1050	8x1050	2x1050	237	80	62	198	75	72	55	51	41	22	42	B
MSS45 315	9x1050	9x1050	2x1050	237	80	71	198	75	72	63	59	49	22	54	B
MSS50 311	5x1050	5x1050	2x1050	237	80	56	198	75	72	49	45	34	22	35	E
MSS50 312	6x1050	6x1050	2x1050	237	80	56	198	75	72	49	45	34	22	35	E
MSS50 314	8x1050	8x1050	2x1050	237	80	62	198	75	72	55	51	41	22	42	D
MSS50 315	9x1050	9x1050	2x1050	237	80	71	198	75	72	63	59	49	28	54	D
MSS45 411	5X1350	5X1350	2X1350	302	80	56	130	75	72	49	45	34	22	35	D
MSS45 412	6X1350	6X1350	2X1350	302	80	56	130	75	72	49	45	34	22	42	C
MSS45 414	8X1350	8X1350	2X1350	302	80	62	130	75	72	55	51	41	22	42	B
MSS45 415	9X1350	9X1350	2X1350	302	80	71	130	75	72	63	59	49	28	54	B
MSS50 411	5X1350	5X1350	2X1350	302	80	56	130	75	72	49	45	34	22	42	E
MSS50 412	6X1350	6X1350	2X1350	302	80	56	130	75	72	49	45	34	22	42	E
MSS50 414	8X1350	8X1350	2X1350	302	80	62	130	75	72	55	51	41	28	42	D
MSS50 415	9X1350	9X1350	2X1350	302	80	71	130	75	72	63	59	49	28	54	D
	(nxW)	**(nxW)**	**(nxW)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
MSS63 212	8X1050	8X1050	2X1050	242	118	72	203	113	108	70	65	41	22	54	D
MSS63 214	10X1050	10X1050	2X1050	242	118	81	203	113	108	78	73	49	22	54	C
MSS63 312	8X1550	8X1550	2X1550	342	118	72	303	113	108	70	65	41	22	64	D
MSS63 314	10X1550	10X1550	2X1550	342	118	81	303	113	108	78	73	49	28	64	C
MSS63 412	8X2050	8X2050	2X2050	442	118	72	200	113	108	70	65	41	28	64	D
MSS63 414	10X2050	10X2050	2X2050	442	118	81	200	113	108	78	73	49	28	64	C
MSS63 512	8X2550	8X2550	2X2550	542	118	72	-	113	108	70	65	41	35	64	D
MSS63 514	10X2550	10X2550	2X2550	542	118	72	-	113	108	78	73	49	35	64	D

MSO Serisi
MSO Serie

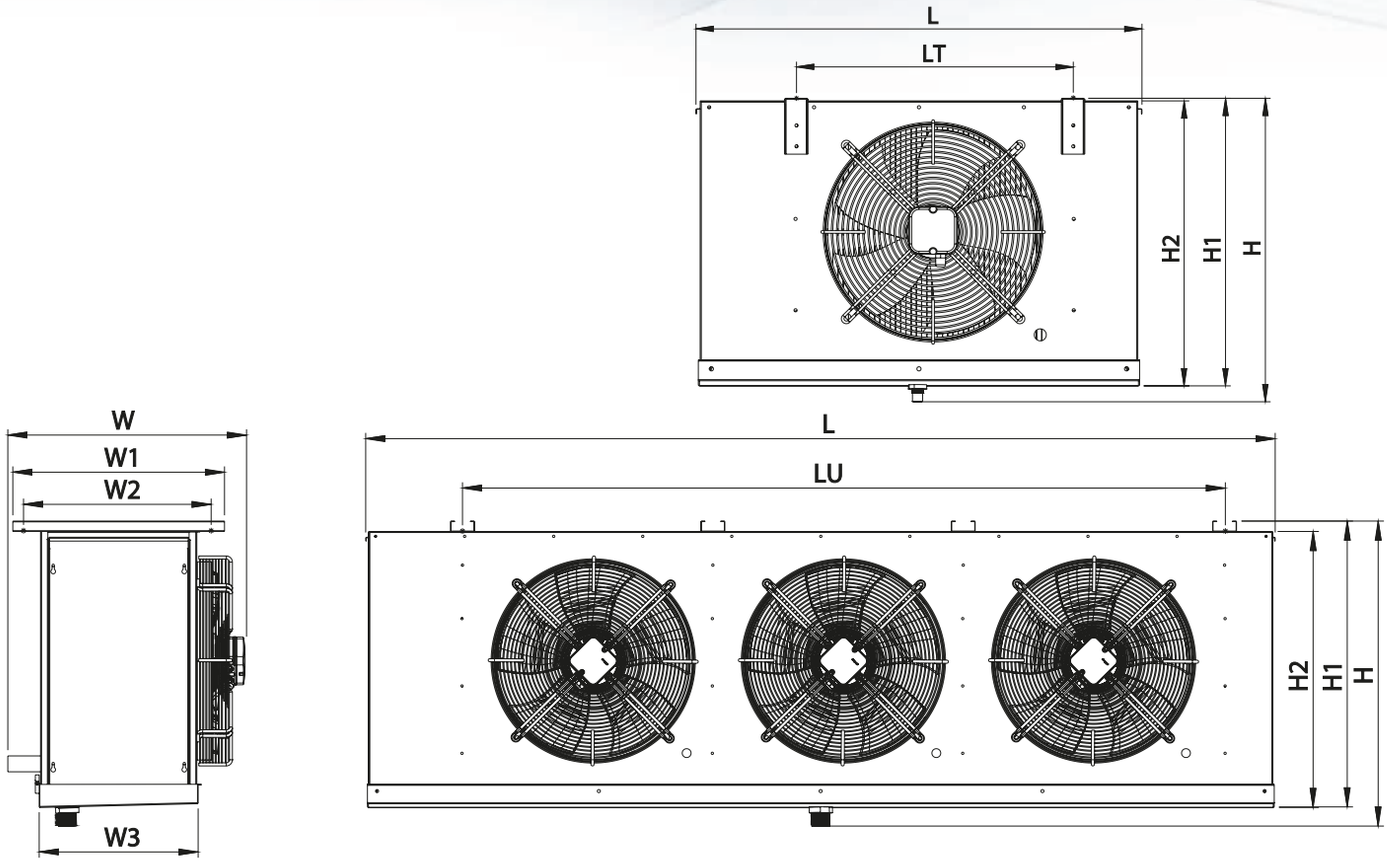
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Fanlar Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1 Te= 0°C TO= +10°C	SC2 Te= -8°C TO= 0°C	SC3 Te= -25°C TO= -18°C	SC4 Te= -31°C TO= -25°C	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSO30 111	3,98	1,55	1.877	1.267	982	770	1.556	1	300	72	41	11	24
MSO30 112	5,30	2,06	2.233	1.478	1.208	980	1.496		300	72	41	11	23
MSO30 114	7,95	3,10	3.030	2.056	1.612	1.286	1.390		300	72	41	10	21
MSO30 211	7,95	3,10	3.754	2.534	1.964	1.540	3.112	2	300	144	44	11	24
MSO30 212	10,60	4,12	4.466	2.956	2.416	1.960	2.992		300	144	44	11	23
MSO30 214	15,91	6,20	6.060	4.112	3.224	2.572	2.780		300	144	44	10	21
MSO30 311	11,93	4,65	5.631	3.801	2.946	2.310	4.668	3	300	216	46	11	24
MSO30 312	15,91	6,18	6.699	4.434	3.624	2.940	4.488		300	216	46	11	23
MSO30 314	23,86	9,30	9.090	6.168	4.836	3.858	4.170		300	216	46	10	21
MSO35 111	5,30	2,05	2.860	1.930	1.550	1.240	2.820	1	350	165	44	13	27
MSO35 112	7,07	2,73	3.640	2.460	1.970	1.580	2.730		350	165	44	12	26
MSO35 114	10,61	4,10	4.860	3.290	2.630	2.120	2.550		350	165	44	11	25
MSO40 111	5,30	2,05	3.198	2.158	1.717	1.366	3.500		400	160	51	14	29
MSO40 112	7,07	2,73	3.927	2.568	2.097	1.686	3.309		400	160	51	13	28
MSO40 114	10,61	4,10	5.236	3.460	2.815	2.270	3.003		400	160	51	12	25
MSO35 211	10,61	4,10	5.720	3.860	3.100	2.480	5.640	2	350	330	47	13	27
MSO35 212	14,14	5,46	7.280	4.920	3.940	3.160	5.460		350	330	47	12	26
MSO35 214	21,21	8,20	9.720	6.580	5.260	4.240	5.100		350	330	47	11	25
MSO40 211	10,61	4,10	6.396	4.316	3.434	2.732	7.000		400	320	54	14	29
MSO40 212	14,14	5,46	7.854	5.136	4.194	3.372	6.618		400	320	54	13	28
MSO40 214	21,21	8,20	10.472	6.920	5.630	4.540	6.006		400	320	54	12	25
MSO35 311	15,91	6,15	8.580	5.790	4.650	3.720	8.460	3	350	495	49	13	27
MSO35 312	21,21	8,19	10.920	7.380	5.910	4.740	8.190		350	495	49	12	26
MSO35 314	31,82	12,30	14.580	9.870	7.890	6.360	7.650		350	495	49	11	25
MSO40 311	15,91	6,15	9.594	6.474	5.151	4.098	10.500		400	480	56	14	29
MSO40 312	21,21	8,19	11.781	7.704	6.291	5.058	9.927		400	480	56	13	28
MSO40 314	31,82	12,30	15.708	10.380	8.445	6.810	9.009		400	480	56	12	25
MSO45 211	18,38	7,05	10.320	6.990	5.590	4.500	10.080	2	450	490	50	16	33
MSO45 212	24,51	9,40	12.980	8.790	7.030	5.660	9.820		450	490	50	15	32
MSO45 214	36,76	14,10	17.420	11.800	9.440	7.600	9.330		450	490	50	14	31
MSO45 215	49,01	18,80	20.830	14.110	11.280	9.090	8.900		450	490	50	14	29
MSO50 211	18,38	7,05	12.410	8.400	6.720	5.410	15.100		500	1.180	59	21	45
MSO50 212	24,51	9,40	15.480	10.490	8.390	6.750	14.320		500	1.180	59	20	43
MSO50 214	36,76	14,10	20.800	14.100	11.380	9.160	12.860		500	1.180	59	18	38
MSO50 215	49,01	18,80	25.140	17.020	13.620	10.960	11.630		500	1.180	59	16	35



Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										Bağlantılar Connections		Enerji Sınıfı Energy Consumption
	B1	B2														
	Batarya Coil	Batarya Coil	Tava D.Tray	L	H	W	LT	LU	H1	H2	W1	W2	W3	Giriş Input	Çıkış Output	
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")	
MSO30 111	3x250	3x250	2x250	77	51	47	48	-	46	46	39	36	29	1/2	1/2	C
MSO30 112	4x250	4x250	2x250	77	51	47	48	-	46	46	39	36	29	1/2	19	C
MSO30 114	6x250	6x250	2x250	77	51	57	48	-	46	46	46	43	36	1/2	19	B
MSO30 211	3x500	3x500	2x500	121	51	47	-	-	46	46	39	36	29	16	22	C
MSO30 212	4x500	4x500	2x500	121	51	47	-	-	46	46	39	36	29	16	22	C
MSO30 214	6x500	6x500	2x500	121	51	57	-	-	46	46	46	43	36	16	22	B
MSO30 311	3x750	3x750	2x750	166	51	47	-	138	46	46	39	36	29	16	22	C
MSO30 312	4x750	4x750	2x750	166	51	47	-	138	46	46	39	36	29	16	22	C
MSO30 314	6x750	6x750	2x750	166	51	57	-	138	46	46	46	43	36	16	28	B
MSO35 111	4x300	4x300	2x300	86	61	56	53	-	55	55	44	41	34	16	19	D
MSO35 112	5x300	5x300	2x300	86	61	56	53	-	55	55	44	41	34	16	19	D
MSO35 114	7x300	7x300	2x300	86	61	62	53	-	55	55	51	48	41	16	22	C
MSO40 111	4x300	4x300	2x300	86	61	56	53	-	55	55	44	41	34	16	19	D
MSO40 112	5x300	5x300	2x300	86	61	56	53	-	55	55	44	41	34	16	19	D
MSO40 114	7x300	7x300	2x300	86	61	62	53	-	55	55	51	48	41	16	22	C
MSO35 211	4x550	4x550	2x550	136	61	56	-	-	55	55	44	41	34	16	22	D
MSO35 212	5x550	5x550	2x550	136	61	56	-	-	55	55	44	41	34	16	22	D
MSO35 214	7x550	7x550	2x550	136	61	62	-	-	55	55	51	48	41	16	28	C
MSO40 211	4x550	4x550	2x550	136	61	56	-	-	55	55	44	41	34	16	22	D
MSO40 212	5x550	5x550	2x550	136	61	56	-	-	55	55	44	41	34	16	22	D
MSO40 214	7x550	7x550	2x550	136	61	62	-	-	55	55	51	48	41	16	28	C
MSO35 311	4x800	4x800	2x800	186	61	56	-	153	58	55	44	45	34	16	28	D
MSO35 312	5x800	5x800	2x800	186	61	56	-	153	58	55	44	45	34	16	28	D
MSO35 314	7x800	7x800	2x800	186	61	62	-	153	58	55	51	51	41	22	35	C
MSO40 311	4x800	4x800	2x800	186	61	56	-	153	58	55	44	45	34	16	28	D
MSO40 312	5x800	5x800	2x800	186	61	56	-	153	58	55	44	45	34	16	35	D
MSO40 314	7x800	7x800	2x800	186	61	62	-	153	58	55	51	51	41	22	35	C
MSO45 211	5x700	5x700	2x700	166	80	56	-	-	75	72	49	45	34	16	28	D
MSO45 212	6x700	6x700	2x700	166	80	56	-	-	75	72	49	45	34	16	35	C
MSO45 214	8x700	8x700	2x700	166	80	62	-	-	75	72	55	51	41	22	35	B
MSO45 215	9x700	9x700	2x700	166	80	71	-	-	75	72	63	59	49	22	54	B
MSO50 211	5x700	5x700	2x700	166	80	56	-	-	75	72	49	45	34	16	28	E
MSO50 212	6x700	6x700	2x700	166	80	56	-	-	75	72	49	45	34	22	35	E
MSO50 214	8x700	8x700	2x700	166	80	62	-	-	75	72	55	51	41	22	35	D
MSO50 215	9x700	9x700	2x700	166	80	71	-	-	75	72	63	59	49	22	54	D

MSO Serisi
MSO Serie

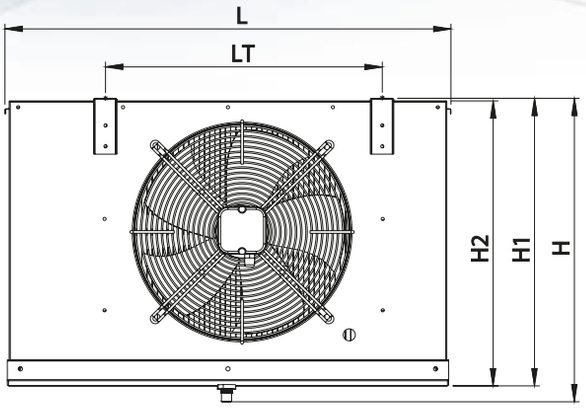
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

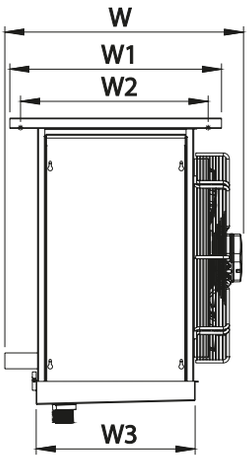
Batarya Özellikleri
Heat Exchanger Specifications

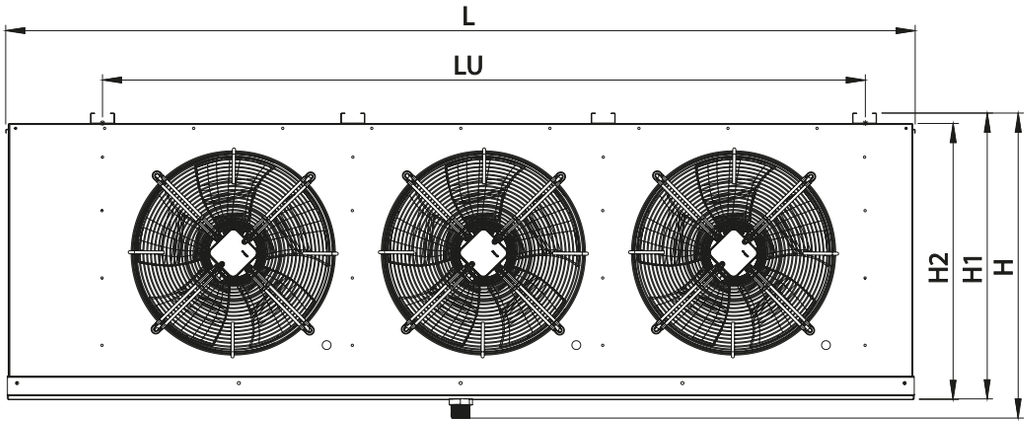
Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 10 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **230V AC 1300-1400 d/d-rpm**					**Üfleme Mesafesi** Air Throw	
			SC1 Te= 0°C TO= +10°C	**SC2** Te= -8°C TO= 0°C	**SC3** Te= -25°C TO= -18°C	**SC4** Te= -31°C TO= -25°C	**Hava Debisi** Air Flow	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Ses Basınç Seviyesi** Sound Pressure Level	**Yönlendiricisiz** Without Streamer	**Akış Yönlendiricili** With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSO45 311	27,57	10,58	15.480	10.485	8.385	6.750	15.120	3	450	735	52	16	33
MSO45 312	36,76	14,10	19.470	13.185	10.545	8.490	14.730		450	735	52	15	32
MSO45 314	55,14	21,15	26.130	17.700	14.160	11.400	13.995		450	735	52	14	31
MSO45 315	73,52	28,20	31.245	21.165	16.920	13.635	13.350		450	735	52	14	29
MSO50 311	27,57	10,57	18.960	12.840	10.270	8.270	22.650		500	1.770	61	21	45
MSO50 312	36,76	14,10	23.230	15.730	12.580	10.130	21.480		500	1.770	61	20	43
MSO50 314	55,14	21,15	31.500	21.340	17.020	13.700	19.290		500	1.770	61	18	38
MSO50 315	73,52	28,20	37.710	25.540	20.430	16.450	17.450		500	1.770	61	16	35
MSO45 411	36,76	14,10	20.640	13.980	11.180	9.000	20.160	4	450	980	53	16	33
MSO45 412	49,01	18,80	25.960	17.580	14.060	11.320	19.640		450	980	53	15	32
MSO45 414	73,52	28,20	34.840	23.600	18.880	15.200	18.660		450	980	53	14	31
MSO45 415	98,03	37,60	42.096	28.874	21.055	18.180	17.800		450	980	53	14	29
MSO50 411	36,76	14,10	25.000	16.930	13.540	10.900	30.200		500	2.360	62	21	45
MSO50 412	49,01	18,80	30.770	20.803	16.455	13.510	28.640		500	2.360	62	20	43
MSO50 414	73,52	28,20	42.400	28.700	22.900	18.500	25.720		500	2.360	62	18	38
MSO50 415	98,03	37,60	48.879	33.896	27.240	21.930	23.270		500	2.360	62	16	35
							Fanlar / Fans **400V AC 880 d/d-rpm**						
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
MSO63 212	58,91	22,60	28.825	19.432	14.638	12.334	19.740	2	630	1.220	70	21	44
MSO63 214	88,36	33,90	38.275	25.990	20.400	16.277	18.772		630	1.220	70	20	42
MSO63 312	88,37	33,90	43.238	29.148	21.957	18.501	29.610	3	630	1.830	72	21	44
MSO63 314	132,54	50,85	57.413	38.985	30.600	24.416	28.158		630	1.830	72	20	42
MSO63 412	117,82	45,20	57.650	38.864	29.276	24.668	39.480	4	630	2.440	73	21	44
MSO63 414	176,72	67,80	78.540	53.596	38.793	32.554	37.544		630	2.440	73	20	42
MSO63 512	147,28	56,50	72.063	48.580	36.595	30.835	49.350	5	630	3.050	74	21	44
MSO63 514	220,90	84,75	95.924	65.780	45.369	40.693	46.930		630	3.050	74	20	42







Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										Bağlantılar Connections		Enerji Sınıfı Energy Consumption
	B1	B2														
	Batarya Coil	Batarya Coil	Tava D.Tray	L	H	W	LT	LU	H1	H2	W1	W2	W3	Giriş Input	Çıkış Output	
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")	
MSO45 311	5x1050	5x1050	2x1050	237	80	56	-	198	75	72	49	45	34	22	35	D
MSO45 312	6x1050	6x1050	2x1050	237	80	56	-	198	75	72	49	45	34	22	35	C
MSO45 314	8x1050	8x1050	2x1050	237	80	62	-	198	75	72	55	51	41	22	42	B
MSO45 315	9x1050	9x1050	2x1050	237	80	71	-	198	75	72	63	59	49	22	54	B
MSO50 311	5x1050	5x1050	2x1050	237	80	56	-	198	75	72	49	45	34	22	35	E
MSO50 312	6x1050	6x1050	2x1050	237	80	56	-	198	75	72	49	45	34	22	35	E
MSO50 314	8x1050	8x1050	2x1050	237	80	62	-	198	75	72	55	51	41	22	42	D
MSO50 315	9x1050	9x1050	2x1050	237	80	71	-	198	75	72	63	59	49	28	54	D
MSO45 411	5X1350	5X1350	2X1350	302	80	56	-	-	75	72	49	45	34	22	35	D
MSO45 412	6X1350	6X1350	2X1350	302	80	56	-	-	75	72	49	45	34	22	42	C
MSO45 414	8X1350	8X1350	2X1350	302	80	62	-	-	75	72	55	51	41	22	42	B
MSO45 415	9X1350	9X1350	2X1350	302	80	71	-	-	75	72	63	59	49	28	54	B
MSO50 411	5X1350	5X1350	2X1350	302	80	56	-	-	75	72	49	45	34	22	42	E
MSO50 412	6X1350	6X1350	2X1350	302	80	56	-	-	75	72	49	45	34	22	42	E
MSO50 414	8X1350	8X1350	2X1350	302	80	62	-	-	75	72	55	51	41	28	42	D
MSO50 415	9X1350	9X1350	2X1350	302	80	71	-	-	75	72	63	59	49	28	54	D
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")	
MSO63 212	8X1050	8X1050	2X1050	242	118	72	-	-	113	108	70	65	41	22	54	D
MSO63 214	10X1050	10X1050	2X1050	242	118	81	-	-	113	108	78	73	49	22	54	C
MSO63 312	8X1550	8X1550	2X1550	342	118	72	-	303	113	108	70	65	41	22	64	D
MSO63 314	10X1550	10X1550	2X1550	342	118	81	-	303	113	108	78	73	49	28	64	C
MSO63 412	8X2050	8X2050	2X2050	442	118	72	-	-	113	108	70	65	41	28	64	D
MSO63 414	10X2050	10X2050	2X2050	442	118	81	-	-	113	108	78	73	49	35	64	C
MSO63 512	8X2550	8X2550	2X2550	542	118	72	-	-	113	108	70	65	41	35	64	D
MSO63 514	10X2550	10X2550	2X2550	542	118	81	-	-	113	108	78	73	49	35	64	C

NSS Serisi
NSS Serie

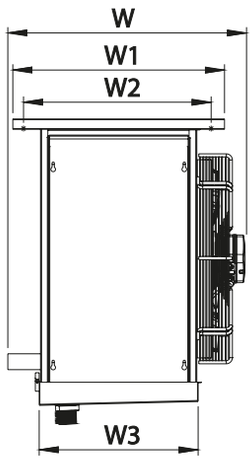
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

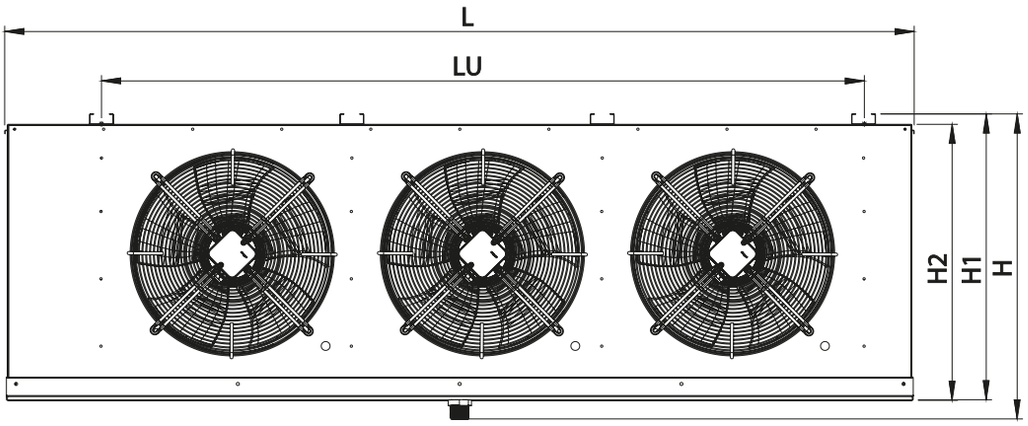
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8"

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Fanlar Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1 Te= 0°C T0= +10°C	SC2 Te= -8°C T0= 0°C	SC3 Te= -25°C T0= -18°C	SC4 Te= -31°C T0= -25°C	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
NSS30 111	4,73	2,40	2.041	1.323	1.100	883	1.483	1	300	72	41	11	23
NSS30 112	6,30	3,20	2.622	1.754	1.414	1.128	1.406		300	72	41	10	22
NSS30 114	9,46	4,80	2.977	1.973	1.667	1.363	1.283		300	72	41	9	20
NSS30 211	9,46	4,80	4.082	2.646	2.200	1.766	2.966	2	300	144	44	11	23
NSS30 212	12,61	6,40	5.244	3.508	2.828	2.256	2.812		300	144	44	10	22
NSS30 214	18,91	9,60	5.954	3.946	3.334	2.726	2.566		300	144	44	9	20
NSS30 311	14,18	7,20	6.123	3.969	3.300	2.649	4.449	3	300	216	44	11	23
NSS30 312	18,65	8,70	7.685	5.105	4.193	3.363	4.218		300	216	44	10	22
NSS30 314	28,37	14,40	10.173	6.704	5.393	4.332	3.849		300	216	44	9	20
NSS35 111	6,31	3,20	3.450	2.320	1.850	1.480	2.710	1	350	165	44	12	26
NSS35 112	8,41	4,26	3.800	2.450	2.064	1.662	2.547		350	165	44	11	25
NSS35 114	12,61	6,40	5.272	3.543	2.869	2.294	2.300		350	165	44	10	22
NSS40 111	6,31	3,20	3.790	2.538	1.980	1.580	3.265		400	160	51	13	27
NSS40 112	8,41	4,26	4.285	2.741	2.303	1.840	3.047		400	160	51	12	26
NSS40 114	12,61	6,40	5.832	3.956	3.159	2.524	2.706		400	160	51	11	23
NSS35 211	12,61	6,40	6.900	4.640	3.700	2.960	5.420	2	350	330	47	12	26
NSS35 212	16,82	8,52	7.600	4.900	4.128	3.324	5.094		350	330	47	11	25
NSS35 214	25,22	12,80	10.544	7.086	5.738	4.588	4.600		350	330	47	10	22
NSS40 211	12,61	6,40	7.580	5.076	3.960	3.160	6.530		400	320	54	13	27
NSS40 212	16,82	8,52	8.570	5.482	4.606	3.680	6.094		400	320	54	12	26
NSS40 214	25,22	12,80	11.664	7.912	6.318	5.048	5.412		400	320	54	11	23
NSS35 311	18,92	9,60	10.350	6.960	5.550	4.440	8.130	3	350	495	49	12	26
NSS35 312	25,22	12,78	11.664	7.371	6.246	5.041	7.641		350	495	49	11	25
NSS35 314	37,84	19,20	15.816	10.629	8.607	6.882	6.900		350	495	49	10	22
NSS40 311	18,92	9,60	11.494	7.708	6.117	4.915	9.795		400	480	56	13	27
NSS40 312	25,22	12,78	12.855	8.223	6.909	5.520	9.141		400	480	56	12	26
NSS40 314	37,84	19,20	17.496	11.868	9.477	7.572	8.118		400	480	56	11	23





Model Model	**Defrost Isıtıcılar** Electric Defrost Heater			**Boyutlar** Dimensions									**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	B1	B2													
	Batarya Coil	**Batarya** Coil	**Tava** D.Tray	**L**	**H**	**W**	**LC**	**H1**	**H2**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(nxW)	**(nxW)**	**(nxW)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
NSS30 111	3x250	3x250	2x250	77	51	47	48	46	46	39	36	29	5/8	5/8	D
NSS30 112	4x250	4x250	2x250	77	51	47	48	46	46	39	36	29	5/8	5/8	C
NSS30 114	6x250	6x250	2x250	77	51	57	48	46	46	46	43	36	1/2	28	B
NSS30 211	3x500	3x500	2x500	121	51	47	93	46	46	39	36	29	16	28	D
NSS30 212	4x500	4x500	2x500	121	51	47	93	46	46	39	36	29	16	28	C
NSS30 214	6x500	6x500	2x500	121	51	57	93	46	46	46	43	36	16	35	B
NSS30 311	3x750	3x750	2x750	166	51	47	138	46	46	39	36	29	16	35	D
NSS30 312	4x750	4x750	2x750	166	51	47	138	46	46	39	36	29	16	35	C
NSS30 314	6x750	6x750	2x750	166	51	57	138	46	46	46	43	36	16	35	B
NSS35 111	4x300	4x300	2x300	86	61	56	53	55	55	44	41	34	5/8	5/8	D
NSS35 112	5x300	5x300	2x300	86	61	56	53	55	55	44	41	34	16	28	D
NSS35 114	7x300	7x300	2x300	86	61	62	53	55	55	51	48	41	16	28	C
NSS40 111	4x300	4x300	2x300	86	61	56	53	55	55	44	41	34	5/8	5/8	D
NSS40 112	5x300	5x300	2x300	86	61	56	53	55	55	44	41	34	16	28	D
NSS40 114	7x300	7x300	2x300	86	61	62	53	55	55	51	48	41	16	28	C
NSS35 211	4x550	4x550	2x550	136	61	56	103	55	55	44	41	34	19	28	D
NSS35 212	5x550	5x550	2x550	136	61	56	103	55	55	44	41	34	19	35	D
NSS35 214	7x550	7x550	2x550	136	61	62	103	55	55	51	48	41	19	35	C
NSS40 211	4x550	4x550	2x550	136	61	56	103	55	55	44	41	34	19	28	D
NSS40 212	5x550	5x550	2x550	136	61	56	103	55	55	44	41	34	19	35	D
NSS40 214	7x550	7x550	2x550	136	61	62	103	55	55	51	48	41	19	35	C
NSS35 311	4x800	4x800	2x800	186	61	56	153	58	55	49	45	34	19	35	D
NSS35 312	5x800	5x800	2x800	186	61	56	153	58	55	49	45	34	19	35	D
NSS35 314	7x800	7x800	2x800	186	61	62	153	58	55	55	51	41	22	42	C
NSS40 311	4x800	4x800	2x800	186	61	56	153	58	55	49	45	34	19	35	D
NSS40 312	5x800	5x800	2x800	186	61	56	153	58	55	49	45	34	19	22	D
NSS40 314	7x800	7x800	2x800	186	61	62	153	58	55	55	51	41	22	42	C

NSS Serisi
NSS Serie

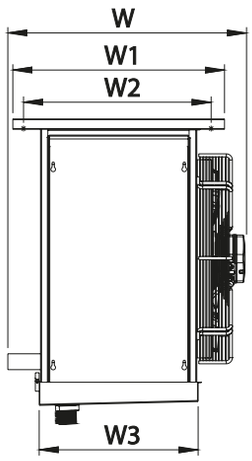
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

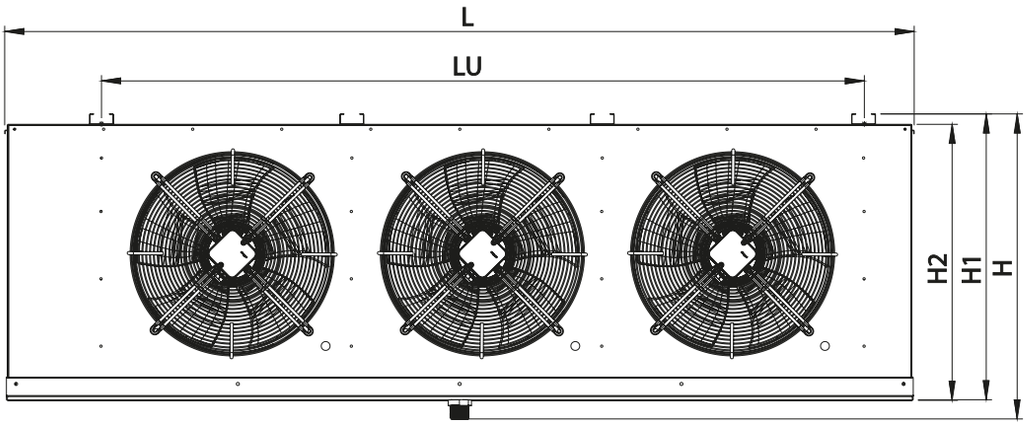
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8”

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Fanlar Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1 Te= 0°C TO= +10°C	SC2 Te= -8°C TO= 0°C	SC3 Te= -25°C TO= -18°C	SC4 Te= -31°C TO= -25°C	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
NSS45 211	21,87	11,13	11.956	8.061	6.553	5.230	9.670	2	450	490	50	15	32
NSS45 212	29,16	14,84	15.239	10.254	8.047	6.448	9.242		450	490	50	14	31
NSS45 214	43,73	22,26	19.543	13.239	10.583	8.517	8.520		450	490	50	13	28
NSS45 215	58,31	29,68	22.163	15.115	12.191	9.850	7.930		450	490	50	12	26
NSS50 211	21,87	11,13	14.320	9.730	7.910	6.370	14.170		500	1.180	59	20	42
NSS50 212	29,16	14,84	17.590	11.960	9.710	7.830	13.080		500	1.180	59	18	39
NSS50 214	43,73	22,26	23.920	16.112	12.601	10.069	11.450		500	1.180	59	16	34
NSS50 215	58,31	29,68	26.460	17.990	14.610	11.770	10.460		500	1.180	59	15	31
NSS45 312	43,73	22,26	22.859	15.381	12.071	9.672	13.863	3	450	735	52	14	31
NSS45 314	65,60	33,39	29.573	20.000	15.694	12.776	12.780		450	735	52	13	28
NSS45 315	87,47	44,52	33.894	22.988	17.798	14.775	11.895		450	735	52	12	26
NSS50 312	43,73	22,26	26.390	17.940	14.570	11.740	19.630		500	1.770	61	18	39
NSS50 314	65,60	33,40	34.817	23.561	19.268	15.438	17.170		500	1.770	61	16	34
NSS50 315	87,47	44,53	40.619	27.377	21.920	17.660	15.700		500	1.770	61	15	31
NSS45 412	58,31	29,68	30.570	20.587	16.248	13.053	18.484	4	450	980	53	14	31
NSS45 414	87,47	44,52	39.176	26.556	21.328	17.218	17.040		450	980	53	13	28
NSS50 412	58,31	29,68	37.763	25.259	19.417	15.391	26.170		500	2.360	62	18	39
NSS50 414	87,47	44,53	45.610	31.000	25.190	20.290	22.900		500	2.360	62	16	34





Model Model	**Defrost Isıtıcılar** Electric Defrost Heater			**Boyutlar** Dimensions									**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	B1	B2													
	Batarya Coil	**Batarya** Coil	**Tava** D.Tray	**L**	**H**	**W**	**LU**	**H1**	**H2**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(nxW)	**(nxW)**	**(nxW)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
NSS45 211	5x700	5x700	2x700	166	80	56	133	75	72	49	45	34	19	35	D
NSS45 212	6x700	6x700	2x700	166	80	56	133	75	72	49	45	34	19	35	C
NSS45 214	8x700	8x700	2x700	166	80	62	133	75	72	55	51	41	22	42	B
NSS45 215	9x700	9x700	2x700	166	80	71	133	75	72	63	59	4	22	54	B
NSS50 211	5x700	5x700	2x700	166	80	56	133	75	72	49	45	34	19	35	E
NSS50 212	6x700	6x700	2x700	166	80	56	133	75	72	49	45	34	19	22	E
NSS50 214	8x700	8x700	2x700	166	80	62	133	75	72	55	51	41	22	42	D
NSS50 215	9x700	9x700	2x700	166	80	71	133	75	72	63	59	49	22	54	D
NSS45 312	6x1050	6x1050	2x1050	237	80	56	198	75	72	49	45	34	22	42	C
NSS45 314	8x1050	8x1050	2x1050	237	80	62	198	75	72	55	51	41	22	54	B
NSS45 315	9x1050	9x1050	2x1050	237	80	71	198	75	72	63	59	49	28	64	B
NSS50 312	6x1050	6x1050	2x1050	237	80	56	198	75	72	49	45	34	22	42	E
NSS50 314	8x1050	8x1050	2x1050	237	80	62	198	75	72	55	51	41	28	54	D
NSS50 315	9x1050	9x1050	2x1050	237	80	71	198	75	72	63	59	49	28	64	D
NSS45 412	6X1350	6X1350	2X1350	302	80	56	130	75	72	49	45	34	22	54	C
NSS45 414	8X1350	8X1350	2X1350	302	80	62	130	75	72	55	51	41	28	64	B
NSS50 412	6X1350	6X1350	2X1350	302	80	56	130	75	72	49	45	34	28	54	E
NSS50 414	8X1350	8X1350	2X1350	302	80	62	130	75	72	55	51	41	35	64	D

NSO Serisi
NSO Serie

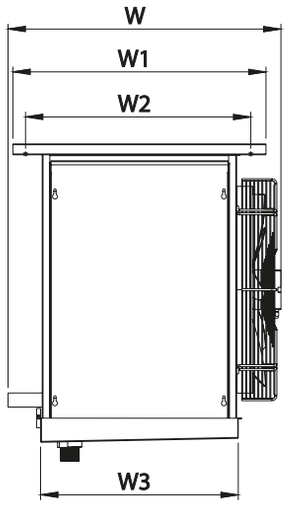
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

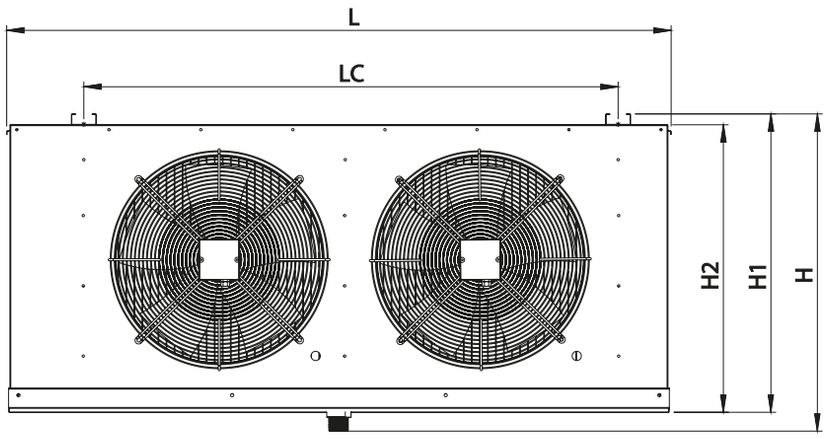
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8"

Hatve / Fin Spacing : 10 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **230V AC 1300-1400 d/d-rpm**					**Üfleme Mesafesi** Air Throw	
			SC1 Te= 0°C TO= +10°C	**SC2** Te= -8°C TO= 0°C	**SC3** Te= -25°C TO= -18°C	**SC4** Te= -31°C TO= -25°C	**Hava Debisi** Air Flow	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Ses Basınç Seviyesi** Sound Pressure Level	**Yönlendiricisiz** Without Streamer	**Akış Yönlendiricili** With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
NSO30 111	3,92	2,40	1.750	1.134	948	765	1.510	1	300	72	41	11	23
NSO30 112	5,22	3,20	2.341	1.538	1.250	1.000	1.439		300	72	41	10	22
NSO30 114	7,84	4,80	2.670	1.763	1.494	1.221	1.321		300	72	41	9	20
NSO30 211	7,75	4,75	3.380	2.178	1.840	1.486	3.020	2	300	144	44	11	23
NSO30 212	10,45	6,40	4.682	3.076	2.500	2.000	2.878		300	144	44	10	22
NSO30 214	15,67	9,60	5.340	3.526	2.988	2.442	2.642		300	144	44	9	20
NSO30 311	11,75	7,20	5.250	3.402	2.844	2.295	4.530	3	300	216	46	11	23
NSO30 312	15,67	9,60	7.300	4.922	3.796	3.021	4.317		300	216	46	10	22
NSO30 314	23,51	14,40	9.324	6.333	4.984	3.990	3.963		300	216	46	9	20
NSO35 111	5,23	3,20	3.030	2.040	1.620	1.300	2.750	1	350	165	44	12	26
NSO35 112	6,97	4,26	3.759	2.530	2.040	1.634	2.612		350	165	44	12	25
NSO35 114	10,45	6,40	4.800	3.176	2.590	2.076	2.376		350	165	44	11	23
NSO40 111	5,23	3,20	3.378	2.268	1.819	1.463	3.350		400	160	51	13	28
NSO40 112	6,97	4,26	4.161	2.803	2.263	1.809	3.136		400	160	51	12	26
NSO40 114	10,45	6,40	5.327	3.566	2.880	2.294	2.820		400	160	51	11	24
NSO35 211	10,45	6,40	6.060	4.080	3.240	2.600	5.500	2	350	330	47	12	26
NSO35 212	13,93	8,52	7.518	5.060	4.080	3.268	5.224		350	330	47	12	25
NSO35 214	20,90	12,80	9.600	6.352	5.180	4.152	4.752		350	330	47	11	23
NSO40 211	10,45	6,40	6.756	4.536	3.638	2.926	6.700		400	320	54	13	28
NSO40 212	13,93	8,52	8.322	5.606	4.526	3.618	6.272		400	320	54	12	26
NSO40 214	20,90	12,80	10.654	7.132	5.760	4.588	5.640		400	320	54	11	24
NSO35 311	15,68	9,60	9.130	6.146	4.956	3.955	8.250	3	350	495	49	12	26
NSO35 312	20,90	12,78	11.276	7.591	6.121	4.902	7.836		350	495	49	12	25
NSO35 314	31,35	19,20	14.400	9.528	7.770	6.228	7.128		350	495	49	11	23
NSO40 311	15,68	9,60	10.134	6.803	5.456	4.389	10.050		400	480	56	13	28
NSO40 312	20,90	12,78	12.484	8.408	6.789	5.426	9.408		400	480	56	12	26
NSO40 314	31,35	19,20	15.981	10.698	8.640	6.882	8.460		400	480	56	11	24





Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions									Bağlantılar Connections		Enerji Sınıfı Energy Consumption
	B1	B2													
	Batarya Coil	Batarya Coil	Tava D.Tray	L	H	W	LC	H1	H2	W1	W2	W3	Giriş Input	Çıkış Output	
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")	
NSO30 111	3x250	3x250	2x250	77	51	47	48	46	46	39	36	29	5/8	5/8	D
NSO30 112	4x250	4x250	2x250	77	51	47	48	46	46	39	36	29	5/8	5/8	C
NSO30 114	6x250	6x250	2x250	77	51	57	48	46	46	46	43	36	1/2	28	B
NSO30 211	3x500	3x500	2x500	121	51	47	93	46	46	39	36	29	1/2	28	D
NSO30 212	4x500	4x500	2x500	121	51	47	93	46	46	39	36	29	16	28	C
NSO30 214	6x500	6x500	2x500	121	51	57	93	46	46	46	43	36	16	35	B
NSO30 311	3x750	3x750	2x750	166	51	47	138	46	46	39	36	29	16	35	D
NSO30 312	4x750	4x750	2x750	166	51	47	138	46	46	39	36	29	16	35	C
NSO30 314	6x750	6x750	2x750	166	51	57	138	46	46	46	43	36	19	35	B
NSO35 111	4x300	4x300	2x300	86	61	56	53	55	55	44	41	34	5/8	5/8	D
NSO35 112	5x300	5x300	2x300	86	61	56	53	55	55	44	41	34	16	28	D
NSO35 114	7x300	7x300	2x300	86	61	62	53	55	55	51	48	41	16	28	C
NSO40 111	4x300	4x300	2x300	86	61	56	53	55	55	44	41	34	5/8	5/8	D
NSO40 112	5x300	5x300	2x300	86	61	56	53	55	55	44	41	34	16	28	C
NSO40 114	7x300	7x300	2x300	86	61	62	53	55	55	51	48	41	16	28	C
NSO35 211	4x550	4x550	2x550	136	61	56	103	55	55	44	41	34	16	28	D
NSO35 212	5x550	5x550	2x550	136	61	56	103	55	55	44	41	34	16	35	D
NSO35 214	7x550	7x550	2x550	136	61	62	103	55	55	51	48	41	19	35	C
NSO40 211	4x550	4x550	2x550	136	61	56	103	55	55	44	41	34	19	28	D
NSO40 212	5x550	5x550	2x550	136	61	56	103	55	55	44	41	34	19	35	C
NSO40 214	7x550	7x550	2x550	136	61	62	103	55	55	51	48	41	19	35	C
NSO35 311	4x800	4x800	2x800	186	61	56	153	58	55	49	45	34	19	35	D
NSO35 312	5x800	5x800	2x800	186	61	56	153	58	55	49	45	34	19	35	D
NSO35 314	7x800	7x800	2x800	186	61	62	153	58	55	55	51	41	19	42	C
NSO40 311	4x800	4x800	2x800	186	61	56	153	58	55	49	45	34	19	35	D
NSO40 312	5x800	5x800	2x800	186	61	56	153	58	55	49	45	34	19	35	C
NSO40 314	7x800	7x800	2x800	186	61	62	153	58	55	55	51	41	22	42	C

NSO Serisi
NSO Serie

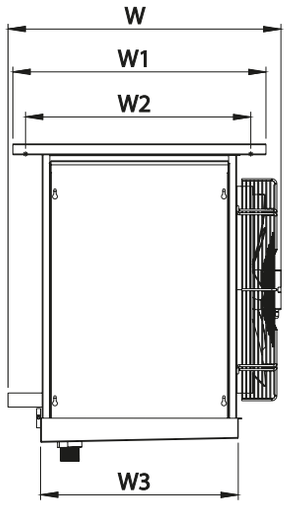
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

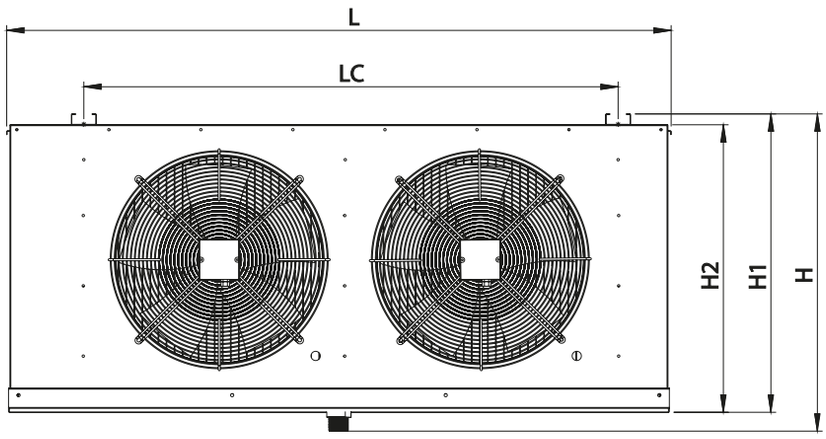
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8”

Hatve / Fin Spacing : 10 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **230V AC 1300-1400 d/d-rpm**					**Üfleme Mesafesi** Air Throw	
			SC1 Te= 0°C TO= +10°C	**SC2** Te= -8°C TO= 0°C	**SC3** Te= -25°C TO= -18°C	**SC4** Te= -31°C TO= -25°C	**Hava Debisi** Air Flow	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Ses Basınç Seviyesi** Sound Pressure Level	**Yönlendiricisiz** Without Streamer	**Akış Yönlendiricili** With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
NSO45 211	18,11	11,13	10.483	6.932	5.675	4.529	9.825	2	450	490	50	15	32
NSO45 212	24,15	14,84	13.541	9.122	7.234	5.815	9.423		450	490	50	15	31
NSO45 214	36,22	22,26	17.711	11.991	9.604	7.701	8.742		450	490	50	13	29
NSO45 215	48,29	29,68	20.485	13.795	11.237	9.050	8.176		450	490	50	13	27
NSO50 211	18,11	11,13	13.100	8.810	6.990	5.610	14.530		500	1.180	59	20	43
NSO50 212	24,15	14,84	16.802	11.244	8.750	7.030	13.530		500	1.180	59	19	40
NSO50 214	36,22	22,26	21.800	14.685	11.594	9.292	11.930		500	1.180	59	17	35
NSO50 215	48,29	29,68	24.900	16.750	13.290	10.670	10.700		500	1.180	59	15	32
NSO45 312	36,22	22,26	19.887	12.825	10.594	8.497	14.135	3	450	735	52	15	31
NSO45 314	54,34	33,39	26.841	18.160	14.406	11.552	13.113		450	735	52	13	29
NSO45 315	72,45	44,52	31.481	21.280	16.856	13.575	12.264		450	735	52	13	27
NSO50 312	36,22	22,26	24.590	16.540	13.130	10.540	20.300		500	1.770	61	19	40
NSO50 314	54,33	33,40	33.000	22.190	17.160	13.780	17.890		500	1.770	61	17	35
NSO50 315	72,44	44,53	37.163	25.462	19.940	16.010	16.060		500	1.770	61	15	32
NSO45 412	48,30	29,68	27.148	18.301	14.588	11.760	18.846	4	450	980	53	15	31
NSO45 414	72,44	44,52	35.490	24.057	19.345	15.543	17.484		450	980	53	13	29
NSO50 412	48,30	29,68	33.571	22.591	17.617	14.060	27.070		500	2.360	62	19	40
NSO50 414	72,45	44,53	43.723	29.476	23.396	18.827	23.860		500	2.360	62	17	35





Model Model	**Defrost Isıtıcılar** Electric Defrost Heater			**Boyutlar** Dimensions									**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	B1	B2													
	Batarya Coil	**Batarya** Coil	**Tava** D.Tray	**L**	**H**	**W**	**LC**	**H1**	**H2**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(nxW)	**(nxW)**	**(nxW)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
NSO45 211	5x700	5x700	2x700	166	80	52	133	75	72	49	45	34	19	35	D
NSO45 212	6x700	6x700	2x700	166	80	52	133	75	72	49	45	34	19	35	C
NSO45 214	8x700	8x700	2x700	166	80	62	133	75	72	55	51	41	22	42	B
NSO45 215	9x700	9x700	2x700	166	80	71	133	75	72	63	59	49	22	54	B
NSO50 211	5x700	5x700	2x700	166	80	52	133	75	72	49	45	34	19	35	E
NSO50 212	6x700	6x700	2x700	166	80	52	133	75	72	49	45	34	22	35	E
NSO50 214	8x700	8x700	2x700	166	80	62	133	75	72	55	51	41	22	42	D
NSO50 215	9x700	9x700	2x700	166	80	71	133	75	72	63	59	49	22	54	D
NSO45 312	6x1050	6x1050	2x1050	237	80	56	198	75	72	49	45	34	22	42	C
NSO45 314	8x1050	8x1050	2x1050	237	80	62	198	75	72	55	51	41	22	54	B
NSO45 315	9x1050	9x1050	2x1050	237	80	71	198	75	72	63	59	49	28	64	B
NSO50 312	6x1050	6x1050	2x1050	237	80	56	198	75	72	49	45	34	2	42	E
NSO50 314	8x1050	8x1050	2x1050	237	80	62	198	75	72	55	51	41	28	54	D
NSO50 315	9x1050	9x1050	2x1050	237	80	71	198	75	72	63	59	49	28	64	D
NSO45 412	6X1350	6X1350	2X1350	302	80	56	130	75	72	49	45	34	28	54	C
NSO45 414	8X1350	8X1350	2X1350	302	80	62	130	75	72	55	51	41	28	64	B
NSO50 412	6X1350	6X1350	2X1350	302	80	56	130	75	72	49	45	34	28	54	E
NSO50 414	8X1350	8X1350	2X1350	302	80	62	130	75	72	55	51	41	35	64	D

OSS Serisi
OSS Serie

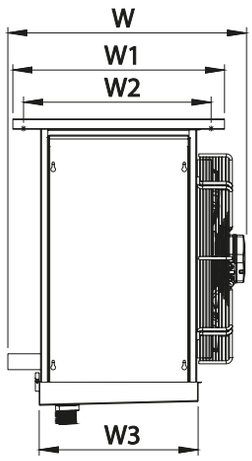
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

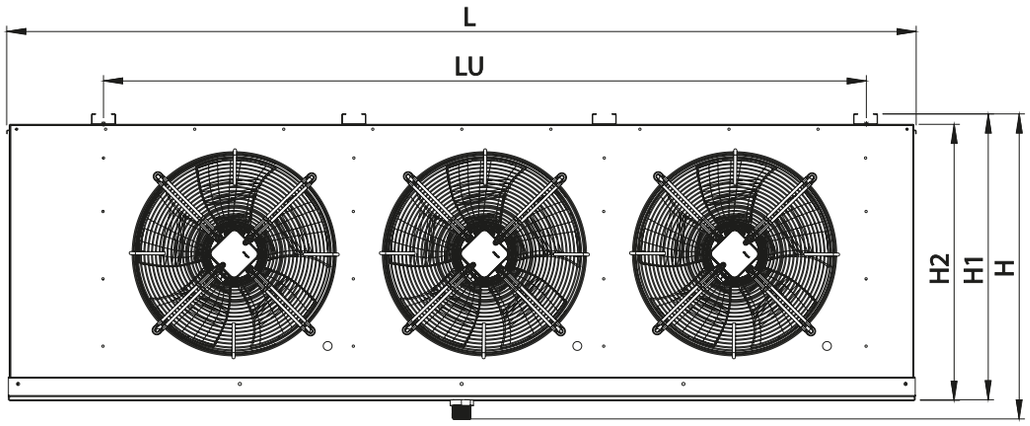
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Fanlar Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1 Te= 0°C T0= +10°C	SC2 Te= -8°C T0= 0°C	SC3 Te= -25°C T0= -18°C	SC4 Te= -31°C T0= -25°C	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
OSS30 111	6,24	1,00	1.833	1.243	1.017	820	1.554	1	300	72	41	11	24
OSS30 112	8,36	1,44	2.363	1.600	1.250	1.010	1.494		300	72	41	11	23
OSS30 211	12,49	2,00	3.677	2.495	2.055	1.666	3.108	2	300	144	44	11	24
OSS30 212	16,71	2,88	4.774	3.230	2.559	2.075	2.988		300	144	44	11	23
OSS30 311	18,64	2,70	5.318	3.609	2.999	2.425	4.662	3	300	216	46	11	24
OSS30 312	25,07	4,32	7.089	4.800	3.750	3.030	4.482		300	216	46	11	23
OSS35 111	8,95	1,55	2.829	1.862	1.546	1.246	2.879		350	165	44	13	28
OSS35 112	11,94	2,06	3.670	2.500	2.070	1.670	2.770		350	165	44	12	27
OSS35 114	17,91	3,10	4.897	3.350	2.748	2.205	2.573	1	350	165	44	12	25
OSS40 111	8,95	1,55	3.065	2.052	1.700	1.359	3.565		400	160	51	14	30
OSS40 112	11,94	2,06	4.016	2.717	2.221	1.809	3.382		400	160	51	13	28
OSS40 114	17,91	3,10	5.340	3.638	2.993	2.416	3.082		400	160	51	12	26
OSS35 211	17,91	3,10	5.658	3.724	3.092	2.492	5.758		350	330	47	13	28
OSS35 212	23,87	4,12	7.340	5.000	4.140	3.340	5.540		350	330	47	12	27
OSS35 214	35,81	6,20	9.794	6.700	5.496	4.410	5.146	2	350	330	47	12	25
OSS40 211	17,91	3,10	6.130	4.104	3.400	2.718	7.130		400	320	54	14	30
OSS40 212	23,87	4,12	8.032	5.434	4.442	3.618	6.764		400	320	54	13	28
OSS40 214	35,81	6,20	10.680	7.276	5.986	4.832	6.164		400	320	54	12	26
OSS35 311	26,86	4,65	8.487	5.586	4.638	3.738	8.637		350	495	49	13	28
OSS35 312	35,81	6,18	11.010	7.500	6.210	5.010	8.310		350	495	49	12	27
OSS35 314	53,72	9,30	14.691	10.050	8.244	6.615	7.719	3	350	495	49	12	25
OSS40 311	26,86	4,65	9.195	6.156	5.100	4.077	10.695		400	480	56	14	30
OSS40 312	35,81	6,18	12.048	8.151	6.663	5.427	10.146		400	480	56	13	28
OSS40 314	53,72	9,30	16.020	10.914	8.979	7.248	9.246		400	480	56	12	26
OSS45 211	31,04	5,30	10.120	6.900	5.700	4.600	10.150		450	490	50	16	34
OSS45 212	41,38	7,06	13.238	8.970	7.267	5.910	9.882		450	490	50	15	33
OSS45 214	62,07	10,60	17.670	12.046	9.881	8.080	9.316	2	450	490	50	14	31
OSS50 211	31,04	5,30	11.740	8.000	6.620	5.340	15.400		500	1.180	59	21	46
OSS50 212	41,38	7,06	15.080	10.280	8.500	6.850	14.660		500	1.180	59	20	44
OSS50 214	62,07	10,60	20.420	13.920	11.510	9.280	13.260		500	1.180	59	18	39
OSS45 312	62,07	10,59	19.857	13.455	10.901	8.865	14.823		450	735	52	15	33
OSS45 314	93,11	15,90	26.505	18.069	14.822	12.120	13.974	3	450	735	52	14	31
OSS50 312	62,07	10,60	22.620	15.420	12.750	10.280	21.990		500	1.770	61	20	44
OSS50 314	93,11	15,90	30.630	20.880	17.270	13.930	19.900		500	1.770	61	18	39
OSS45 412	82,76	14,12	26.476	17.940	14.534	11.820	19.764		450	980	53	15	33
OSS45 414	124,14	21,20	35.340	24.092	19.762	16.160	18.632	4	450	980	53	14	31
OSS50 412	82,76	14,13	30.160	20.560	17.000	13.710	29.330		500	2.360	62	20	44
OSS50 414	124,14	21,20	40.850	27.850	23.030	18.570	26.530		500	2.360	62	18	39





Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions									Bağlantılar Connections		Enerji Sınıfı Energy Consumption
	B1	B2													
	Batarya Coil	**Batarya** Coil	**Tava** D.Tray	**L**	**H**	**W**	**LU**	**H1**	**H2**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(nxW)	**(nxW)**	**(nxW)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
OSS30 111	3x250	3x250	2x250	77	51	45	48	46	46	39	36	29	1/2	1/2	D
OSS30 112	4x250	4x250	2x250	77	51	52	48	46	46	46	43	36	1/2	1/2	C
OSS30 211	3x500	3x500	2x500	121	51	45	93	46	46	39	36	29	16	22	D
OSS30 212	4x500	4x500	2x500	121	51	52	93	46	46	46	43	36	16	28	C
OSS30 311	3x750	3x750	2x750	166	51	45	138	46	46	39	36	29	16	28	D
OSS30 312	4x750	4x750	2x750	166	51	52	138	46	46	46	43	36	16	35	C
OSS35 111	4x300	4x300	2x300	86	61	52	53	55	55	44	41	34	1/2	22	E
OSS35 112	5x300	5x300	2x300	86	61	62	53	55	55	51	48	41	16	22	D
OSS35 114	7x300	7x300	2x300	86	61	71	53	55	55	59	56	49	16	28	C
OSS40 111	4x300	4x300	2x300	86	61	52	53	55	55	44	41	34	1/2	22	D
OSS40 112	5x300	5x300	2x300	86	61	62	53	55	55	51	48	41	16	22	D
OSS40 114	7x300	7x300	2x300	86	61	71	53	55	55	59	56	49	16	28	C
OSS35 211	4x550	4x550	2x550	136	61	52	103	55	55	44	41	34	16	28	E
OSS35 212	5x550	5x550	2x550	136	61	62	103	55	55	51	48	41	16	35	D
OSS35 214	7x550	7x550	2x550	136	61	71	103	55	55	59	56	49	16	35	C
OSS40 211	4x550	4x550	2x550	136	61	52	103	55	55	44	41	34	16	28	D
OSS40 212	5x550	5x550	2x550	136	61	62	103	55	55	51	48	41	16	28	D
OSS40 214	7x550	7x550	2x550	136	61	71	103	55	55	59	56	49	16	35	C
OSS35 311	4x800	4x800	2x800	186	61	56	153	58	55	49	45	34	16	28	E
OSS35 312	5x800	5x800	2x800	186	61	62	153	58	55	55	51	41	16	35	D
OSS35 314	7x800	7x800	2x800	186	61	71	153	58	55	63	59	49	22	35	C
OSS40 311	4x800	4x800	2x800	186	61	56	153	58	55	49	45	34	16	28	D
OSS40 312	5x800	5x800	2x800	186	61	62	153	58	55	55	51	41	16	35	D
OSS40 314	7x800	7x800	2x800	186	61	71	153	58	55	63	59	49	22	35	C
OSS45 211	6x700	6x700	2x700	166	80	52	133	75	72	49	45	34	16	35	D
OSS45 212	7x700	7x700	2x700	166	80	62	133	75	72	55	51	41	16	35	D
OSS45 214	9x700	9x700	2x700	166	80	71	133	75	72	63	59	49	22	42	C
OSS50 211	6x700	6x700	2x700	166	80	52	133	75	72	49	45	34	16	35	E
OSS50 212	7x700	7x700	2x700	166	80	62	133	75	72	55	51	41	22	35	E
OSS50 214	9x700	9x700	2x700	166	80	71	133	75	72	63	59	49	22	42	E
OSS45 312	7x1050	7x1050	2x1050	237	80	62	198	75	72	55	51	41	22	42	D
OSS45 314	9x1050	9x1050	2x1050	237	80	71	198	75	72	63	59	49	22	54	C
OSS50 312	7x1050	7x1050	2x1050	237	80	62	198	75	72	55	51	41	22	42	E
OSS50 314	9x1050	9x1050	2x1050	237	80	71	198	75	72	63	59	49	28	54	E
OSS45 412	7X1350	7X1350	2X1350	302	80	62	130	75	72	55	51	41	22	54	D
OSS45 414	9X1350	9X1350	2X1350	302	80	71	130	75	72	63	59	49	28	64	C
OSS50 412	7X1350	7X1350	2X1350	302	80	62	130	75	72	55	51	41	28	54	E
OSS50 414	9X1350	9X1350	2X1350	302	80	71	130	75	72	63	59	49	28	54	E

OSS Serisi
OSS Serie

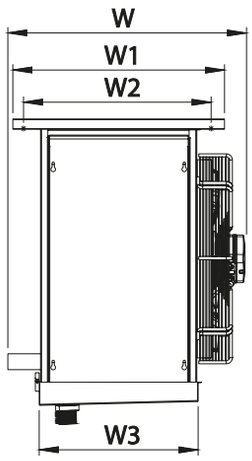
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

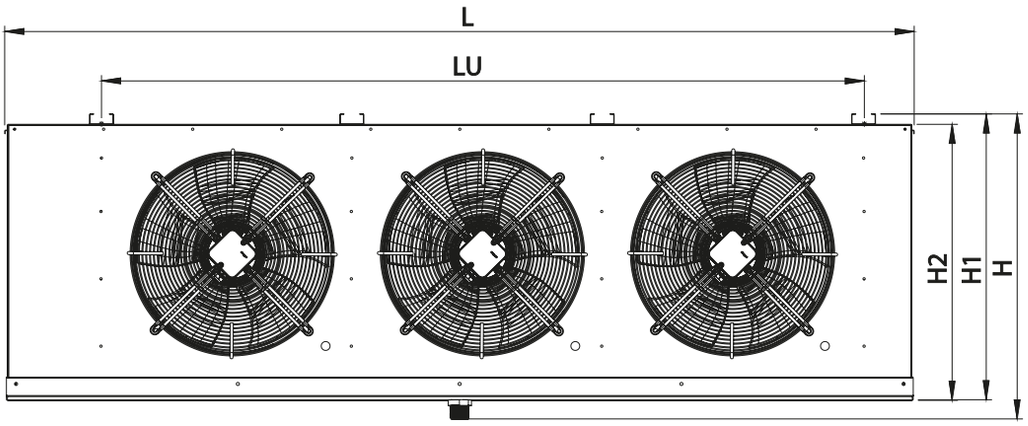
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2”

Hatve / Fin Spacing : 8 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **400V AC 880 d/d-rpm**					**Üfleme Mesafesi** Air Throw	
			SC1 Te= 0°C TO= +10°C	**SC2** Te= -8°C TO= 0°C	**SC3** Te= -25°C TO= -18°C	**SC4** Te= -31°C TO= -25°C	**Hava Debisi** Air Flow	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Ses Basınç Seviyesi** Sound Pressure Level	**Yönlendiricisiz** Without Streamer	**Akış Yönlendiricili** With Streamer
	(m^2)	(dm^3)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
OSS63 212	95,49	16,30	29.138	19.734	15.785	12.848	19.817	2	630	1.220	70	21	44
OSS63 214	143,23	24,40	39.093	26.453	20.522	16.545	18.888		630	1.220	70	20	42
OSS63 312	143,24	24,45	43.707	29.601	23.678	19.272	29.726	3	630	1.830	72	21	44
OSS63 314	214,85	36,60	58.640	39.680	30.783	24.818	28.332		630	1.830	72	20	42
OSS63 412	190,98	32,60	58.276	39.468	31.570	25.696	39.634	4	630	2.440	73	21	44
OSS63 414	286,46	48,80	78.186	52.906	41.044	33.090	37.776		630	2.440	73	20	42
OSS63 512	238,73	40,75	72.845	49.335	39.463	32.120	49.543	5	630	3.050	74	21	44
OSS63 514	358,08	61,00	97.733	66.133	51.305	41.363	47.220		630	3.050	74	20	42





Model Model	**Defrost Isıtıcılar** Electric Defrost Heater			**Boyutlar** Dimensions									**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	B1	B2													
	Batarya Coil	**Batarya** Coil	**Tava** D.Tray	**L**	**H**	**W**	**LU**	**H1**	**H2**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(nxW)	**(nxW)**	**(nxW)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
OSS63 212	8X1050	8X1050	2X1050	242	118	81	203	113	108	78	73	49	28	42	D
OSS63 214	10X1050	10X1050	2X1050	242	118	91	203	113	108	88	82	59	28	42	C
OSS63 312	8X1550	8X1550	2X1550	342	118	81	303	113	108	78	73	49	35	42	D
OSS63 314	10X1550	10X1550	2X1550	342	118	91	303	113	108	88	82	59	35	54	C
OSS63 412	8X2050	8X2050	2X2050	442	118	81	200	113	108	78	73	49	35	54	D
OSS63 414	10X2050	10X2050	2X2050	442	118	91	200	113	108	88	82	59	35	54	C
OSS63 512	8X2550	8X2550	2X2550	542	118	81	-	113	108	78	73	49	35	54	D
OSS63 514	10X2550	10X2550	2X2550	542	118	91	-	113	108	88	82	59	35	64	C

OSO Serisi
OSO Serie

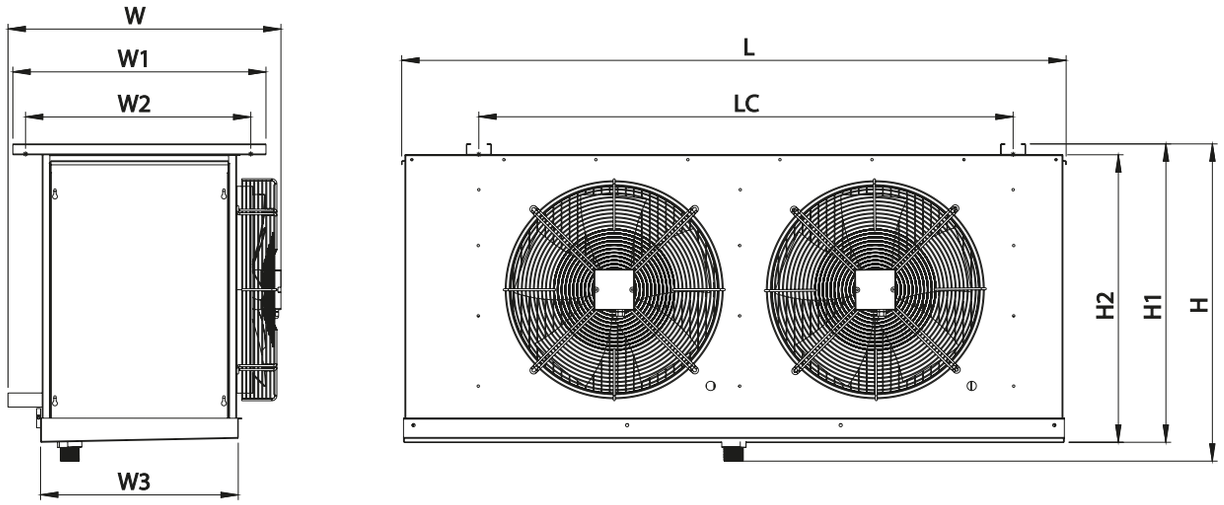
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Fanlar Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1 Te= 0°C T0= +10°C	SC2 Te= -8°C T0= 0°C	SC3 Te= -25°C T0= -18°C	SC4 Te= -31°C T0= -25°C	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
OSO30 111	5,07	1,10	1.576	1.064	865	691	1.578	1	300	72	41	11	24
OSO30 112	6,78	1,46	2.066	1.398	1.114	900	1.521		300	72	41	11	23
OSO30 211	10,14	2,20	3.160	2.136	1.746	1.400	3.156	2	300	144	44	11	24
OSO30 212	13,57	2,92	4.132	2.796	2.228	1.800	3.042		300	144	44	11	23
OSO30 311	15,10	2,70	4.564	3.050	2.522	2.024	4.734	3	300	216	46	11	24
OSO30 312	20,14	3,70	5.981	4.049	3.307	2.698	4.563		300	216	46	11	23
OSO35 111	7,20	1,40	2.215	1.420	1.282	1.037	2.921		350	165	44	13	28
OSO35 112	9,69	2,04	3.220	2.170	1.780	1.420	2.800		350	165	44	13	27
OSO35 114	14,54	3,06	4.319	2.884	2.372	1.913	2.637	1	350	165	44	12	25
OSO40 111	7,21	1,53	2.447	1.552	1.404	1.130	3.628		400	160	51	14	31
OSO40 112	9,69	2,04	2.483	2.357	1.937	1.543	3.464		400	160	51	14	29
OSO40 114	14,54	3,06	4.708	3.187	2.605	2.090	3.177		400	160	51	12	27
OSO35 211	14,41	2,70	5.138	3.449	2.727	2.204	5.842		350	330	47	13	28
OSO35 212	19,39	4,08	6.654	4.492	3.597	2.925	5.600		350	330	47	13	27
OSO35 214	29,08	6,12	8.638	5.768	4.744	3.826	5.274	2	350	330	47	12	25
OSO40 211	14,41	2,70	5.148	3.552	2.953	2.362	7.256		400	320	54	14	31
OSO40 212	19,39	4,08	7.256	4.883	3.884	3.147	6.928		400	320	54	14	29
OSO40 214	29,08	6,12	9.914	6.621	5.210	4.180	6.354		400	320	54	12	27
OSO35 311	21,63	4,10	7.725	5.189	4.119	3.335	8.763		350	495	49	13	28
OSO35 312	29,08	6,12	9.660	6.510	5.340	4.260	8.400		350	495	49	13	27
OSO35 314	43,62	9,18	12.957	8.652	7.116	5.739	7.911	3	350	495	49	12	25
OSO40 311	21,63	4,10	8.406	5.631	4.433	3.390	10.884		400	480	56	14	31
OSO40 312	29,84	5,40	10.648	7.150	5.811	4.629	10.392		400	480	56	14	29
OSO40 314	43,38	8,50	14.719	9.890	7.815	6.270	9.531		400	480	56	12	27
OSO45 211	25,20	5,26	8.540	5.780	4.720	3.760	10.230		450	490	50	16	34
OSO45 212	33,60	7,02	11.370	7.690	6.290	5.010	10.030		450	490	50	15	33
OSO45 214	50,40	10,53	15.230	10.300	8.420	6.710	9.630	2	450	490	50	15	32
OSO50 211	25,20	5,26	10.300	6.970	5.690	4.540	15.690		500	1.180	59	22	47
OSO50 212	33,60	7,02	13.799	9.287	7.508	6.114	14.980		500	1.180	59	21	45
OSO50 214	50,40	10,53	18.230	12.330	10.080	8.030	13.740		500	1.180	59	19	41
OSO45 312	50,40	10,53	17.500	11.820	9.539	7.781	15.045		450	735	52	15	33
OSO45 314	75,60	15,80	24.274	16.379	12.726	10.250	14.445	3	450	735	52	15	32
OSO50 312	50,40	10,53	21.052	14.134	11.247	9.111	22.470		500	1.770	61	21	45
OSO50 314	75,60	15,80	27.350	18.500	15.120	12.050	20.620		500	1.770	61	19	41
OSO45 412	67,20	14,04	23.004	15.576	12.791	10.427	20.060		450	980	53	15	33
OSO45 414	100,81	21,06	31.278	21.272	17.564	14.149	19.260	4	450	980	53	15	32
OSO50 412	67,20	14,04	27.650	18.617	15.110	12.325	29.970		500	2.360	62	21	45
OSO50 414	100,81	21,06	37.584	25.418	20.864	17.022	27.490		500	2.360	62	19	41



Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions									Bağlantılar Connections		Enerji Sınıfı Energy Consumption
	B1	B2													
	Batarya Coil	**Batarya** Coil	**Tava** D.Tray	**L**	**H**	**W**	**LC**	**H1**	**H2**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(nxW)	**(nxW)**	**(nxW)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
OS030 111	3x250	3x250	2x250	77	51	45	48	46	46	39	36	29	1/2	1/2	D
OS030 112	4x250	4x250	2x250	77	51	52	48	46	46	46	43	36	1/2	1/2	C
OS030 211	3x500	3x500	2x500	121	51	45	93	46	46	39	36	29	16	22	D
OS030 212	4x500	4x500	2x500	121	51	52	93	46	46	46	43	36	16	28	C
OS030 311	3x750	3x750	2x750	166	51	45	138	46	46	39	36	29	16	28	D
OS030 312	4x750	4x750	2x750	166	51	52	138	46	46	46	43	36	16	35	C
OS035 111	4x300	4x300	2x300	86	61	52	53	55	55	44	41	34	1/2	22	E
OS035 112	5x300	5x300	2x300	86	61	62	53	55	55	51	48	41	16	22	D
OS035 114	7x300	7x300	2x300	86	61	71	53	55	55	59	56	49	16	28	C
OS040 111	4x300	4x300	2x300	86	61	52	53	55	55	44	41	34	1/2	22	E
OS040 112	5x300	5x300	2x300	86	61	62	53	55	55	51	48	41	16	22	D
OS040 114	7x300	7x300	2x300	86	61	71	53	55	55	59	56	49	16	28	C
OS035 211	4x550	4x550	2x550	136	61	52	103	55	55	44	41	34	16	28	E
OS035 212	5x550	5x550	2x550	136	61	62	103	55	55	51	48	41	16	35	D
OS035 214	7x550	7x550	2x550	136	61	71	103	55	55	59	56	49	16	35	C
OS040 211	4x550	4x550	2x550	136	61	52	103	55	55	44	41	34	16	28	D
OS040 212	5x550	5x550	2x550	136	61	62	103	55	55	51	48	41	16	28	D
OS040 214	7x550	7x550	2x550	136	61	71	103	55	55	59	56	49	16	35	C
OS035 311	4x800	4x800	2x800	186	61	56	153	58	55	49	45	34	16	28	E
OS035 312	5x800	5x800	2x800	186	61	62	153	58	55	55	51	41	16	42	D
OS035 314	7x800	7x800	2x800	186	61	71	153	58	55	63	59	49	16	54	C
OS040 311	4x800	4x800	2x800	186	61	56	153	58	55	49	45	34	16	28	D
OS040 312	5x800	5x800	2x800	186	61	62	153	58	55	55	51	41	16	35	D
OS040 314	7x800	7x800	2x800	186	61	71	153	58	55	63	59	49	16	35	C
OS045 211	6x700	6x700	2x700	166	80	52	133	75	72	49	45	34	16	35	D
OS045 212	7x700	7x700	2x700	166	80	62	133	75	72	55	51	41	16	28	D
OS045 214	9x700	9x700	2x700	166	80	71	133	75	72	63	59	49	22	42	C
OS050 211	6x700	6x700	2x700	166	80	52	133	75	72	49	45	34	16	35	E
OS050 212	7x700	7x700	2x700	166	80	62	133	75	72	55	51	41	16	35	E
OS050 214	9x700	9x700	2x700	166	80	71	133	75	72	63	59	49	22	42	E
OS045 312	7x1050	7x1050	2x1050	237	80	62	198	75	72	55	51	41	22	42	D
OS045 314	9x1050	9x1050	2x1050	237	80	71	198	75	72	63	59	49	22	54	C
OS050 312	7x1050	7x1050	2x1050	237	80	62	198	75	72	55	51	41	22	42	E
OS050 314	9x1050	9x1050	2x1050	237	80	71	198	75	72	63	59	49	28	54	E
OS045 412	7X1350	7X1350	2X1350	302	80	62	130	75	72	55	51	41	22	54	D
OS045 414	9X1350	9X1350	2X1350	302	80	71	130	75	72	63	59	49	28	64	C
OS050 412	7X1350	7X1350	2X1350	302	80	62	130	75	72	55	51	41	28	54	E
OS050 414	9X1350	9X1350	2X1350	302	80	71	130	75	72	63	59	49	28	64	D

OSO Serisi
OSO Serie

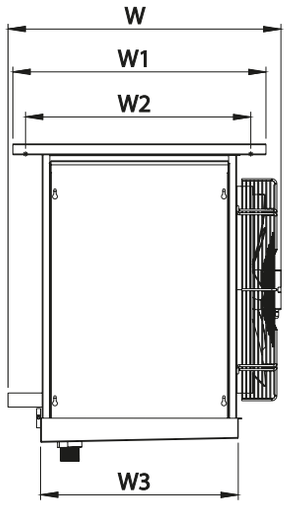
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

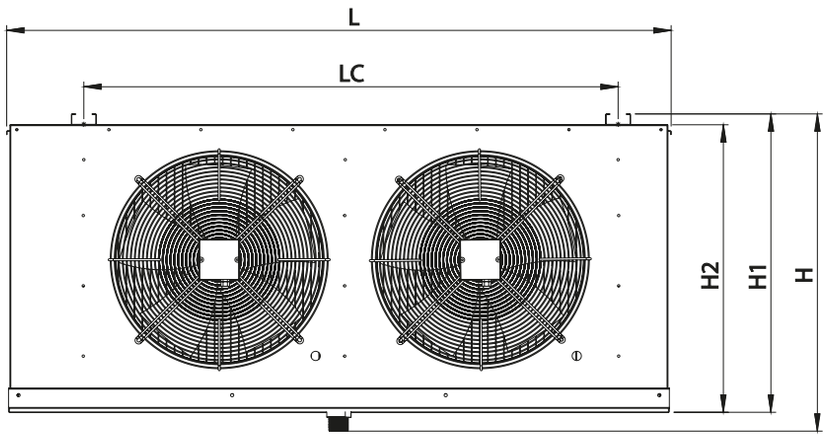
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2”

Hatve / Fin Spacing : 10 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **400V AC 880 d/d-rpm**					**Üfleme Mesafesi** Air Throw	
			SC1 Te= 0°C TO= +10°C	**SC2** Te= -8°C TO= 0°C	**SC3** Te= -25°C TO= -18°C	**SC4** Te= -31°C TO= -25°C	**Hava Debisi** Air Flow	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Ses Basınç Seviyesi** Sound Pressure Level	**Yönlendiricisiz** Without Streamer	**Akış Yönlendiricili** With Streamer
	(m^2)	(dm^3)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
OSO63 212	77,54	16,30	25.271	17.118	13.882	11.291	20.024	2	630	1.220	70	21	45
OSO63 214	116,31	24,40	34.710	23.496	18.467	14.944	19.198		630	1.220	70	20	43
OSO63 312	116,31	24,45	37.907	25.677	20.823	16.937	30.036	3	630	1.830	72	21	45
OSO63 314	174,47	36,60	52.065	35.244	27.701	22.416	28.797		630	1.830	72	20	43
OSO63 412	155,08	32,60	50.542	34.236	27.764	22.582	40.048	4	630	2.440	73	21	45
OSO63 414	232,62	48,80	69.420	46.992	36.934	29.888	38.396		630	2.440	73	20	43
OSO63 512	193,85	40,75	64.547	43.043	34.705	28.228	50.060	5	630	3.050	74	21	45
OSO63 514	290,78	61,00	86.775	58.740	46.168	37.360	47.995		630	3.050	74	20	43





Model Model	**Defrost Isıtıcılar** Electric Defrost Heater			**Boyutlar** Dimensions									**Bağlantılar** Connections		**Enerji Sınıfı** Energy Consumption
	B1	B2													
	Batarya Coil	**Batarya** Coil	**Tava** D.Tray	**L**	**H**	**W**	**LC**	**H1**	**H2**	**W1**	**W2**	**W3**	**Giriş** Input	**Çıkış** Output	
	(nxW)	**(nxW)**	**(nxW)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(mm/")**	**(mm/")**	
OSO63 212	8X1050	8X1050	2X1050	242	118	81	203	113	108	78	73	49	22	42	D
OSO63 214	10X1050	10X1050	2X1050	242	118	91	203	113	108	88	82	59	28	42	C
OSO63 312	8X1550	8X1550	2X1550	342	118	81	303	113	108	78	73	49	28	42	D
OSO63 314	10X1550	10X1550	2X1550	342	118	91	303	113	108	88	82	59	28	54	C
OSO63 412	8X2050	8X2050	2X2050	442	118	81	200	113	108	78	73	49	28	54	D
OSO63 414	10X2050	10X2050	2X2050	442	118	91	200	113	108	88	82	59	35	54	C
OSO63 512	8X2550	8X2550	2X2550	542	118	81	-	113	108	78	73	49	35	54	D
OSO63 514	10X2550	10X2550	2X2550	542	118	91	-	113	108	88	82	59	35	64	C

PSS Serisi
PSS Serie

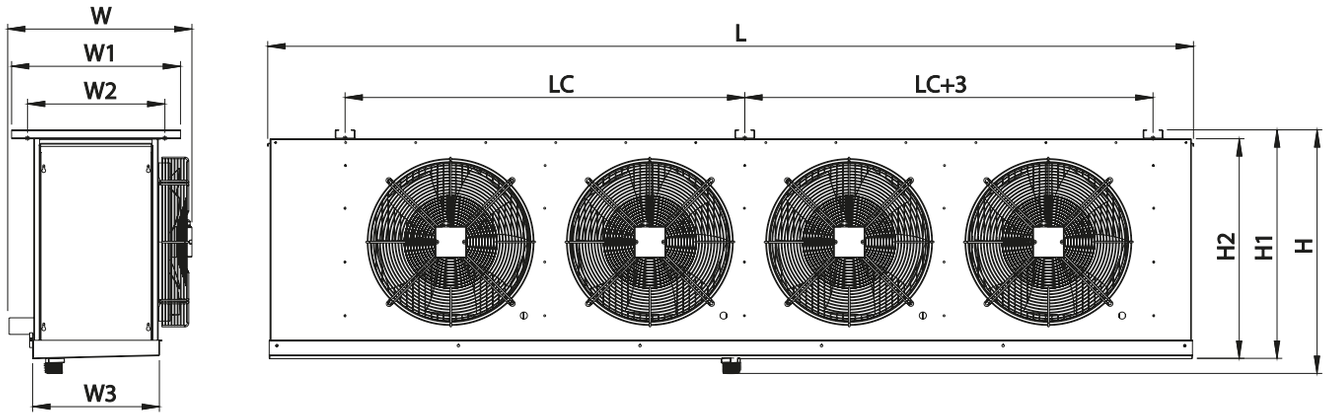
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8"

Hatve / Fin Spacing : 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Fanlar Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1 Te= 0°C T0= +10°C	SC2 Te= -8°C T0= 0°C	SC3 Te= -25°C T0= -18°C	SC4 Te= -31°C T0= -25°C	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
PSS30 111	6,24	1,70	2.123	1.402	1.147	926	1.523	1	300	72	41	11	23
PSS30 112	8,32	2,27	2.685	1.816	1.446	1.157	1.455		300	72	41	10	22
PSS30 211	12,48	3,40	4.246	2.804	2.294	1.852	3.046	2	300	144	44	11	23
PSS30 212	16,64	4,53	5.370	3.632	2.892	2.314	2.910		300	144	44	10	22
PSS30 311	18,72	5,10	6.369	4.206	3.441	2.778	4.569	3	300	216	46	11	23
PSS30 312	24,96	6,80	8.055	5.448	4.338	3.471	4.365		300	216	46	10	22
PSS35 111	8,92	2,40	3.430	2.310	1.890	1.540	2.810		350	165	44	13	27
PSS35 112	11,89	3,20	4.213	2.780	2.287	1.850	2.702		350	165	44	12	26
PSS35 114	17,83	4,80	5.677	3.830	3.052	2.452	2.490	1	350	165	44	11	24
PSS40 111	8,92	2,40	3.890	2.610	2.140	1.740	3.476		400	160	51	14	29
PSS40 112	11,89	3,20	4.675	3.072	2.516	2.029	3.278		400	160	51	13	28
PSS40 114	17,83	4,80	6.244	4.246	3.340	2.670	2.968		400	160	51	12	25
PSS35 211	17,83	4,80	6.860	4.620	3.780	3.080	5.620		350	330	47	13	27
PSS35 212	23,77	6,40	8.426	5.560	4.574	3.700	5.404		350	330	47	12	26
PSS35 214	35,66	9,60	11.354	7.660	6.104	4.904	4.980	2	350	330	47	11	24
PSS40 211	17,83	4,80	7.780	5.220	4.280	3.480	6.952		400	320	54	14	29
PSS40 212	23,77	6,40	9.350	6.144	5.032	4.058	6.556		400	320	54	13	28
PSS40 214	35,66	9,60	12.488	8.492	6.680	5.340	5.936		400	320	54	12	25
PSS35 311	26,75	7,20	10.290	6.930	5.670	4.620	8.430		350	495	49	13	27
PSS35 312	35,66	9,60	12.639	8.340	6.861	5.550	8.106		350	495	49	12	26
PSS35 314	53,49	14,40	17.031	11.490	9.156	7.356	7.470	3	350	495	49	11	24
PSS40 311	26,75	7,20	11.670	7.830	6.420	5.220	10.428		400	480	56	14	29
PSS40 312	35,66	9,60	14.025	9.216	7.548	6.087	9.834		400	480	56	13	28
PSS40 314	53,49	14,40	18.732	12.738	10.020	8.010	8.904		400	480	56	12	25
PSS45 211	30,91	8,33	12.320	8.290	6.780	5.520	10.040		450	490	50	15	33
PSS45 212	41,21	11,11	15.300	10.250	8.356	6.741	9.694		450	490	50	15	32
PSS45 214	61,82	16,67	19.884	13.250	10.926	8.875	9.078	2	450	490	50	14	30
PSS50 211	30,91	8,33	14.410	9.690	7.930	6.450	15.020		500	1.180	59	21	45
PSS50 212	41,21	11,11	18.080	12.160	9.950	8.100	14.220		500	1.180	59	20	42
PSS50 214	61,82	16,67	24.090	16.200	13.260	10.790	12.680		500	1.180	59	18	38
PSS45 312	61,82	16,67	22.950	15.375	12.534	10.112	19.388		450	735	52	20	43
PSS45 314	92,72	25,00	29.826	19.875	16.389	13.313	18.156	3	450	735	52	19	40
PSS50 312	61,82	16,67	27.120	18.240	14.930	12.150	21.340		500	1.770	61	20	42
PSS50 314	92,72	25,00	36.140	24.300	19.900	16.190	19.030		500	1.770	61	18	38
PSS45 412	82,42	22,22	30.600	20.500	16.712	13.482	19.388		450	980	53	15	32
PSS45 414	123,63	33,33	39.768	26.500	21.852	17.750	18.156	4	450	980	53	14	30
PSS50 412	82,42	22,22	36.160	24.320	19.910	16.200	28.450		500	2.360	62	20	42
PSS50 414	123,63	33,33	48.190	32.400	26.530	21.580	25.370		500	2.360	62	18	38



Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions									Bağlantılar Connections		Enerji Sınıfı Energy Consumption
	B1	B2													
	Batarya Coil	Batarya Coil	Tava D.Tray	L	H	W	LC	H1	H2	W1	W2	W3	Giriş Input	Çıkış Output	
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")	
PSS30 111	3x250	3x250	2x250	77	51	47	48	46	46	39	36	29	5/8	5/8	C
PSS30 112	4x250	4x250	2x250	77	51	57	48	46	46	46	43	36	5/8	5/8	C
PSS30 211	3x500	3x500	2x500	121	51	47	93	46	46	39	36	29	16	28	C
PSS30 212	4x500	4x500	2x500	121	51	57	93	46	46	46	43	36	16	28	C
PSS30 311	3x750	3x750	2x750	166	51	47	138	46	46	39	36	29	16	28	C
PSS30 312	4x750	4x750	2x750	166	51	57	138	46	46	46	43	36	16	35	C
PSS35 111	4x300	4x300	2x300	86	61	52	53	55	55	44	41	34	5/8	5/8	D
PSS35 112	5x300	5x300	2x300	86	61	62	53	55	55	51	48	41	16	28	D
PSS35 114	7x300	7x300	2x300	86	61	71	53	55	55	59	56	49	16	28	C
PSS40 111	4x300	4x300	2x300	86	61	52	53	55	55	44	41	34	5/8	5/8	D
PSS40 112	5x300	5x300	2x300	86	61	62	53	55	55	51	48	41	16	28	C
PSS40 114	7x300	7x300	2x300	86	61	71	53	55	55	59	56	49	16	28	B
PSS35 211	4x550	4x550	2x550	136	61	52	103	55	55	44	41	34	16	28	D
PSS35 212	5x550	5x550	2x550	136	61	62	103	55	55	51	48	41	16	35	D
PSS35 214	7x550	7x550	2x550	136	61	71	103	55	55	59	56	49	16	35	C
PSS40 211	4x550	4x550	2x550	136	61	52	103	55	55	44	41	34	16	28	D
PSS40 212	5x550	5x550	2x550	136	61	62	103	55	55	51	48	41	16	35	C
PSS40 214	7x550	7x550	2x550	136	61	71	103	55	55	59	56	49	16	35	B
PSS35 311	4x800	4x800	2x800	186	61	52	153	58	55	49	45	34	16	35	D
PSS35 312	5x800	5x800	2x800	186	61	62	153	58	55	55	51	41	16	35	D
PSS35 314	7x800	7x800	2x800	186	61	71	153	58	55	63	59	49	22	42	C
PSS40 311	4x800	4x800	2x800	186	61	52	153	58	55	49	45	34	16	35	D
PSS40 312	5x800	5x800	2x800	186	61	62	153	58	55	55	51	41	16	35	C
PSS40 314	7x800	7x800	2x800	186	61	71	153	58	55	63	59	49	22	42	B
PSS45 211	6x700	6x700	2x700	166	80	52	133	75	72	49	45	34	16	35	D
PSS45 212	7x700	7x700	2x700	166	80	62	133	75	72	55	51	41	22	42	C
PSS45 214	9x700	9x700	2x700	166	80	71	133	75	72	63	59	49	22	54	B
PSS50 211	6x700	6x700	2x700	166	80	52	133	75	72	49	45	34	16	35	E
PSS50 212	7x700	7x700	2x700	166	80	62	133	75	72	55	51	41	22	42	E
PSS50 214	9x700	9x700	2x700	166	80	71	133	75	72	63	59	49	22	54	D
PSS45 312	7x1050	7x1050	2x1050	237	80	62	198	75	72	55	51	41	22	42	C
PSS45 314	9x1050	9x1050	2x1050	237	80	71	198	75	72	63	59	49	28	54	B
PSS50 312	7x1050	7x1050	2x1050	237	80	62	198	75	72	55	51	41	28	42	E
PSS50 314	9x1050	9x1050	2x1050	237	80	71	198	75	72	63	59	49	28	42	D
PSS45 412	7X1350	7X1350	2X1350	302	80	62	130	75	72	55	51	41	28	54	C
PSS45 414	9X1350	9X1350	2X1350	302	80	71	130	75	72	63	59	49	28	64	B
PSS50 412	7X1350	7X1350	2X1350	302	80	62	130	75	72	55	51	41	28	54	E
PSS50 414	9X1350	9X1350	2X1350	302	80	71	130	75	72	63	59	49	35	64	D

PSO Serisi
PSO Serie

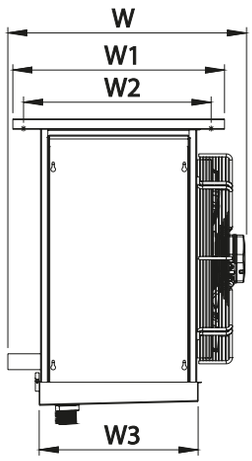
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

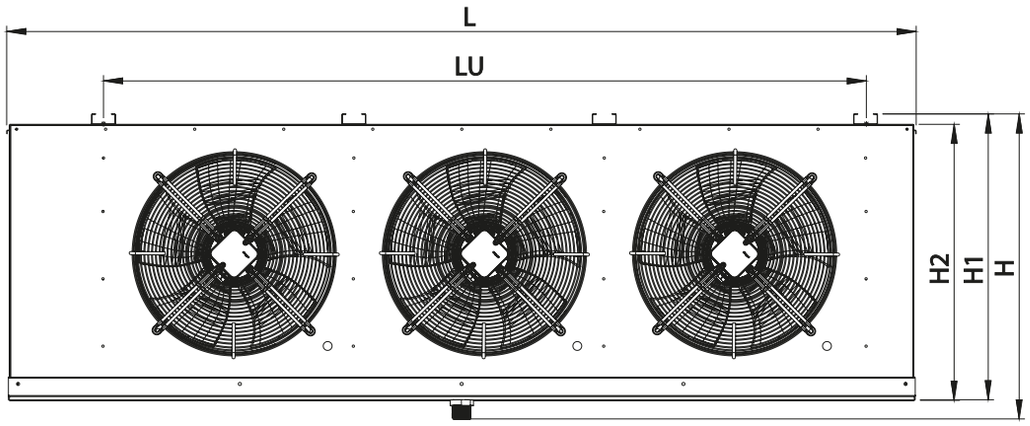
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8"

Hatve / Fin Spacing : 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Fanlar Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1 Te= 0°C T0= +10°C	SC2 Te= -8°C T0= 0°C	SC3 Te= -25°C T0= -18°C	SC4 Te= -31°C T0= -25°C	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)
PSO30 111	5,09	1,7	1.795	1.186	975	792	1.548	1	300	72	41	11	24
PSO30 112	6,78	2,2	2.363	1.571	1.263	1.016	1.488		300	72	41	11	23
PSO30 211	10,18	3,40	3.590	2.372	1.950	1.584	3.096	2	300	144	44	11	24
PSO30 212	13,56	4,46	4.726	3.142	2.526	2.032	2.976		300	144	44	11	23
PSO30 311	15,27	5,10	5.385	3.558	2.925	2.376	4.644	3	300	216	46	11	24
PSO30 312	20,34	6,69	7.089	4.713	3.789	3.048	4.464		300	216	46	11	23
PSO35 111	7,27	2,4	3.084	2.083	1.630	1.298	2.871		350	165	44	13	28
PSO35 112	9,69	3,2	3.591	2.368	1.958	1.591	2.757		350	165	44	12	27
PSO35 114	14,53	4,8	5.086	3.420	2.737	2.195	2.557	1	350	165	44	11	25
PSO40 111	7,24	2,4	3.382	2.278	1.770	1.412	3.550		400	160	51	14	30
PSO40 112	9,69	3,2	3.990	2.615	2.154	1.742	3.363		400	160	51	13	28
PSO40 114	14,53	4,8	5.589	3.790	2.985	2.393	3.063		400	160	51	12	26
PSO35 211	14,54	4,80	6.168	4.166	3.260	2.596	5.742		350	330	47	13	28
PSO35 212	19,38	6,40	7.182	4.736	3.916	3.182	5.514		350	330	47	12	27
PSO35 214	29,06	9,60	10.172	6.840	5.474	4.390	5.114	2	350	330	47	11	25
PSO40 211	14,48	4,80	6.764	4.556	3.540	2.824	7.100		400	320	54	14	30
PSO40 212	19,38	6,40	7.980	5.230	4.308	3.484	6.726		400	320	54	13	28
PSO40 214	29,06	9,60	11.178	7.580	5.970	4.786	6.126		400	320	54	12	26
PSO35 311	21,81	7,20	9.252	6.249	4.890	3.894	8.613		350	495	49	13	28
PSO35 312	29,07	9,60	10.773	7.104	5.874	4.773	8.271		350	495	49	12	27
PSO35 314	43,59	14,40	15.258	10.260	8.211	6.585	7.671	3	350	495	49	11	25
PSO40 311	21,72	7,20	10.146	6.834	5.310	4.236	10.650		400	480	56	14	30
PSO40 312	29,07	9,60	11.970	7.845	6.462	5.226	10.089		400	480	56	13	28
PSO40 314	43,59	14,40	16.767	11.370	8.955	7.179	9.189		400	480	56	12	26
PSO45 211	25,20	8,3	10.680	7.160	5.820	4.730	10.130		450	490	50	16	33
PSO45 212	33,60	11,1	13.247	8.724	7.163	5.789	9.850		450	490	50	15	33
PSO45 214	50,39	16,7	17.365	11.548	9.548	7.782	9.275	2	450	490	50	14	31
PSO50 211	25,20	8,3	12.740	8.540	6.940	5.650	15.330		500	1.180	59	21	46
PSO50 212	33,60	11,1	16.170	10.840	8.810	7.160	14.590		500	1.180	59	20	43
PSO50 214	50,39	16,7	21.770	14.600	11.860	9.650	13.160		500	1.180	59	18	39
PSO45 312	50,40	16,67	19.871	13.086	10.745	8.684	14.775		450	735	52	15	33
PSO45 314	75,59	25,01	26.048	17.322	14.322	11.673	13.913	3	450	735	52	14	31
PSO50 312	50,38	16,7	24.250	16.260	13.210	10.750	21.880		500	1.770	61	20	43
PSO50 314	75,58	25,0	32.650	21.900	17.790	14.470	19.750		500	1.770	61	18	39
PSO45 412	67,20	22,22	26.494	17.448	14.326	11.578	19.700		450	980	53	15	33
PSO45 414	100,78	33,34	34.730	23.096	19.096	15.564	18.550	4	450	980	53	14	31
PSO50 412	67,18	22,2	32.340	21.690	17.620	14.330	29.180		500	2.360	62	20	43
PSO50 414	100,77	33,3	43.540	29.200	23.720	19.300	26.330		500	2.360	62	18	39





Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions									Bağlantılar Connections		Enerji Sınıfı Energy Consumption
	B1	B2													
	Batarya Coil	Batarya Coil	Tava D.Tray	L	H	W	LU	H1	H2	W1	W2	W3	Giriş Input	Çıkış Output	
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(mm/")	(mm/")	
PSO30 111	3x250	3x250	2x250	77	51	47	48	46	46	39	36	29	5/8	5/8	D
PSO30 112	4x250	4x250	2x250	77	51	57	48	46	46	46	43	36	5/8	5/8	C
PSO30 211	3x500	3x500	2x500	121	51	47	93	46	46	39	36	29	5/8	28	D
PSO30 212	4x500	4x500	2x500	121	51	57	93	46	46	46	43	36	16	28	C
PSO30 311	3x750	3x750	2x750	166	51	47	138	46	46	39	36	29	16	28	D
PSO30 312	4x750	4x750	2x750	166	51	57	138	46	46	46	43	36	16	35	C
PSO35 111	4x300	4x300	2x300	86	61	52	53	55	55	44	41	34	5/8	5/8	D
PSO35 112	5x300	5x300	2x300	86	61	62	53	55	55	51	48	41	16	28	D
PSO35 114	7x300	7x300	2x300	86	61	71	53	55	55	59	56	49	16	28	C
PSO40 111	4x300	4x300	2x300	86	61	52	53	55	55	44	41	34	5/8	5/8	D
PSO40 112	5x300	5x300	2x300	86	61	62	53	55	55	51	48	41	16	28	D
PSO40 114	7x300	7x300	2x300	86	61	71	53	55	55	59	56	49	16	28	B
PSO35 211	4x550	4x550	2x550	136	61	52	103	55	55	44	41	34	16	28	D
PSO35 212	5x550	5x550	2x550	136	61	62	103	55	55	51	48	41	16	35	D
PSO35 214	7x550	7x550	2x550	136	61	71	103	55	55	59	56	49	16	35	C
PSO40 211	4x550	4x550	2x550	136	61	52	103	55	55	44	41	34	16	28	D
PSO40 212	5x550	5x550	2x550	136	61	62	103	55	55	51	48	41	16	35	D
PSO40 214	7x550	7x550	2x550	136	61	71	103	55	55	59	56	49	16	35	B
PSO35 311	4x800	4x800	2x800	186	61	52	153	58	55	49	45	34	16	35	D
PSO35 312	5x800	5x800	2x800	186	61	62	153	58	55	55	51	41	16	35	D
PSO35 314	7x800	7x800	2x800	186	61	71	153	58	55	63	59	49	22	42	C
PSO40 311	4x800	4x800	2x800	186	61	52	153	58	55	49	45	34	16	35	D
PSO40 312	5x800	5x800	2x800	186	61	62	153	58	55	55	51	41	16	35	D
PSO40 314	7x800	7x800	2x800	186	61	71	153	58	55	63	59	49	22	42	B
PSO45 211	6x700	6x700	2x700	166	80	52	133	75	72	49	45	34	16	28	D
PSO45 212	7x700	7x700	2x700	166	80	62	133	75	72	55	51	41	16	28	C
PSO45 214	9x700	9x700	2x700	166	80	71	133	75	72	63	59	49	22	54	B
PSO50 211	6x700	6x700	2x700	166	80	52	133	75	72	49	45	34	16	35	E
PSO50 212	7x700	7x700	2x700	166	80	62	133	75	72	55	51	41	22	42	E
PSO50 214	9x700	9x700	2x700	166	80	71	133	75	72	63	59	49	22	54	D
PSO45 312	7x1050	7x1050	2x1050	237	80	62	198	75	72	55	51	41	22	35	C
PSO45 314	9x1050	9x1050	2x1050	237	80	71	198	75	72	63	59	49	28	54	B
PSO50 312	7x1050	7x1050	2x1050	237	80	62	198	75	72	55	51	41	22	42	E
PSO50 314	9x1050	9x1050	2x1050	237	80	71	198	75	72	63	59	49	28	54	D
PSO45 412	7X1350	7X1350	2X1350	302	80	62	130	75	72	55	51	41	28	54	C
PSO45 414	9X1350	9X1350	2X1350	302	80	71	130	75	72	63	59	49	28	64	B
PSO50 412	7X1350	7X1350	2X1350	302	80	62	130	75	72	55	51	41	28	54	E
PSO50 414	9X1350	9X1350	2X1350	302	80	71	130	75	72	63	59	49	35	64	D

NEW GENERATION COOLERS

Yeni Nesil Soğutucular

BUZÇELİK
THERMIC EQUIPMENTS INDUSTRY

TAVAN TİPİ SOĞUTUCULAR

Ceiling Type Unit Coolers

KTD-KTA-MTA-MTS-KCD-KCK-MCA-MCS SERIES

BATARYA

- Bakır borular Ø3/8" ve Ø1/2"
- V-tipi alüminyum lamel.
- Lamel araları 6mm-8mm tasarlanmıştır.
- Giriş - çıkış kolektör malzemesi bakırdır.
- İzin verilen en yüksek çalışma basıncı Ps=21 Bar.
- Şaşırtmalı boru dizilimi.
- Soğutucular R404A, R407C, R407F, R507F, R22, Rl 34A, R449A, R290A, R4 l OA soğutucu gazlarla çalışmaya uygun tasarım.
- Soğutucu akışkan distribütörü.

Coil

- Ø3/8" and Ø1/2" copper tubes.
- "V" type aluminum fins.
- The finned coils are designed with aluminum fins spaced at 6mm ar 8mm, crimped onto copper tubes.
- Header inlet and outlet tube connections made of copper.
- Maximum operating pressure 21 bar.
- Staggered copper tubes.
- The coil circuits are designed far refrigerants R404A, R407F, R507C, R22, Rl 34A.
- Refrigerant distributar.

KASETLEME

- Galvaniz çelik üzerine elektrostatik RAL 9016 boyalıdır.
- İsteğe bağlı Paslanmaz Çelik ve Alüminyum kaset seçeneği.
- Sökülebilir yan kapaklar
- Menteşeli/Katlanır drenaj tavası tüm modellerde standarttır.
- Ara drenaj tavası.

Casing

- Electrostatic powder coated RAL 9016 galvanized steeL
- Stainless steel and aluminum casing as optionaL
- Side panels are removable.
- Hinged/Folding drain tray is standard for ali models.
- Intermediate drain pan.

FAN

- Oda boyutlarına göre farklı fan çapı ve fan sayısına sahip soğutucu seçenekleri.
- Opsiyonel seçimler Buzçelik Teknik Uzmanı tarafından teyit edilmelidir
- Standart veya düşük ses seviyeli bakım gerektirmeyen fan seçeneği.
- İsteğe bağlı AC ya da EC fan motor seçenekleri.
- Koruma sınıfı IP54, fan konstrüksiyonu izolasyon malzeme sınıfı F
- Opsiyonel olarak seçilebilir fan aksesuar çeşitleri (Axicool fanlar, FlowGrid gürültü düşürücüler vb.)
- Çalışma aralığı -40°C/+50°C'dir

Fan

- Selection of a unit cooler with various fan number/diameter combinati-ons offering the dimensional and air throw characteristics besi adapted to the size of the cold room.
- Selections should be confirmed by your Buzçelik Technical Specialist.
- Standard or low noise level are available.
- Different kinds of motors available as optionaL (EC or AC)
- Motor protection IP54 insulation class F.
- Different kinds of accessories available as optionaL (Axicool Fans, FlowGrid etc.)
- Working conditions -40"C/+50"C.

DEFROST

- B1 defrost sistemi 0°C/+5°C oda sıcaklığındaki uygulama aralığı içindir. Defrost ısıtıcılar yalnızca batarya üzerine montaj edilir
- B2 defrost sistemi -34°C/0°C oda sıcaklığı uygulama aralığı içindir. Defrost ısıtıcılar batarya ve drenaj tavasına monte edilir.
- Drenaj hattı ısıtıcısı, fan davlumbaz ısıtıcısı, sıcak gaz defrost sistemi ve sulu defrost sistemi opsiyoneldir
- Defrost uygulaması hızlı ve verimli defrost için homojen ısı dağılımı sağlar
- +4°C'den büyük veya eşit oda sıcaklıklarında isteğe bağlı olarak tava derinliği arttırılmış soğutucu tasarımı ile sulu defrost seçeneği.
- - B 1 (Factory) : Hafif elektrik defrost (Batarya)
- - B2 (Factory): Elektrik defrost (Batarya + Drenaj Tavası)
- - HGD (Factory) Sıcak gaz defrost (Batarya ve Drenaj Tavası)
- - WD (Factory) Sulu defrost

Defrosting

- B1 type defrost system suitable for 0°C/+5°C cold room applications.
- Defrost heaters are applied on heat exchanger coiL
- B2 type defrost system suitable for -34°C/O°C frozen room applications.
- Defrost heaters are applied on both heat exchanger coil and drain tray.
- Drain line heaters, fan housing heaters, hol gas defrost system and water defrost system are optionaL
- This facility enables homogenous heat distribution for fası and efficient defrosting.
- A water defrost (WD) option is available for room temperature equal to or greater than +4°C. in this case the unit cooler depth is increa-sed amount of depth.
- B1 (Factory): Light electric defrost
- B2 (Factory): Electric defrost (coil + drain pan)
- HGD (Factory) Hol gas (coil and drain pan)
- WD (Factory): Water defrost

KAPASİTE

Nominal kapasiteler SC1-SC2-SC3-SC4 koşullarında R404A gaza göre Eurovent EN 328 standartları dikkate alınarak verilmiştir.

Capacity

The nominal capacities calculated according to Eurovent EN328 standards that refer to SCI -SC2-SC3-SC4 conditions and are valid far R404A.

SEÇENEKLER

- Farklı dış kabin rengi,
- Farklı boru et kalınlığı ve hatve,
- Monofaze 220V 1 ~ 50Hz, Trifaze 400V 3~ 50Hz fan seçeneği.
- Katalogda belirtilmeyen özel ürünler için lütfen satış departmanı ile irtibata geçin.

Options

- Different casing color.
- Other tube wall thicknesses and fin spacing on request.
- Mono phase 220V 1 ~ 50Hz fan or three phase 400V 3~ 50Hz fan.
- Please keep in touch with our sales department about your special needs that are not mentioned in the catalogue.

NOT

Montaj, Bakım - Taşıma ve Kaldırma detayları için kullanım Kılavuzuna başvurunuz.

Note

Please read "Installation, Operation and Maintenance Instructions" for mounting and maintenance.

AKSESUARLAR

- Bataryada ve tavada sıcak gaz defrost,
- Yalıtım tavası,
- Paslanmaz çelik kabin,
- Epoxy boya,
- Fan kablo rezistansı,
- Drenaj hattı kablo rezistans.

Accessories

- Hol gas defrost in coil and drip tray.
- Insulated drip tray.
- Casing made of stainless steeL
- Epoxy resin coated aluminum fins.
- Fan cable heaters.
- Drain line cable heater.

Talep Üzerine Listelenen Özelliklerin Üretimi Mümkündür. Yardım İçin Lütfen Buzçelik Satış Birimi İle İletişime Geçiniz. - Seçimler Buzçelik Teknik Uzmanınız tarafından onaylanmalıdır.
Options As Listed Are Available On Request Far Assistance Please Contact Buzçelik Branch Glycol options available - Selections should be confirmed by your Buzçelik Technical Specialist

ADLANDIRMA
CLASSIFICATION

M T A 40 21 2

Geometri Geometry	Tip Type	Hatve Aralığı Fin Space	Fan Çapı Fan Diameter	Fan Dizisi Fan Array	Ürün Numarası Product Number
K : 32x28-3/8" M : 40x35-1 /2"	T : Tek Üflemeli C : Çift Üflemeli T : Single Discharge C : Dual Discharge	D : 4 mm A : 6 mm S : 8 mm	0 ... cm	Sütun x Satır Column x Row	

KAPASİTE STANDARTLARI
CAPACITY STANDARD

Nominal kapasite değerleri Eurovent standart şartları EN328'de tanımlanan ΔT1 esasına göre verilmiştir.
Nominal capacities in the catalog are given according to ΔT1 as defineci in EN 328 standard conditions of Eurovent.

ΔT1 = (Oda Sıcaklığı) - (Evaporasyon Sıcaklığı)
ΔT1 = (Room Temp.) - (Evaporation Temp.)

Tablo-1 : Standart Şartlar (Eurovent EN 328)
Table-1: Standard Conditions (Eurovent EN 328)

Freon için Standart Şartlar Standard Conditions tor Refrigerants	Oda Sıcaklığı °C Room Temperature	Evaporasyon Sıcaklığı °C Evaporating Temp.
SC1	10	0
SC2	0	-8
SC3	-18	-25
SC4	-25	-31

TABLO-2 / Table-2

Oda Sıcaklığına Bağlı Olarak Önerilen Lamel Aralıkları
Recommended Efficient Fin Spacings According to Room Temperatures

Eurovent 328 Standart	Lamel Aralığı Fin Spacing	Oda Sıcaklığı (T1) Room Temp.(T1)
SC1	4mm ~ 6mm	10°C
SC2	6mm ~ 8mm	0 °C
SC3	8mm ~ 10mm	-18 °C
SC4	8 mm	-25 °C

TABLO-3 / Table-3

Sıcaklık ve Soğutucu için Düzeltme Tablosu Temperature and Refrigerant Correction Table												
$\Delta T_{,1}$(°C)		K_1 Sıcaklık Düzeltme Faktörü Condensation Temperature °C								K_2 Soğutucu Faktör Refrigerant Factor		
		4	5	6	7	8	10	12	14	R404A/R507	R134A	R22
Evaporasyon Sıcaklığı T_2 (°C) Evaporation Temperature T_2 (°C)	10	0,67	0,83	0,99	1,15	1,32	1,64	1,96	2,29	1	0,89	0,97
	5	0,63	0,78	0,94	1, 1	1,26	1,57	1,88	2,2	1	0,89	0,97
	o	0,6	0,75	0,9	1,06	1,2	1,52 ($K_{1\ SC1}$)	1,82	2,12	1	0,89	0,97
	-5	0,57	0,72	0,86	1,01	1,1 5	1,44	1,74	2,03	1	0,88	0,97
	-8	0,5	0,63	0,76	0,88	1,00 ($K_{1\ SC2}$)	1,26	1,51	1,76	1	0,87	0,97
	-10	0,49	0,6	0,72	0,85	0,97	1,22	1,47	1,71	1	0,86	0,97
	-15	0,47	0,59	0,71	0,82	0,94	1,17	1,4	1,63	1	0,85	0,97
	-20	0,44	0,55	0,66	0,77	0,88	1,1	1,32	1,54	1	0,83	0,97
	-25	0,42	0,52	0,62	0,73 ($K_{1\ SC3}$)	0,83	1,04	1,25	1,46	1	0,81	0,97
	-30	0,39	0,49	0,58 ($K_{1\ SC4}$)	0,69	0,78	0,97	1, 17	1,36	1	-	0,97
	-35	0,35	0,45	0,54	0,63	0,72	0,9	1,08	1,26	1	-	0,97
	-40	0,33	0,41	0,49	0,57	0,65	0,81	0,97	1,13	1	-	0,97

TABLO-4 / Table-4

Lamel Malzemesi için Düzeltme Faktörleri Fin Material Correction Factors			
Lamel Malzemesi Fin Material	Alüminyum Aluminum	Kaplı Alüminyum Coated Aluminum	Bakır Copper
K_3	1,00	0,97	1,03

ÖRNEK SEÇİM
Selection Example

Evaporatör çalışma şartları stadart şartların dışında ise aşağıdaki formülasyon ve tablolar kullanılarak ürün kapasitesi SC2 şartına dönüştürülebilir Bu durumda oda sıcaklığına uygun lamel aralığı belirlenip SC2 kapasite değeri ile ürün seçimi önerilir
Soğutma Yükü Q Oda = 8,00 kW
Soğutucu Akışkan = R134A
Oda Sıcaklığı T1 =+5 °C
Evaporasyon Sıcaklığı T2 = -5 °C
ΔT = T1 - T2 = (5)-(-5) =10 °C
Mevcut şartlara yakın olan SC2 Eurovent Standardı seçilir
Tablo-2: 6mm Lamel seçildi
Tablo-3: ΔT =10 °C => K1 =1,44
Tablo-3: K1 ,SC2= 1,00
Tablo-3: Soğutkan R1 34A => K2=0,89
Fin Malzemesi Al
Tablo-4 : K3=1,00
QSC2 = (QODA/K2) x (K1 ,SC2/K1) / K3 = 6,24 kW
Secilen Soğutucu MTA35 211 (SC2 = 6 350Watt)

If the operating condition of the evaporator is different than Eurovent standards, please use the following formu la and tabi es to convert your capacity to SC2 conditions. 1 n this case, the evaporator can be selected from suitable fın space and SC2 columns.
Cooling Capacity Q Room = 8,00 kW
Refrigerant = R134A
Room Temperature: T1 =+5°C
Evaporation Temperature: T2 =-5°C
ΔT = T1 - T 2 = (5)-(-5) = 7 0 °C
Closest Eurovent Standard is SC2.
Table-2 : 6mm Fin Spacing is chosen.
Table-3 : ΔT=10°C=>K1=1,44
Table-3 : K1,SC2= 1,00
Table-3 : Refrigerant R1 34A => K2=0,89
Fin Material Al
Table-4 : K3=1,00
QSC2 = (QODA/K2) x (K1,SC2/K1) / K3 = 6,24 kW
Selected Unit Cooler MTA35 211 (SC2 = 6 350Watt)

ÜRÜN KAPASİTE ARALIĞI
CAPACITY RANGE

KTD-KTA Serisi
KTD-KTA Serie

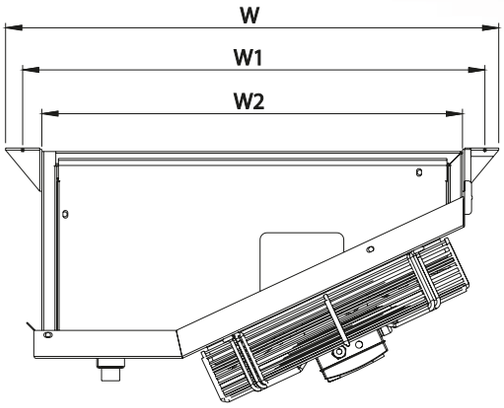
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

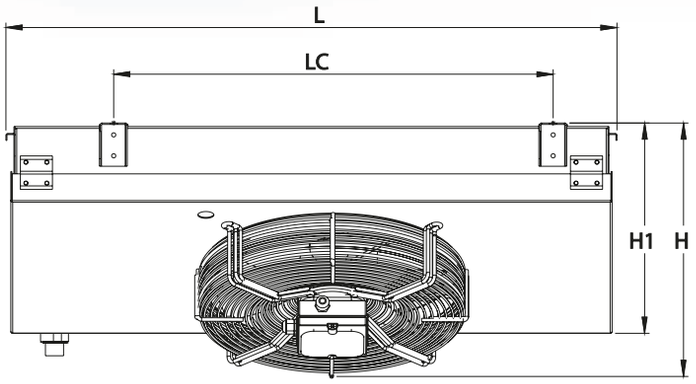
Batarya Özellikleri
Heat Exchanger Specifications

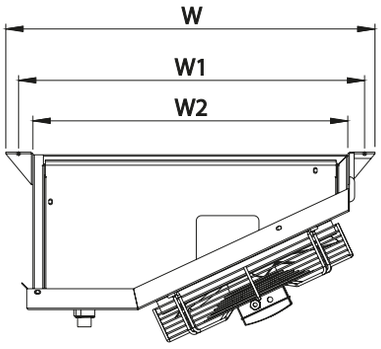
Bakır Boru / Copper Pipe : 3/8”

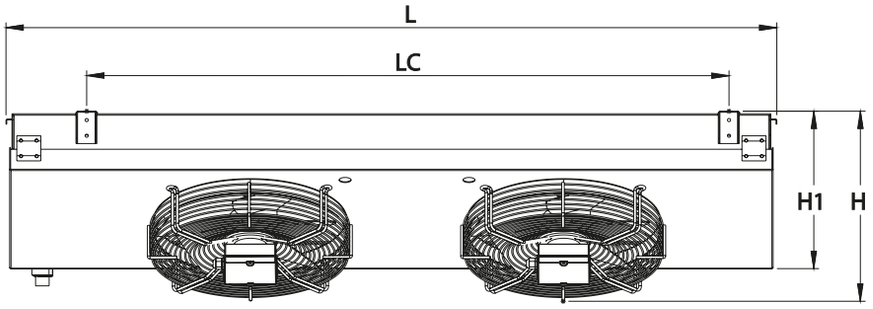
Hatve / Fin Spacing : 4 mm - 6 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **230V AC 1300-1400 d/d-rpm**					**Üfleme Mesafesi** Air Throw
			SC1 Te= 0°C T0= +10°C	**SC2** Te= -8°C T0= 0°C	**SC3** Te= -25°C T0= -18°C	**SC4** Te= -31°C T0= -25°C	**Hava Debisi** Air Flow	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Ses Basınç Seviyesi** Sound Pressure Level	
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)
KTD25 111	3,50	0,5	1.121	764	-	-	500	1	250	69	46	4
KTD30 111	4,25	0,6	1.667	1.116	-	-	854		300	72	41	6
KTD30 112	6,37	0,9	2.313	1.574	-	-	1132		300	72	41	8
KTD25 211	7,00	1,0	2.242	1.528	-	-	1.000	2	250	138	49	4
KTD30 211	8,50	1,2	3.334	2.232	-	-	1.708		300	144	44	6
KTD30 212	12,74	1,8	4.626	3.148	-	-	2.264		300	144	44	8
KTA25 111	2,92	0,6	1.118	758	594	-	630	1	250	69	46	5
KTA30 111	3,66	0,7	1.690	1.126	832	-	1105		300	72	41	8
KTA30 112	5,49	1,1	2.066	1.407	1.126	-	936		300	72	41	7
KTA25 211	5,84	1,2	2.236	1.516	1.188	-	1.260	2	250	138	49	5
KTA30 211	7,32	1,4	3.380	2.252	1.664	-	2.210		300	144	44	8
KTA30 212	10,98	2,2	4.132	2.814	2.252	-	1.872		300	144	44	7









Model Model	**Defrost Isıtıcılar** Electric Defrost Heater			**Boyutlar** Dimensions							**Enerji Sınıfı** Energy Consumption
	B1	B2									
	Batarya Coil	**Batarya** Coil	**Tava** D.Tray	**L**	**H**	**W**	**LC**	**H1**	**W1**	**W2**	
	(nxW)	**(nxW)**	**(nxW)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	
KTD25 111	1X200	-	-	60	30	70	36	25	68	60	E
KTD30 111	1X250	-	-	68	30	70	43	25	68	60	E
KTD30 112	2X350	-	-	88	30	70	63	25	68	60	D
KTD25 211	2X400	-	-	94	30	70	69	25	68	60	E
KTD30 211	2X500	-	-	108	30	70	83	25	68	60	E
KTD30 212	2X700	-	-	148	30	70	123	25	68	60	D
KTA25 111	2X250	2X250	2X250	68	30	70	43	25	68	60	E
KTA30 111	2X300	2X300	2X300	78	30	70	53	25	68	60	D
KTA30 112	3X300	3X300	2X300	78	30	70	53	25	68	60	D
KTA25 211	2X500	2X500	2X500	108	30	70	83	25	68	60	E
KTA30 211	2X500	2X500	2X500	128	30	70	103	25	68	60	D
KTA30 212	3X600	3X300	2X600	128	30	70	103	25	68	60	D

MTA-MTS Serisi
MTA-MTS Serie

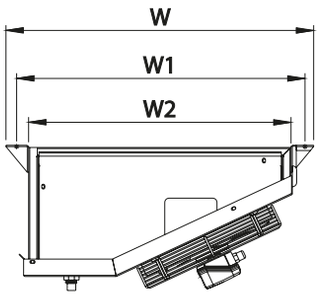
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

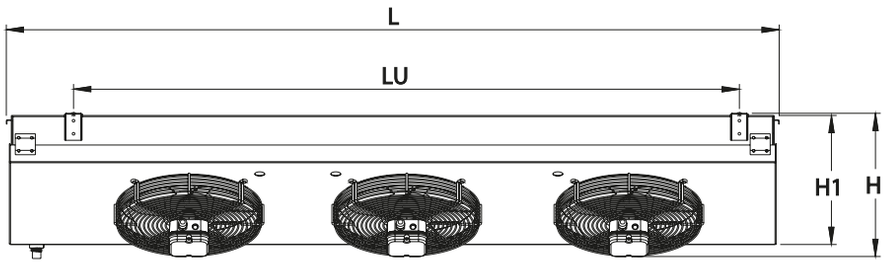
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 6 mm - 8 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **230V AC 1300-1400 d/d-rpm**					**Üfleme Mesafesi** Air Throw
			SC1 Te= 0°C T0= +10°C	**SC2** Te= -8°C T0= 0°C	**SC3** Te= -25°C T0= -18°C	**SC4** Te= -31°C T0= -25°C	**Hava Debisi** Air Flow	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Ses Basınç Seviyesi** Sound Pressure Level	
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)
MTA30 111	5,57	1,4	2.340	1.580	1.202	-	1.209	1	300	72	41	9
MTA30 112	6,96	1,7	2.560	1.702	1.400	-	1.127		300	72	41	8
MTA35 111	6,68	1,6	3.300	2.191	1.538	-	2.010		350	165	44	9
MTA35 112	8,35	2,0	3.736	2.541	2.046	-	1.830		350	165	44	8
MTA30 211	11,14	2,8	4.680	3.160	2.404	-	2.418	2	300	144	44	9
MTA30 212	13,92	3,4	5.120	3.404	2.800	-	2.254		300	144	44	8
MTA35 211	13,36	3,2	6.600	4.382	3.076	-	4.020		350	330	47	9
MTA35 212	16,70	4,0	7.472	5.082	4.092	-	3.660		350	330	47	8
MTA30 311	16,71	4,2	7.020	4.740	3.606	-	3.627	3	300	216	46	9
MTA30 312	20,88	5,1	7.680	5.106	4.200	-	3.381		300	216	46	8
MTS30 111	4,29	1,4	2.024	1.368	1.067	850	1.264	1	300	72	41	9
MTS30 112	5,37	1,7	2.186	1.450	1.200	974	1.187		300	72	41	8
MTS35 111	5,16	1,6	2.891	1.927	1.393	1.095	2.135		350	165	44	9
MTS35 112	6,45	2,0	3.274	2.227	1.790	1.425	1.960		350	165	44	9
MTS30 211	8,58	2,8	4.048	2.736	2.134	1.700	2.528	2	300	144	44	9
MTS30 212	10,74	3,4	4.372	2.900	2.400	1.948	2.374		300	144	44	8
MTS35 211	10,32	3,2	5.782	3.854	2.786	2.190	4.270		350	330	47	10
MTS35 212	12,90	4,0	6.548	4.454	3.580	2.850	3.920		350	330	47	9
MTS30 311	12,87	4,2	6.072	4.104	3.201	2.550	3.792	3	300	216	46	9
MTS30 312	16,11	5,1	6.558	4.350	3.600	2.922	3.561		300	216	46	8





Model Model	**Defrost Isıtıcılar** Electric Defrost Heater			**Boyutlar** Dimensions							**Enerji Sınıfı** Energy Consumption
	B1	B2									
	Batarya Coil	**Batarya** Coil	**Tava** D.Tray	**L**	**H**	**W**	**LU**	**H1**	**W1**	**W2**	
	(nxW)	**(nxW)**	**(nxW)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	
MTA30 111	2X300	2X300	2X300	78	35	70	53	30	68	60	C
MTA30 112	3X300	3X300	2X300	78	35	70	53	30	68	60	C
MTA35 111	2X350	2X350	2X350	88	35	70	63	30	68	60	E
MTA35 112	3X350	3X350	2X350	88	35	70	63	30	68	60	D
MTA30 211	3X550	3X550	2X550	128	35	70	103	30	68	60	C
MTA30 212	3X550	3X550	2X550	128	35	70	103	30	68	60	C
MTA35 211	3X650	3X650	2X650	148	35	70	103	30	68	60	E
MTA35 212	3X650	3X650	2X650	148	35	70	103	30	68	60	D
MTA30 311	3X800	3X800	2X800	178	35	70	153	30	68	60	C
MTA30 312	3X800	3X800	2X800	178	35	70	153	30	68	60	C
MTS30 111	2X300	2X300	2X300	78	35	70	53	30	68	60	C
MTS30 112	3X300	3X300	2X300	78	35	70	53	30	68	60	C
MTS35 111	2X350	2X350	2X350	88	35	70	63	30	68	60	E
MTS35 112	3X350	3X350	2X350	88	35	70	63	30	68	60	D
MTS30 211	3X550	3X550	2X550	128	35	70	103	30	68	60	C
MTS30 212	3X550	3X550	2X550	128	35	70	103	30	68	60	C
MTS35 211	3X550	3X550	2X550	148	35	70	123	30	68	60	E
MTS35 212	3X650	3X650	2X650	148	35	70	123	30	68	60	D
MTS30 311	3X800	3X800	2X800	178	35	70	153	30	68	60	C
MTS30 312	3X800	3X800	2X800	178	35	70	153	30	68	60	C

KCD-KCA Serisi
KCD-KCA Serie

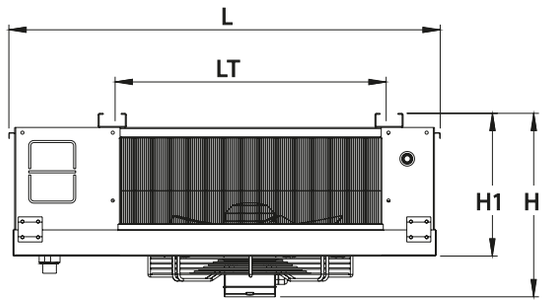
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

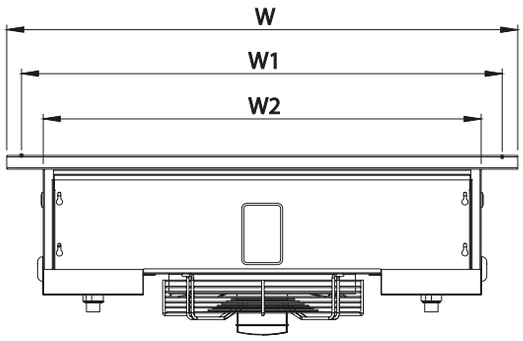
Batarya Özellikleri
Heat Exchanger Specifications

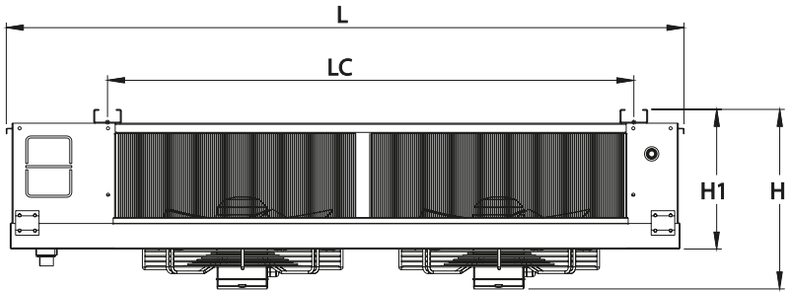
Bakır Boru / Copper Pipe : 3/8"

Hatve / Fin Spacing : 4 mm - 6 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **230V AC 1300-1400 d/d-rpm**					**Üfleme Mesafesi** Air Throw
			SC1 Te= 0°C T0= +10°C	**SC2** Te= -8°C T0= 0°C	**SC3** Te= -25°C T0= -18°C	**SC4** Te= -31°C T0= -25°C	**Hava Debisi** Air Flow	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Ses Basınç Seviyesi** Sound Pressure Level	
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)
KCD25 111	7,16	1,0	1.838	1.257	-	-	800	1	250	69	46	7
KCD25 112	9,56	1,3	2.138	1.469	-	-	750		250	69	46	6
KCD30 111	10,60	1,5	3.338	2.250	-	-	1410		300	72	41	10
KCD30 112	15,92	2,2	3.986	2.745	-	-	1.295		300	72	41	9
KCD25 211	14,32	2,0	3.676	2.514	-	-	1.600	2	250	138	49	7
KCD25 212	19,12	2,6	4.276	2.938	-	-	1.500		250	138	49	6
KCD30 211	21,20	3,0	6.676	4.500	-	-	2.820		300	144	44	10
KCD30 212	31,84	4,4	7.972	5.490	-	-	2.590		300	144	44	9
KCA25 111	4,92	1,0	1.490	1.015	827	-	850	1	250	69	46	7
KCA25 112	6,60	1,3	1.809	1.235	992	-	800		250	69	46	7
KCA25 113	9,88	2,0	2.179	1.493	1.150	-	720		250	69	46	6
KCA30 111	6,60	1,3	2.570	1.737	1.363	-	1.434		300	72	41	10
KCA30 112	9,88	2,0	3.216	2.161	1.584	-	1.313		300	72	41	9
KCA35 111	7,30	1,5	3.590	2.397	1.766	-	2.423		350	165	44	11
KCA35 112	11,00	2,2	4.507	3.065	2.461	-	2.144		350	165	44	10
KCA25 211	9,84	2,0	2.980	2.030	1.654	-	1.700	2	250	138	49	7
KCA25 212	13,20	2,6	3.618	2.470	1.984	-	1.600		250	138	49	7
KCA25 213	19,76	4,0	4.358	2.986	2.300	-	1.440		250	138	49	6
KCA30 211	13,20	2,6	5.140	3.474	2.726	-	2.868		300	144	44	10
KCA30 212	19,76	4,0	6.432	4.322	3.168	-	2.626		300	144	44	9
KCA35 211	14,60	3,0	7.180	4.794	3.532	-	4.846		350	330	47	11
KCA35 212	22,00	4,4	9.014	6.130	4.922	-	4.288		350	330	47	10







Model Model	**Defrost Isıtıcılar** Electric Defrost Heater			**Boyutlar** Dimensions								**Enerji Sınıfı** Energy Consumption
	B1	B2										
	Batarya Coil	**Batarya** Coil	**Tava** D.Tray	**L**	**H**	**W**	**LT**	**LC**	**H1**	**W1**	**W2**	
	(nxW)	**(nxW)**	**(nxW)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	
KCD25 111	2X250	-	-	78	37	100	48		27	96	86	D
KCD25 112	4X250	-	-	78	37	100	48		27	96	86	D
KCD30 111	4X300	-	-	83	37	100	53		27	96	86	C
KCD30 112	4X300	-	-	83	37	100	53		27	96	86	B
KCD25 211	4X500	-	-	123	37	100		93	27	96	86	D
KCD25 212	4X500	-	-	123	37	100		93	27	96	86	D
KCD30 211	4X600	-	-	133	37	100		103	27	96	86	C
KCD30 212	4X600	-	-	128	37	100		103	27	96	86	B
KCA25 111	2X250	2X250	2X250	78	37	100	48	--	27	96	86	D
KCA25 112	2X250	2X250	2X250	78	37	100	48	--	27	96	86	D
KCA25 113	4X250	4X250	2X250	78	37	100	48	--	27	96	86	D
KCA30 111	2X250	2X250	2X250	78	37	100	48	--	27	96	86	C
KCA30 112	4X250	4X250	2X250	78	37	100	48	--	27	96	86	C
KCA35 111	4X250	4X250	2X250	83	37	100	53	--	27	96	86	D
KCA35 112	4X250	4X250	2X250	83	37	100	53	--	27	96	86	D
KCA25 211	4X500	4X500	2X500	123	37	100	--	93	27	96	86	D
KCA25 212	4X500	4X500	2X500	123	37	100	--	93	27	96	86	D
KCA25 213	4X500	4X500	2X500	123	37	100	--	93	27	96	86	D
KCA30 211	4X500	4X500	2X500	123	37	100	--	93	27	96	86	C
KCA30 212	4X500	4X500	2X500	123	37	100	--	93	27	96	86	C
KCA35 211	4X500	4X500	2X500	133	37	100	--	103	27	96	86	D
KCA35 212	4X500	4X500	2X500	133	37	100	--	103	27	96	86	D

MCA-MCS Serisi
MCA-MCS Serie

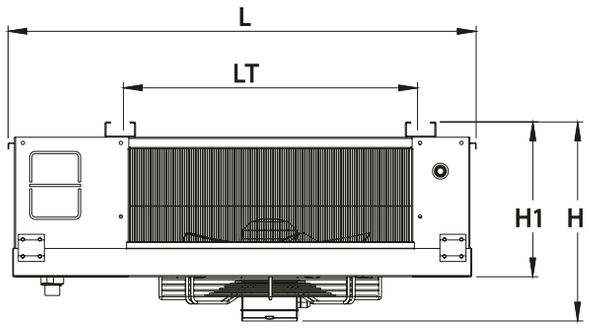
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

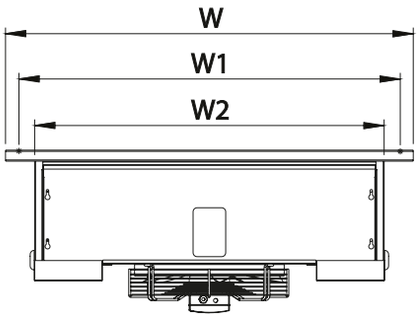
Batarya Özellikleri
Heat Exchanger Specifications

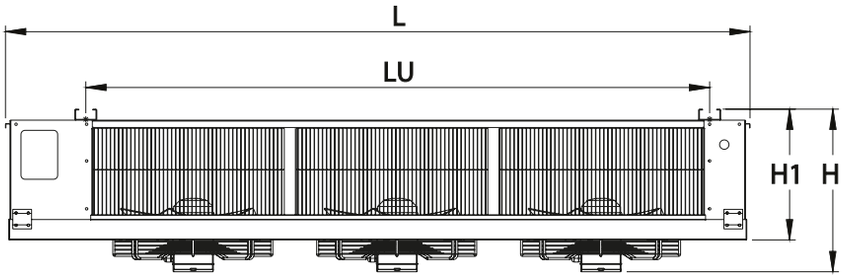
Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 6 mm - 8 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **230V AC 1300-1400 d/d-rpm**					**Üfleme Mesafesi** Air Throw
			SC1 Te= 0°C T0= +10°C	**SC2** Te= -8°C T0= 0°C	**SC3** Te= -25°C T0= -18°C	**SC4** Te= -31°C T0= -25°C	**Hava Debisi** Air Flow	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Toplam Fan Gücü** Total Fan Elec.t Power	**Ses Basınç Seviyesi** Sound Pressure Level	
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m3/h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)
MCA35 111	11,14	2,7	4.896	3.309	2.542	-	2.583	1	350	165	44	12
MCA35 211	22,28	5,4	9.792	6.618	5.084	-	5.166	2	350	330	44	12
MCA35 311	33,42	8,1	14.688	9.927	7.626	-	7.749	3	350	495	44	12
MCA40 111	13,40	3,3	6.081	4.075	2.976	-	3.328		400	160	51	13
MCA45 111	17,80	4,3	8.215	5.576	4.473	-	4.564	1	450	245	47	14
MCA50 111	20,80	5,1	11.109	7.472	5.700	-	6.900		500	590	56	22
MCA40 211	26,80	6,6	12.162	8.150	5.952	-	6.656		400	320	54	13
MCA45 211	35,60	8,6	16.430	11.152	8.946	-	9.128	2	450	490	50	14
MCA50 211	41,60	10,2	22.218	14.944	11.400	-	13.800		500	1.180	59	19
MCA40 311	40,20	9,9	18.243	12.225	8.928	-	9.984		400	480	56	13
MCA45 311	53,40	12,9	24.645	16.728	13.419	-	13.692	3	450	495	52	14
MCA50 311	62,40	15,3	33.327	22.416	17.100	-	20.700		500	1.770	61	19
MCS35 111	8,60	2,7	4.195	2.838	2.233	1.790	2.667	1	350	165	44	12
MCS35 211	17,20	5,4	8.390	5.676	4.466	3.580	5.334	2	350	330	47	12
MCS35 311	25,80	8,1	12.585	8.514	6.699	5.370	8.001	3	350	495	49	12
MCS40 111	10,30	3,3	4.962	3.252	2.692	2.181	3.439		400	160	51	14
MCS45 111	13,80	4,3	6.974	4.732	3.828	3.052	4.695	1	450	245	47	14
MCS50 111	16,04	5,1	9.495	6.398	4.981	4.008	7.194		500	590	56	20
MCS40 211	20,60	6,6	9.924	6.504	5.384	4.362	6.878		400	320	54	14
MCS45 211	27,60	8,6	13.948	9.464	7.656	6.104	9.390	2	450	490	50	14
MCS40 311	30,90	9,9	14.886	9.756	8.076	6.543	10.317		400	480	56	14
MCS45 311	41,40	12,9	20.922	14.196	11.484	9.156	14.085	3	450	495	52	14
MCS50 311	48,12	15,3	28.485	19.194	14.943	12.024	21.582		500	1.770	61	20







Model Model	**Defrost Isıtıcılar** Electric Defrost Heater			**Boyutlar** Dimensions							**Enerji Sınıfı** Energy Consumption
	B1	B2									
	Batarya Coil	**Batarya** Coil	**Tava** D.Tray	**L**	**H**	**W**	**LT**	**H1**	**W1**	**W2**	
	(nxW)	**(nxW)**	**(nxW)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	
MCA35 111	2X300	2X300	2X300	83	44	100	53	34	96	86	D
MCA35 211	6X550	6X550	4X550	133	44	100	-	34	96	86	D
MCA35 311	4X800	4X800	2X800	183	44	100	-	34	96	86	D
MCA40 111	4X350	4X350	2X350	93	44	100	63	34	96	86	C
MCA45 111	4X350	4X350	2X350	93	51	110	63	42	106	96	C
MCA50 111	6x375	6x375	4x375	103	51	110	73	42	106	96	E
MCA40 211	4X650	4X650	2X650	153	44	100	-	34	96	86	C
MCA45 211	4X650	4X650	2X650	153	51	110	-	42	106	96	C
MCA50 211	4X750	4X750	2X750	173	51	110	-	42	106	96	E
MCA40 311	4X950	4X950	2X950	213	44	100	-	34	96	86	C
MCA45 311	4X950	4X950	2X950	213	51	110	-	42	106	96	B
MCA50 311	4X1100	4X1100	2X1100	243	51	110	-	42	106	96	E
MCS35 111	2X300	2X300	2X300	83	44	100	53	34	96	86	D
MCS35 211	4X550	4X550	2X550	133	44	100	-	34	96	86	D
MCS35 311	4X800	4X800	2X800	183	44	100	-	34	96	86	D
MCS40 111	4X350	4X350	2X350	93	44	100	63	34	96	86	C
MCS45 111	4X350	4X350	2X350	93	51	110	63	42	106	96	C
MCS50 111	4X400	4X400	2X400	103	51	110	73	42	106	96	E
MCS40 211	4X650	4X650	2X650	153	44	100	-	34	96	86	C
MCS45 211	4X750	4X750	2X750	153	51	110	-	42	106	96	C
MCS40 311	4X950	4X950	2X950	213	44	100	-	34	96	86	C
MCS45 311	4X950	4X950	2X950	213	51	110	-	42	106	96	B
MCS50 311	4X1100	4X1100	2X1100	243	51	110	-	42	106	96	A

NEW GENERATION PRODUCTS

Yeni Nesil Soğutucular

BUZÇELİK
THERMIC EQUIPMENTS INDUSTRY

ŞOK DONDURUCULAR

Blast Freezers

FNO S - FNN S
FNO SS - FNN SS
FNO T - FNN T
FPO S - FPN S
FPO SS - FPN SS
FPO T - FPN T
SERIES

BATARYA

- Bakır borular Ø5/8".
- V-tipi alüminyum lamel.
- Lamel araları 10-12 mm tasarlanmıştır.
- Giriş - çıkış kolektör malzemesi bakırdır.
- İzin verilen en yüksek çalışma basıncı Ps= 21 Bar.
- Şaşırtmalı boru dizilimi.
- Az soğutkan şarjı gerektiren devreleme.
- Soğutucular R404A, R407C, R407F, R507F, R22, Rl 34A, R449A, R290A, R41OA soğutucu gazlarla çalışmaya uygun tasarım.
- Soğutucu akışkan distribütörü.

Coil

- Ø5/8" copper tube.
- "V" type aluminum fins.
- The finned coils are designed with a/uminum fins spaced at 10 or 12 mm, crimped onto copper tubes.
- Header in/et and out/et tube connections made of copper.
- Maximum operating pressure 21 bar.
- Staggered copper tubes.
- Low refrigerant charge required circuit design.
- The coil circuits are designed far refrigerants R404A, R449A, R22.
- Refrigerant distributor.

KASETLEME

- Galvaniz çelik üzerine elektrostatik RAL 9016 boyalıdır.
- İsteğe bağlı Paslanmaz Çelik ve Alüminyum kaset seçeneği.
- Sökülebilir yan kapaklar
- Menteşeli/Katlanır drenaj tavası tüm modellerde standarttır.
- Ara drenaj tavası.

Casing

- Electrostatic powder coated RAL 9016 galvanized steeL
- Stainless steel and aluminum casing as optionaL
- Side panels are removable.
- Hinged/Folding drain tray is standard for ali models.
- Intermediate drain pan.

FAN

- Oda boyutlarına göre farklı fan çapı ve fan sayısına sahip soğutucu seçenekleri.
- Opsiyonel seçimler Buzçelik Teknik Uzmanı tarafından teyit edilmelidir
- Standart veya düşük ses seviyeli bakım gerektirmeyen fan seçeneği.
- İsteğe bağlı AC ya da EC fan motor seçenekleri.
- Koruma sınıfı IP54, fan konstrüksiyonu izolasyon malzeme sınıfı F
- Opsiyonel olarak seçilebilir fan aksesuar çeşitleri (Axicool fanlar, FlowGrid gürültü düşürücüler vb.)
- Çalışma aralığı -40°C/+50°C'dir

Fan

- Selection of a unit cooler with various fan number/diameter combinations offering the dimensional and air throw characteristics besi adapted to the size of the cold room.
- Selections should be confirmed by your Buzçelik Technical Specialist.
- Standard or low noise level are available.
- Different kinds of motors available as optionaL (EC or AC)
- Motor protection IP54 insulation class F.
- Different kinds of accessories available as optionaL (Axicool Fans, FlowGrid etc.)
- Working conditions -40"C/+50"C.

DEFROST

- B2 defrost sistemine sahiptir. Defrost ısıtıcılar batarya ve drenaj tavasına monte edilir.
- Drenaj hattı ısıtıcısı, fan davlumbaz ısıtıcısı ve sıcak gaz defrost sistemi opsiyoneldir.
- Defrost uygulaması hızlı ve verimli defrost için homojen ısı dağılımı sağlar.
- +4°C'den büyük veya eşit oda sıcaklıklarında isteğe bağlı olarak tava derinliği arttırılmış soğutucu tasarımı ile sulu defrost seçeneği.

- B2 (Opsiyonel) : Elektrik defrost (Batarya + Drenaj Tavası)
- HGD (Opsiyonel) : Sıcak gaz defrost (Batarya ve Drenaj Tavası)

Defrosting

- Products have 82 type defrost system and spare defrosts.
Oefrost heaters are applied on both heat exchanger coil and drain tray.
- Drain /ine heaters, fan housing heaters and hot gas defrost system are optional.
- This facility enab/es homogenous heat distribution far fast and efficient defrosting.
- A water defrost (WD) option is available far room temperature equal to or greater than +4° C. in this case the unit coo/er depth is increased amount of depth.

- B2 (Optiona/) : Electric defrost (coil + drain pan)
- HGD (Optiona/): Hat gas (coil and drain pan)

KAPASİTE

Nominal kapasiteler E.T./R.T.=-40°C /-34°C koşullarında R404A gaza göre Eurovent EN 328 standartları dikkate alınarak verilmiştir.

Capacity

The nominal capacities calculated according to Eurovent EN328 standards that refer to E.T./R.T=-40°C/-34 °C condition and are valid far R404A.

SEÇENEKLER

- Farklı dış kabin rengi,
- Farklı boru et kalınlığı ve hatve,
- Monofaze 220V 1 ~ 50Hz, Trifaze 400V 3~ 50Hz fan seçeneği.
- Katalogda belirtilmeyen özel ürünler için lütfen satış departmanı ile irtibata geçin.

Options

- Different casing color.
- Other tube wall thicknesses and fin spacing on request.
- Mono phase 220V 1 ~ 50Hz fan or three phase 400V 3~ 50Hz fan.
- Please keep in touch with our sales department about your special needs that are not mentioned in the catalogue.

NOT

Montaj, Bakım - Taşıma ve Kaldırma detayları için kullanım Kılavuzuna başvurunuz.

Note

Please read "Installation, Operation and Maintenance Instructions" for mounting and maintenance.

AKSESUARLAR

- Bataryada ve tavada sıcak gaz defrost,
- Yalıtım tavası,
- Paslanmaz çelik kabin,
- Epoxy boya,
- Fan kablo rezistansı,
- Drenaj hattı kablo rezistans.

Accessories

- Hol gas defrost in coil and drip tray.
- Insulated drip tray.
- Casing made of stainless steeL
- Epoxy resin coated aluminum fins.
- Fan cable heaters.
- Drain line cable heater.

Options As Listed Are Available On Request For Assistance Please Contact Buzçelik Branch
Talep Üzerine Listelenen Özelliklerin Üretimi Mümkündür. Yardım İçin Lütfen Buzçelik Satış Birimi İle İletişime Geçiniz.

ADLANDIRMA
CLASSIFICATION

63 F N N 21 2 T

Fan Çapı Fan Diameter	F F	Geometri Geometry	Hatve Aralığı Fin Space	Fan Dizisi Fan Array	Ürün Numarası Product Number	Tip Type
0 ... cm	Şok Dondurucu Blast Freezer	P : 55 mm x 48 mm N : 40 mm x 35 mm	0 : 10 mm N :12 mm	Sütun x Satır Column x Row		S : Standart Tip SS : Çok Katlı Tip T : Tünel Tip S : Standard Type SS : MulT-Layer Type T : Tunnel Type

KAPASİTE STANDARTLARI
CAPACITY STANDARD

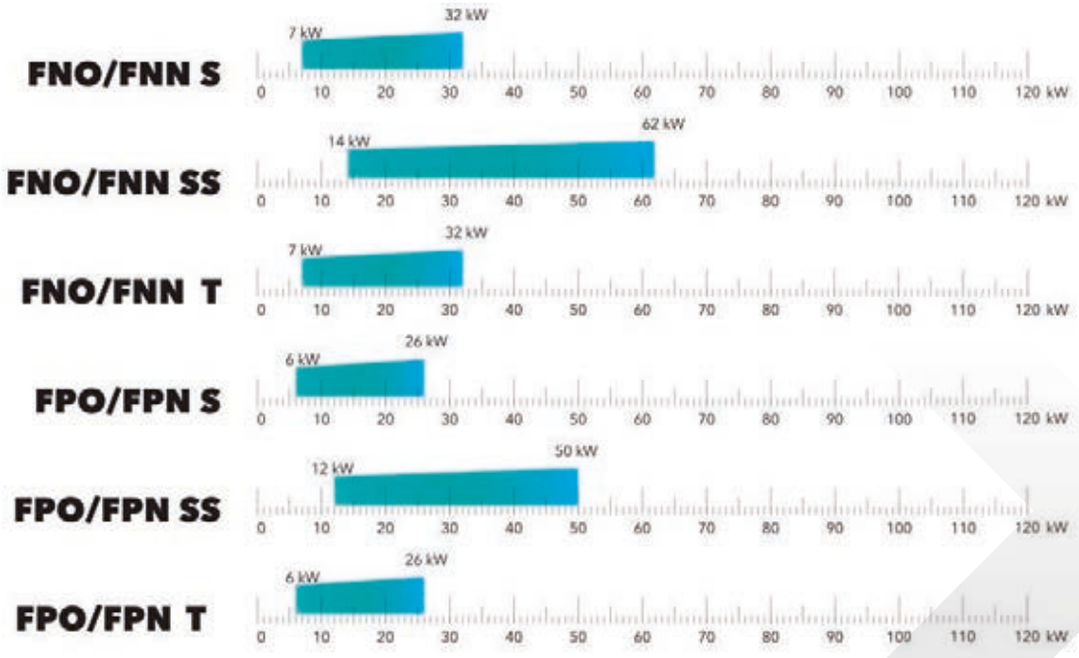
Nominal kapasite değerleri Eurovent standart şartları EN328'de tanımlanan ΔT1 esasına göre verilmiştir.
Nominal capacities in the catalog are given according to ΔT1 as defineci in EN 328 standard conditions of Eurovent.

ΔT1 = (Oda Sıcaklığı) - (Evaporasyon Sıcaklığı)
ΔT1 = (Room Temp.)- (Evaporation Temp.)

Tablo-1 : Standart Şartlar (Eurovent EN 328)
Table-1 Standard Conditions (Eurovent EN 328)

Freon için Standart Şartlar Standard Conditions tor Refrigerants	Oda Sıcaklığı °C Room Temperature	Evaporasyon Sıcaklığı °C Evaporating Temp.
SC5	-34	40

ÜRÜN KAPASİTE ARALIĞI
CAPACITY RANGE



TABLO-2 / Table-2

Oda Sıcaklığına Bağlı Olarak Önerilen Lamel Aralıkları Recommended Efficient Fin Spacings According to Room Temperatures		
Eurovent 328 Standart	Lamel Aralığı Fin Spacing	Oda Sıcaklığı (T1) Room Temp.(T1)
SC1	4mm ~ 6mm	10°C
SC2	6mm ~ 8mm	0 °C
SC3	8mm ~ 10mm	-18 °C
SC4	10mm	-25 °C

(f1) KAPASİTE DÜZELTME FAKTÖRÜ
(f1) CAPACITY CORRECTION FACTORS

Oda Sıcaklığı Room Temp.	ΔT (Oda Sıcaklığı-Evaporasyon Sıcaklığı) (Room Temp.-Evaporation Temp.)					
°C	°C	°C	°C	°C	°C	°C
	5	6	7	8	9	10
-35	1	1,2	1,4	1,6	1,8	2
-40	0,98	1,18	1,37	1,57	1,76	1,96

QNK= (QR/f1)

Q_{NK} = **Nominal Katalog Kapasitesi** / Nominal Catalog Capacity
Q_R = **İstenen Kapasite** / Required Capacity
F1 = **Düzeltme Faktörü** / Correction Factor

K2 SOĞUTUCU FAKTÖR
K2 REFRIGERANT FACTOR

Refrigerant	SC1	SC2	SC3	SC4
R404A	1	1	1	1
R507A	0,97	0,97	0,97	0,97
R22	0,97	0,97	0,97	0,97
R407A	1,19	1,24	1,28	1,32
R407F	1,19	1,24	1,29	1,35

ÖRNEK SEÇİM
Selection Example

QR = 18Kw (istenen Kapasite)
T1 = -40°C (Oda Sıcaklığı)
T2 = -47°C (Evaporasyon Sıcaklığı)
T = 7°C (Sıcaklık Farkı)
f1 = 1,37 (Düzeltme Faktörü)
QNK= (QR/f1) = (18/1,37) = 13,5 kW
Seçilen Soğutucu = 63FNN 211 S / 63FNN 211 T

QR = 18Kw (RequiredCapacity)
Tl = -40°C (Room Temp.)
T2 = -47°C (Evaporation Temp.)
T = 7°C (Temperature Difference)
f1 = 1,37 (Correction Factor)
QNK= (QR/fl) = (7 8/1,37) = 13,5 kW
Selected Blast Freezer = 63FNN 211 S / 63FNN 211 T


NEW
GEN
ERA
TION
BUR
GERS

63FNO-63FNN S Serisi
63FNO-63FNN S Serie

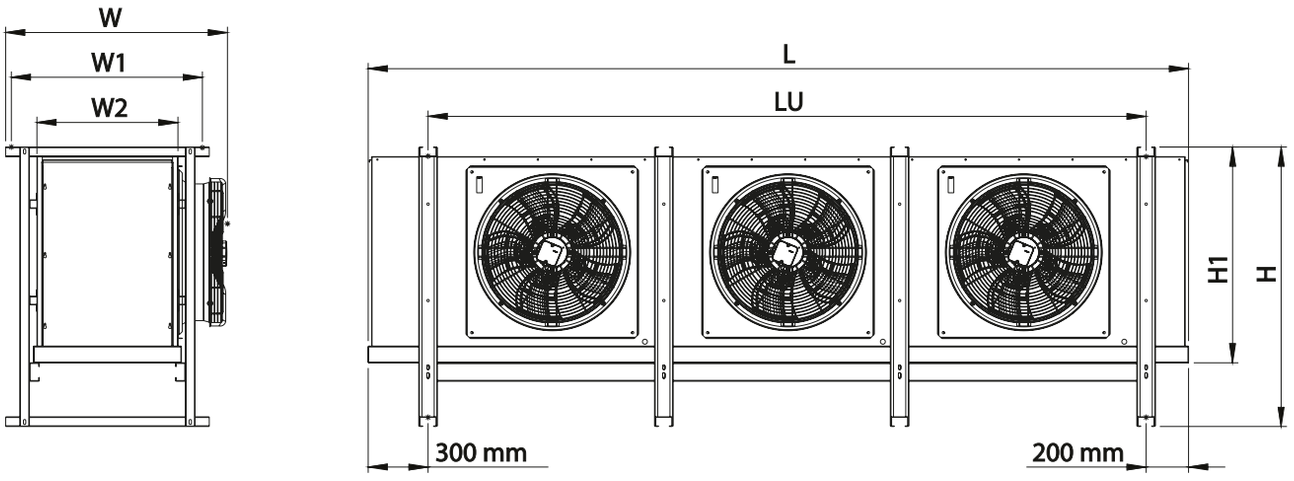
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8”

Hatve / Fin Spacing : 10 mm - 12 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity	**Fanlar** Fans **Fans 400V AC 50 Hz 1320 rpm**			**Defrost Isıtıcılar** Electric Defrost		
							B1	**B2**	
			RT / ET RT: Room Temepreature ET: Evaporation Temperature -34 °C / -40 °C	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow	**Batarya** Coil	**Batarya** Coil	**Tava** D.Tray
	(m^2)	(dm^3)	(Watt)	(n)	(Ømm)	(m3/h)	(nXW)	(nXW)	(nXW)
63FNO 111 S	55,20	17,3	7.798	1	630	16.114	-	22X600	4X600
63FNO 112 S	70,00	21,2	9.266		630	17.220	-	28X600	4X600
63FNN 111 S	46,59	16,5	7.020		630	16.382	-	22X600	4X600
63FNN 112 S	59,35	21,5	8.320		630	17.435	-	28X600	4X600
63FNO 211 S	109,96	33,0	15.824	2	630	32.228	-	22X1150	4X1150
63FNO 212 S	140,08	42,4	18.770		630	34.440	-	28X1150	4X1150
63FNN 211 S	93,17	33,0	14.215		630	32.774	-	22X1150	4X1150
63FNN 212 S	118,70	42,4	16.817		630	34.870	-	28X1150	4X1150
63FNO 311 S	165,60	51,9	22.923	3	630	48.341	-	22X1700	4X1700
63FNO 312 S	210,78	66,0	28.523		630	51.661	-	28X1700	4X1700
63FNN 311 S	140,43	51,9	21.649		630	49.163	-	22X1700	4X1700
63FNN 312 S	178,71	66,0	25.533		630	52.305	-	28X1700	4X1700
63FNO 411 S	220,80	69,2	31.117	4	630	64.455	-	22X2250	4X2250
63FNO 412 S	281,04	88,0	37.209		630	68.881	-	28X2250	4X2250
63FNN 411 S	187,24	69,2	28.567		630	65.551	-	22X2250	4X2250
63FNN 412 S	238,28	88,0	34.010		630	69.740	-	28X2250	4X2250



Model Model	**Boyutlar** Dimensions						
	L	**H**	**W**	**LU**	**H1**	**W1**	**W2**
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**
63FNO 111 S	162	132	105	115	100	91	66
63FNO 112 S	162	154	105	115	122	91	66
63FNN 111 S	162	132	105	115	100	91	66
63FNN 112 S	162	154	105	115	122	91	66
63FNO 211 S	272	132	105	225	100	91	66
63FNO 212 S	272	154	105	225	122	91	66
63FNN 211 S	272	132	105	225	100	91	66
63FNN 212 S	272	154	105	225	122	91	66
63FNO 311 S	382	132	105	335	100	91	66
63FNO 312 S	382	154	105	335	122	91	66
63FNN 311 S	382	132	105	335	100	91	66
63FNN 312 S	382	154	105	335	122	91	66
63FNO 411 S	492	132	105	220	100	91	66
63FNO 412 S	492	154	105	220	122	91	66
63FNN 411 S	492	132	105	220	100	91	66
63FNN 412 S	492	154	105	220	122	91	66

63FNO-63FNN SS Serisi
63FNO-63FNN SS Serie

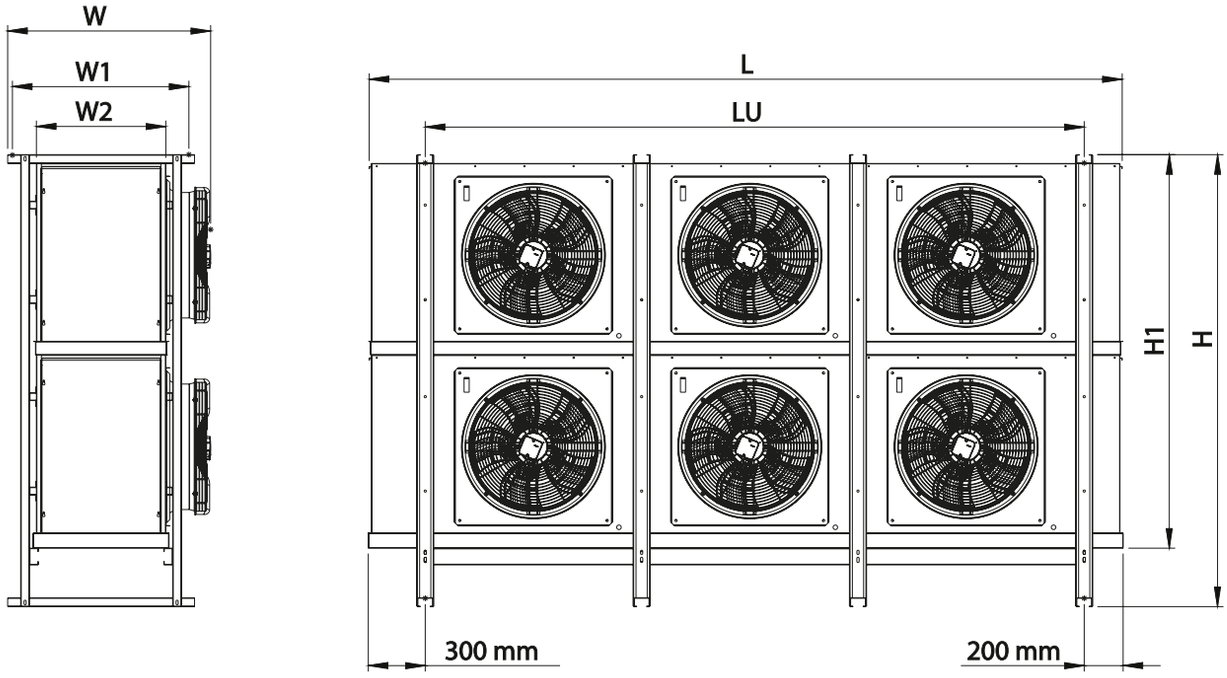
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8”

Hatve / Fin Spacing : 10 mm - 12 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity	**Fanlar** Fans **Fans 400V AC 50 Hz 1320 rpm**			**Defrost Isıtıcılar** Electric Defrost		
							B1	**B2**	
			RT / ET RT: Room Temepreature ET: Evaporation Temperature -34 °C / -40 °C	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow	**Batarya** Coil	**Batarya** Coil	**Tava** D.Tray
	(m^2)	(dm^3)	(Watt)	(n)	(Ømm)	(m3/h)	(nXW)	(nXW)	(nXW)
63FNO 121 SS	109,97	33,0	15.596	2	630	32.228	-	44X600	4X600
63FNO 122 SS	140,08	42,4	18.533		630	34.440	-	56X600	4X600
63FNN 121 SS	93,17	33,0	14.038		630	32.765	-	44X600	4X600
63FNN 122 SS	118,70	42,4	16.639		630	34.870	-	56X600	4X600
63FNO 221 SS	220,59	68,3	31.936	4	630	64.455	-	44X1150	4X1150
63FNO 222 SS	280,16	84,8	37.540		630	68.880	-	56X1150	4X1150
63FNN 221 SS	187,01	68,3	28.672		630	65.551	-	44X1150	4X1150
63FNN 222 SS	237,42	84,8	33.634		630	69.740	-	56X1150	4X1150
63FNO 321 SS	331,20	103,8	48.270	6	630	96.683	-	44X1700	4X1700
63FNO 322 SS	421,56	132,0	57.046		630	103.321	-	56X1700	4X1700
63FNN 321 SS	280,86	103,8	43.298		630	98.326	-	44X1700	4X1700
63FNN 322 SS	357,42	132,0	51.066		630	104.610	-	56X1700	4X1700
63FNO 421 SS	441,60	138,4	62.234	8	630	128.910	-	44X2250	4X2250
63FNO 422 SS	562,08	176,0	74.417		630	137.761	-	56X2250	4X2250
63FNN 421 SS	374,48	138,4	57.135		630	131.102	-	44X2250	4X2250
63FNN 422 SS	476,56	176,0	68.017		630	139.480	-	56X2250	4X2250



Model Model	**Boyutlar** Dimensions						
	L	**H**	**W**	**LU**	**H1**	**W1**	**W2**
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**
63FNO 121 SS		225	105	115	195	91	66
63FNO 122 SS	162	274	105	115	240	91	66
63FNN 121 SS	162	225	105	115	195	91	66
63FNN 122 SS	162	274	105	115	240	91	66
63FNO 221 SS	272	225	105	225	195	91	66
63FNO 222 SS	272	274	105	225	240	91	66
63FNN 221 SS	272	225	105	225	195	91	66
63FNN 222 SS	272	274	105	225	240	91	66
63FNO 321 SS	382	225	105	335	195	91	66
63FNO 322 SS	382	274	105	335	240	91	66
63FNN 321 SS	382	225	105	335	195	91	66
63FNN 322 SS	382	274	105	335	240	91	66
63FNO 421 SS	492	225	105	220	195	91	66
63FNO 422 SS	492	274	105	220	240	91	66
63FNN 421 SS	492	225	105	220	195	91	66
63FNN 422 SS	492	274	105	220	240	91	66

63FNO-63FNN T Serisi
63FNO-63FNN T Serie

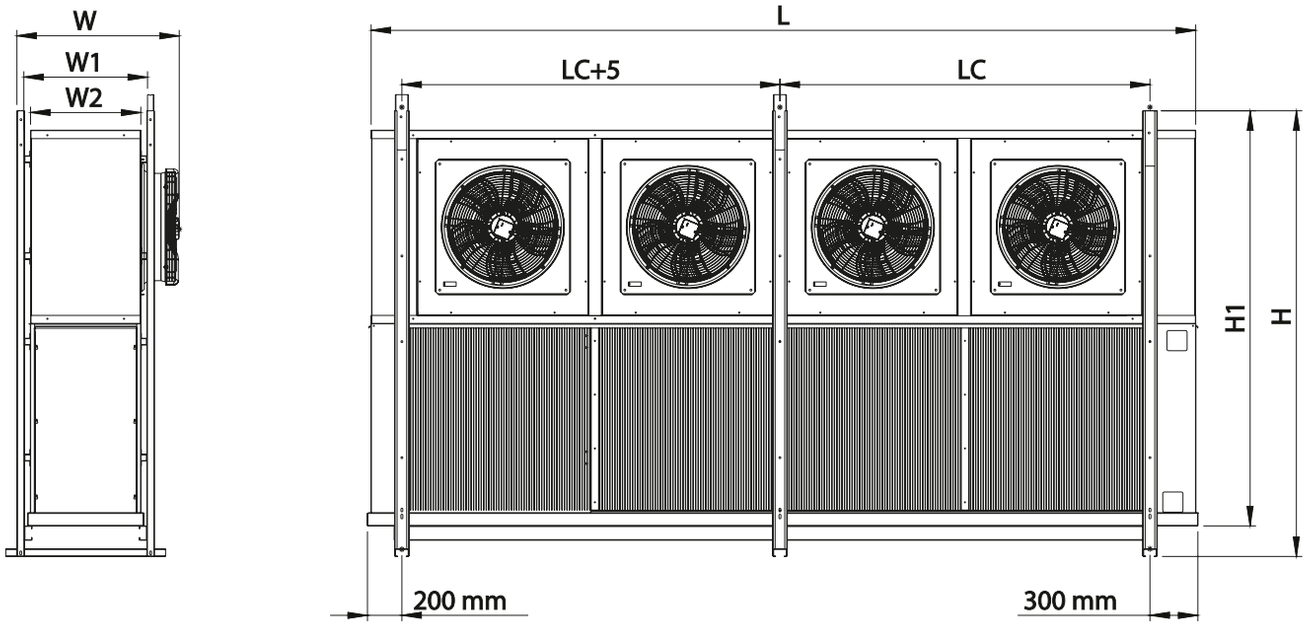
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8”

Hatve / Fin Spacing : 10 mm - 12 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity	**Fanlar** Fans **Fans 400V AC 50 Hz 1320 rpm**			**Defrost Isıtıcılar** Electric Defrost		
							B1	**B2**	
			RT / ET RT: Room Temepreature ET: Evaporation Temperature -34 °C / -40 °C	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow	**Batarya** Coil	**Batarya** Coil	**Tava** D.Tray
	(m^2)	(dm^3)	(Watt)	(n)	(Ømm)	(m3/h)	(nXW)	(nXW)	(nXW)
63FNO 111 T	55,20	17,3	7.798	1	630	16.114	-	22X600	4X600
63FNO 112 T	70,00	21,2	9.266		630	17.220	-	28X600	4X600
63FNN 112 T	46,59	16,5	7.020		630	16.382	-	28X600	4X600
63FNN 111 T	59,35	21,5	8.320		630	17.435	-	22X600	4X600
63FNO 211 T	109,96	33,0	15.824	2	630	32.228	-	22X1150	4X1150
63FNO 212 T	140,08	42,4	18.770		630	34.440	-	28X1150	4X1150
63FNN 211 T	93,17	33,0	14.215		630	32.774	-	22X1150	4X1150
63FNN 212 T	118,70	42,4	16.817		630	34.870	-	28X1150	4X1150
63FNO 311 T	165,60	51,9	22.923	3	630	48.341	-	22X1700	4X1700
63FNO 312 T	210,78	66,0	28.523		630	51.661	-	28X1700	4X1700
63FNN 311 T	140,43	51,9	21.649		630	49.163	-	22X1700	4X1700
63FNN 312 T	178,71	66,0	25.533		630	52.305	-	28X1700	4X1700
63FNO 411 T	220,80	69,2	31.117	4	630	64.455	-	22X2250	4X2250
63FNO 412 T	281,04	88,0	37.209		630	68.881	-	28X2250	4X2250
63FNN 411 T	187,24	69,2	28.567		630	65.551	-	22X2250	4X2250
63FNN 412 T	238,28	88,0	34.010		630	69.740	-	28X2250	4X2250



Model Model	**Boyutlar** Dimensions						
	L	**H**	**W**	**LC**	**H1**	**W1**	**W2**
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**
63FNO 111 T	162	2600	105	115	230	75	66
63FNO 112 T	162	282	105	115	252	75	66
63FNN 112 T	162	2600	105	115	230	75	66
63FNN 111 T	162	282	105	115	252	75	66
63FNO 211 T	272	2600	105	225	230	75	66
63FNO 212 T	272	282	105	225	252	75	66
63FNN 211 T	272	2600	105	225	230	75	66
63FNN 212 T	272	282	105	225	252	75	66
63FNO 311 T	382	2600	105	335	230	75	66
63FNO 312 T	382	282	105	335	252	75	66
63FNN 311 T	382	2600	105	335	230	75	66
63FNN 312 T	382	282	105	335	252	75	66
63FNO 411 T	492	2600	105	220	230	75	66
63FNO 412 T	492	282	105	220	252	75	66
63FNN 411 T	492	2600	105	220	230	75	66
63FNN 412 T	492	282	105	220	252	75	66

63FPO-63FPN S Serisi
63FPO-63FPN S Serie

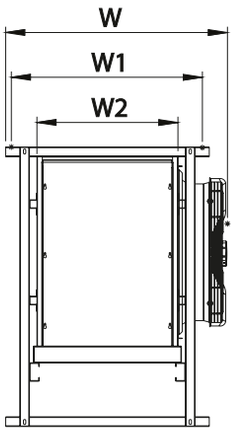
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

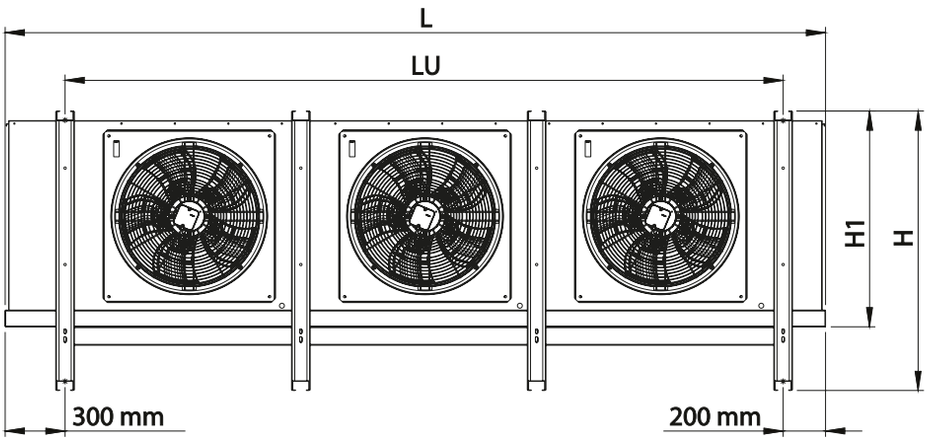
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8”

Hatve / Fin Spacing : 10 mm - 12 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity	**Fanlar** Fans **Fans 400V AC 50 Hz 1320 rpm**			**Defrost Isıtıcılar** Electric Defrost		
							B1	**B2**	
			RT / ET RT: Room Temepreature ET: Evaporation Temperature -34 °C / -40 °C	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow	**Batarya** Coil	**Batarya** Coil	**Tava** D.Tray
	(m^2)	(dm^3)	(Watt)	(n)	(Ømm)	(m3/h)	(nXW)	(nXW)	(nXW)
63FPO 111 S	56,48	12,6	7.224	1	630	15.650	-	16x600	4x600
63FPO 112 S	70,60	15,7	8.548		630	16.600	-	20x600	4x600
63FPN 111 S	47,65	12,6	6.381		630	16.000	-	16x600	4x600
63FPN 112 S	59,57	15,7	7.585		630	17.000	-	20x600	4x600
63FPO 211 S	112,96	25,2	14.448	2	630	31.300	-	16x1150	4x1150
63FPO 212 S	141,20	31,4	17.097		630	33.200	-	20x1150	4x1150
63FPN 211 S	95,30	25,2	12.762		630	32.000	-	16x1150	4x1150
63FPN 212 S	119,13	31,4	15.170		630	34.000	-	20x1150	4x1150
63FPO 311 S	169,44	37,8	18.849	3	630	52.820	-	16x1700	4x1700
63FPO 312 S	211,80	47,1	22.092		630	54.886	-	20x1700	4x1700
63FPN 311 S	142,95	37,8	16.698		630	53.433	-	16x1700	4x1700
63FPN 312 S	178,70	47,1	19.520		630	55.270	-	20x1700	4x1700
63FPO 411 S	225,92	50,4	23.802	4	630	70.427	-	16x2250	4x2250
63FPO 412 S	282,40	62,8	28.203		630	73.177	-	20x2250	4x2250
63FPN 411 S	190,60	50,4	21.643		630	71.244	-	16x2250	4x2250
63FPN 412 S	238,26	62,8	25.523		630	73.693	-	20x2250	4x2250





Model Model	**Boyutlar** Dimensions						
	L	**H**	**W**	**LU**	**H1**	**W1**	**W2**
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**
63FPO 111 S	162	1300	105	115	100	91	66
63FPO 112 S	162	1500	105	115	122	91	66
63FPN 111 S	162	1300	105	115	100	91	66
63FPN 112 S	162	1500	105	115	122	91	66
63FPO 211 S	272	1300	105	225	100	91	66
63FPO 212 S	272	1500	105	225	122	91	66
63FPN 211 S	272	1300	105	225	100	91	66
63FPN 212 S	272	1500	105	225	122	91	66
63FPO 311 S	382	1300	105	335	100	91	66
63FPO 312 S	382	1500	105	335	122	91	66
63FPN 311 S	382	1300	105	335	100	91	66
63FPN 312 S	382	1500	105	335	122	91	66
63FPO 411 S	492	1300	105	220	100	91	66
63FPO 412 S	492	1500	105	220	122	91	66
63FPN 411 S	492	1300	105	220	100	91	66
63FPN 412 S	492	1500	105	220	122	91	66

63FPO-63FPN SS Serisi
63FPO-63FPN SS Serie

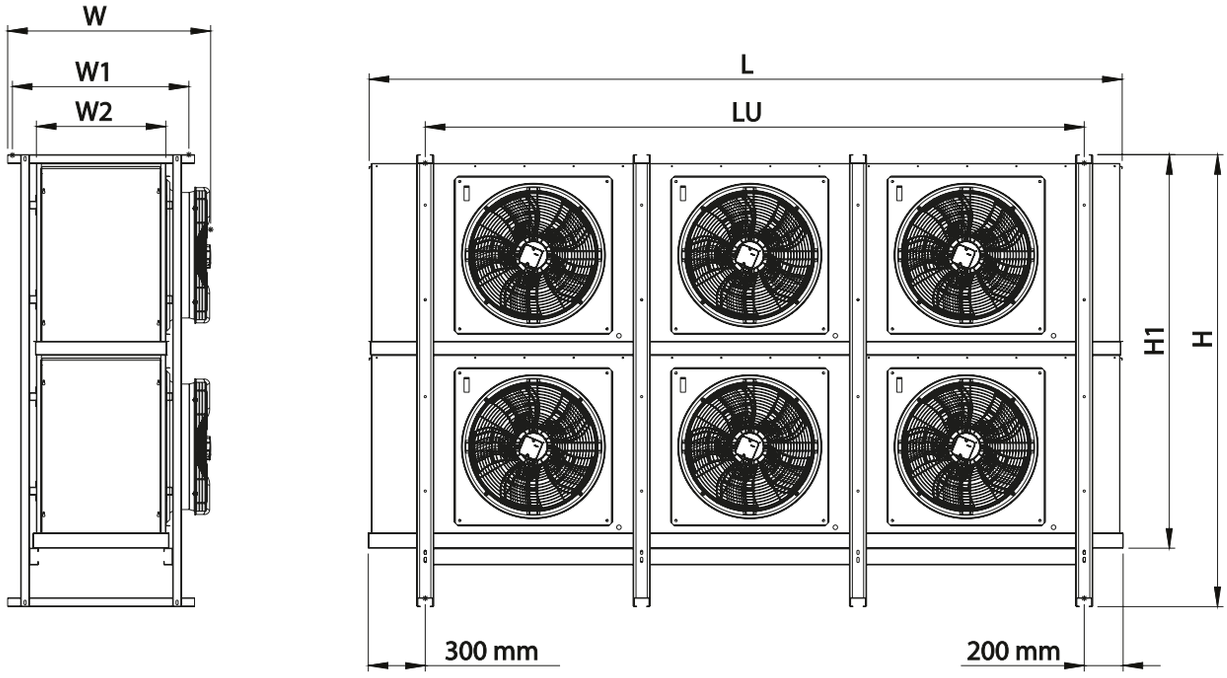
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8”

Hatve / Fin Spacing : 10 mm - 12 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity	**Fanlar** Fans **400V AC 50 Hz 1320 rpm**			**Defrost Isıtıcılar** Electric Defrost		
							B1	**B2**	
			RT / ET RT: Room Temepreature ET: Evaporation Temperature -34 °C / -40 °C	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow	**Batarya** Coil	**Batarya** Coil	**Tava** D.Tray
	(m^2)	**(dm^3)**	**(Watt)**	**(n)**	**(Ømm)**	**(m3/h)**	**(nXW)**	**(nXW)**	**(nXW)**
63FPO 121 SS	112,96	25,2	14.448	2	630	31.300	-	32x600	4x600
63FPO 122 SS	141,20	31,4	17.097		630	33.200	-	40x600	4x600
63FPN 121 SS	95,30	25,2	12.762		630	32.000	-	32x600	4x600
63FPN 122 SS	119,13	31,4	15.170		630	34.000	-	40x600	4x600
63FPO 221 SS	225,92	50,4	28.896	4	630	62.600	-	32x1150	4x1150
63FPO 222 SS	282,40	62,8	34.194		630	66.400	-	40x1150	4x1150
63FPN 221 SS	190,60	50,4	25.525		630	64.000	-	32x1150	4x1150
63FPN 222 SS	238,26	62,8	30.341		630	68.000	-	40x1150	4x1150
63FPO 321 SS	338,89	75,6	34.699	6	630	105.641	-	32x1700	4x1700
63FPO 322 SS	423,60	94,2	44.185		630	109.766	-	40x1700	4x1700
63FPN 321 SS	285,90	75,6	33.396		630	106.865	-	32x1700	4x1700
63FPN 322 SS	357,40	94,2	39.039		630	110.539	-	40x1700	4x1700
63FPO 421 SS	451,85	100,8	47.604	8	630	140.855	-	32x2250	4x2250
63FPO 422 SS	564,80	125,6	56.407		630	146.354	-	40x2250	4x2250
63FPN 421 SS	381,20	100,8	43.287		630	142.487	-	32x2250	4x2250
63FPN 422 SS	476,53	125,6	51.046		630	147.385	-	40x2250	4x2250



Model Model	**Boyutlar** Dimensions						
	L	**H**	**W**	**LU**	**H1**	**W1**	**W2**
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**
63FPO 121 SS	162	225	105	115	195	91	66
63FPO 122 SS	162	274	105	115	240	91	66
63FPN 121 SS	162	225	105	115	195	91	66
63FPN 122 SS	162	274	105	115	240	91	66
63FPO 221 SS	272	225	105	225	195	91	66
63FPO 222 SS	272	274	105	225	240	91	66
63FPN 221 SS	272	225	105	225	195	91	66
63FPN 222 SS	272	274	105	225	240	91	66
63FPO 321 SS	382	225	105	335	195	91	66
63FPO 322 SS	382	274	105	335	240	91	66
63FPN 321 SS	382	225	105	335	195	91	66
63FPN 322 SS	382	274	105	335	240	91	66
63FPO 421 SS	492	225	105	220	195	91	66
63FPO 422 SS	492	274	105	220	240	91	66
63FPN 421 SS	492	225	105	220	195	91	66
63FPN 422 SS	492	274	105	220	240	91	66

63FPO-63FPN T Serisi
63FPO-63FPN T Serie

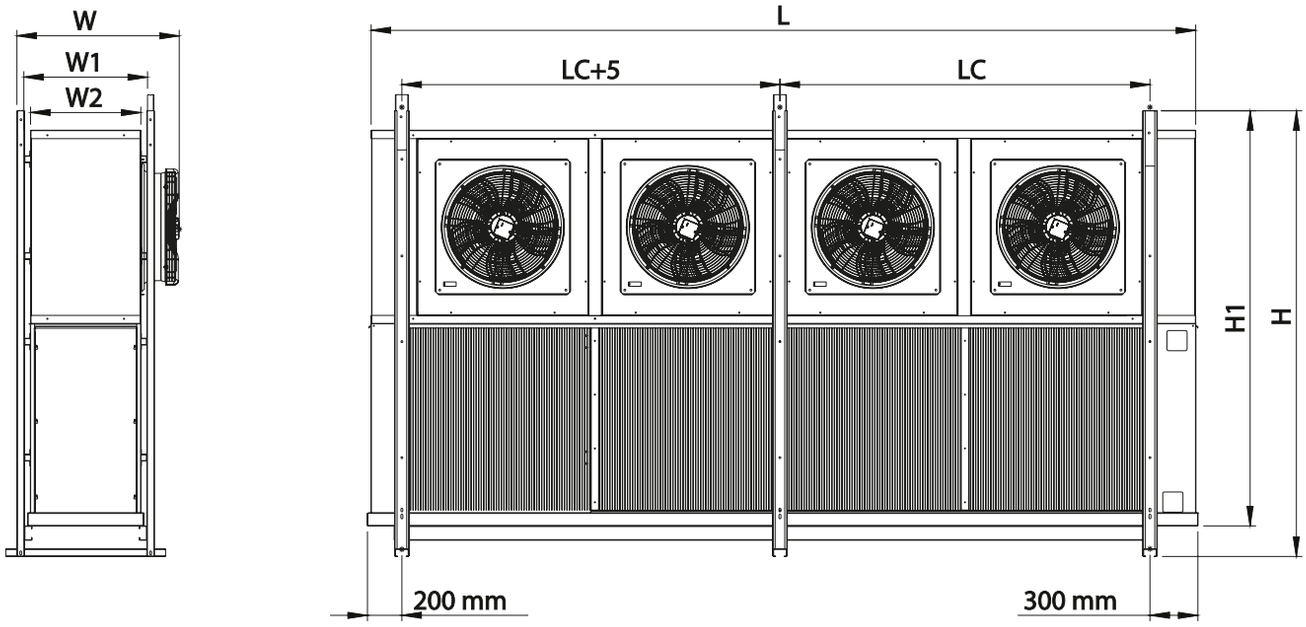
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8”

Hatve / Fin Spacing : 10 mm - 12 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity	**Fanlar** Fans **Fans 400V AC 50 Hz 1320 rpm**			**Defrost Isıtıcılar** Electric Defrost		
							B1	**B2**	
			RT / ET RT: Room Temepreature ET: Evaporation Temperature -34 °C / -40 °C	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow	**Batarya** Coil	**Batarya** Coil	**Tava** D.Tray
	(m^2)	(dm^3)	(Watt)	(n)	(Ømm)	(m3/h)	(nXW)	(nXW)	(nXW)
63FPO 111 T	56,48	12,6	7.224	1	630	15.650	-	16x600	4x600
63FPO 112 T	70,60	15,7	8.548		630	16.600	-	20x600	4x600
63FPN 111 T	47,65	12,6	6.381		630	16.000	-	16x600	4x600
63FPN 112 T	59,57	15,7	7.585		630	17.000	-	20x600	4x600
63FPO 211 T	112,96	25,2	14.448	2	630	31.300	-	16x1150	4x1150
63FPO 212 T	141,20	31,4	17.097		630	33.200	-	20x1150	4x1150
63FPN 211 T	95,30	25,2	12.762		630	32.000	-	16x1150	4x1150
63FPN 212 T	119,13	31,4	15.170		630	34.000	-	20x1150	4x1150
63FPO 311 T	169,44	37,8	18.849	3	630	52.820	-	16x1700	4x1700
63FPO 312 T	211,80	47,1	22.092		630	54.886	-	20x1700	4x1700
63FPN 311 T	142,95	37,8	16.698		630	53.433	-	16x1700	4x1700
63FPN 312 T	178,70	47,1	19.520		630	55.270	-	20x1700	4x1700
63FPO 411 T	225,92	50,4	23.802	4	630	70.427	-	16x2250	4x2250
63FPO 412 T	282,40	62,8	28.203		630	73.177	-	20x2250	4x2250
63FPN 411 T	190,60	50,4	21.643		630	71.244	-	16x2250	4x2250
63FPN 412 T	238,26	62,8	25.523		630	73.693	-	20x2250	4x2250



Model Model	**Boyutlar** Dimensions						
	L	**H**	**W**	**LC**	**H1**	**W1**	**W2**
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**
63FPO 111 T	162	2600	105	115	230	75	66
63FPO 112 T	162	282	105	115	252	75	66
63FPN 111 T	162	2600	105	115	230	75	66
63FPN 112 T	162	282	105	115	252	75	66
63FPO 211 T	272	2600	105	225	230	75	66
63FPO 212 T	272	282	105	225	252	75	66
63FPN 211 T	272	2600	105	225	230	75	66
63FPN 212 T	272	282	105	225	252	75	66
63FPO 311 T	382	2600	105	335	230	75	66
63FPO 312 T	382	282	105	335	252	75	66
63FPN 311 T	382	2600	105	335	230	75	66
63FPN 312 T	382	282	105	335	252	75	66
63FPO 411 T	492	2600	105	220	230	75	66
63FPO 412 T	492	282	105	220	252	75	66
63FPN 411 T	492	2600	105	220	230	75	66
63FPN 412 T	492	282	105	220	252	75	66


NEW
GENERATION
COOLERS
Yeni Nesil Soğutucular

BUZÇELİK
THERMIC EQUIPMENTS INDUSTRY

GLİKOLLÜ SOĞUTUCULAR

Glycol Coolers

GMSD-GMSA-GMSS-GNSD-GNSA-GNSS-GMCD-GMCA SERIES

GMSD Serisi
GMSD Serie

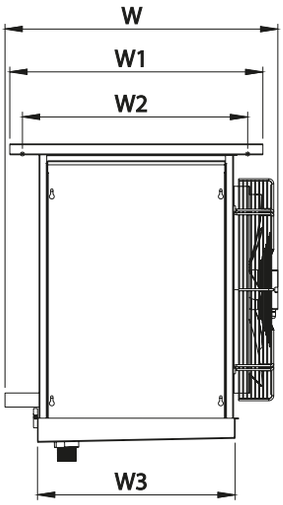
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

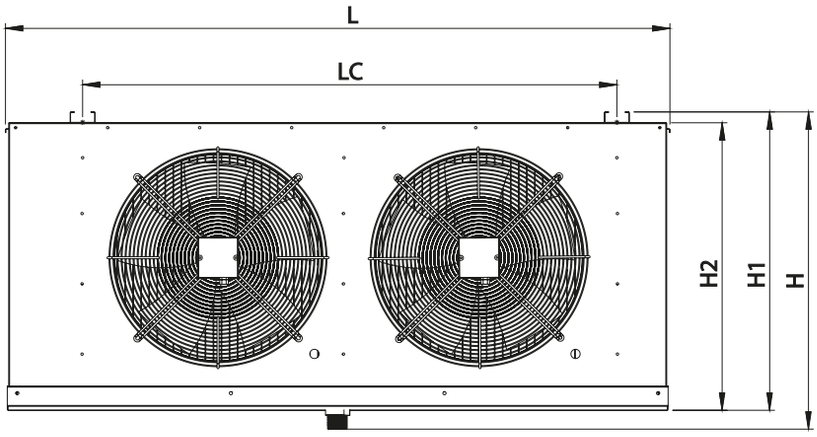
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans 230V AC 1300-1400 d/d-rpm		
			SC10 Tin=+4 °C Tout= +8 °C (%25 Glycol) Tair= +16 °C (70% RH)	**Special Condition** Tin=-2 °C Tout= +2 °C (%25 Glycol) Tair= +10 °C (70% RH)	**SC11** Tin= -10 °C Tout= -7 °C (%35 Glycol) Tair= 0 °C (85% RH)	**Special Condition** Tin= -8 °C Tout= -4 °C (%35 Glycol) Tair= +2 °C (85% RH)	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(n)	(Ømm)	(m³/h)
GMSD 40112	16,24	2,7	5.182	4.727	3.701	3.207	1	400	2.813
GMSD 40114	24,36	4,1	8.310	5.919	4.789	4.245		400	2.314
GMSD 40212	32,48	5,5	10.364	9.454	7.402	6.414	2	400	5.626
GMSD 40214	48,72	8,2	14.098	13.446	11.070	7.864		400	4.628
GMSD 40312	48,72	8,2	15.546	14.181	11.103	9.621	3	400	8.439
GMSD 40314	73,08	12,3	22.611	21.837	18.870	16.695		400	6.942
GMSD 45212	56,29	9,4	18.487	17.354	14.307	9.180	2	450	8.759
GMSD 45214	84,43	14,1	23.239	21.484	14.292	12.420		450	7.864
GMSD 50212	56,29	9,4	21.968	20.856	17.839	10.131		500	12.464
GMSD 50214	84,43	14,1	27.178	25.428	20.768	13.631		500	10.318
GMSD 45312	84,44	14,1	28.463	27.134	23.074	13.770	3	450	13.139
GMSD 45314	126,65	21,2	34.859	32.226	21.438	18.630		450	11.796
GMSD 50312	84,44	14,1	33.755	32.579	28.129	21.998		500	18.696
GMSD 50314	126,65	21,2	40.767	38.142	31.152	20.447		500	15.477
GMSD 45412	112,58	18,8	36.974	34.708	28.614	18.360	4	450	17.518
GMSD 45414	168,86	28,2	50.626	48.382	41.516	24.840		450	15.728
GMSD 50412	112,58	18,8	43.936	41.712	35.678	20.262		500	24.928
GMSD 50414	168,86	28,2	54.356	50.856	41.536	27.262		500	20.636





Model Model	**Boyutlar** Dimensions								
	L	**H**	**W**	**LC**	**H1**	**H2**	**W1**	**W2**	**W3**
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**
GMSD 40112	86	61	56	53	55	55	44	41	34
GMSD 40114	86	61	62	53	55	55	51	48	41
GMSD 40212	136	61	56	103	55	55	44	41	34
GMSD 40214	36	61	62	103	55	55	51	48	41
GMSD 40312	186	61	56	153	58	55	48	45	34
GMSD 40314	186	61	62	153	58	55	55	51	41
GMSD 45212	166	80	56	133	75	72	48	45	34
GMSD 45214	166	80	62	133	75	72	55	51	41
GMSD 50212	166	80	56	133	75	72	48	45	34
GMSD 50214	166	80	62	133	75	72	55	51	41
GMSD 45312	237	80	56	198	75	72	48	45	34
GMSD 45314	237	80	62	198	75	72	55	51	41
GMSD 50312	237	80	56	198	75	72	48	45	34
GMSD 50314	237	80	62	198	75	72	55	51	41
GMSD 45412	302	80	56	130	75	72	48	45	34
GMSD 45414	302	80	62	130	75	72	55	51	41
GMSD 50412	302	80	56	130	75	72	48	45	34
GMSD 50414	302	80	62	130	75	72	55	51	41

GMSA Serisi
GMSA Serie

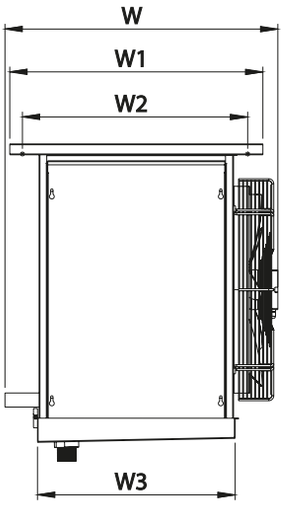
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

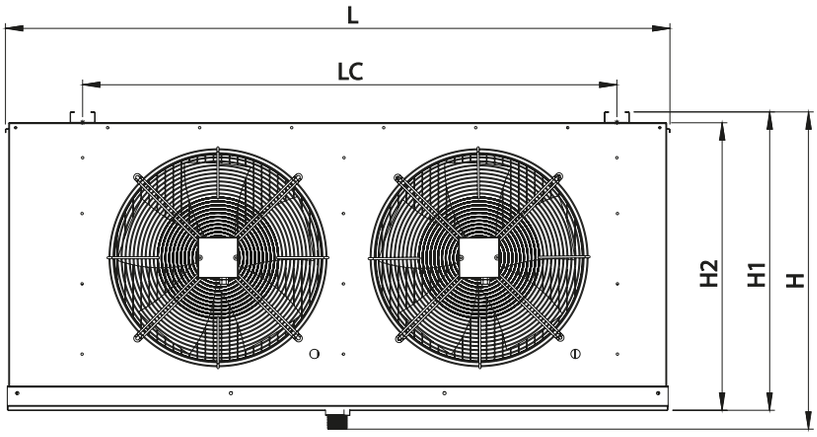
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 6 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans 230V AC 1300-1400 d/d-rpm		
			SC10 Tin= +4 °C Tout= +8 °C (%25 Glycol) Tair= +16 °C (70% RH)	**Special Condition** Tin=-2 °C Tout= +2 °C (%25 Glycol) Tair= +10 °C (70% RH)	**SC11** Tin= -10 °C Tout= -7 °C (%35 Glycol) Tair= 0 °C (85% RH)	**Special Condition** Tin= -8 °C Tout= -4 °C (%35 Glycol) Tair= +2 °C (85% RH)	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow
	(m^2)	(dm^3)	(Watt)	(Watt)	(Watt)	(Watt)	(n)	(Ømm)	(m^3/h)
GMSA 40112	11,15	2,7	3.910	3.252	3.663	2.902	1	400	3.016
GMSA 40114	16,72	4,1	5.301	4.625	4.391	3.878		400	2.598
GMSA 40212	22,30	5,4	9.550	8.809	6.855	5.804	2	400	6.032
GMSA 40214	33,44	8,2	10.882	9.551	6.622	5.618		400	5.196
GMSA 40312	33,45	8,1	11.730	9.756	10.989	8.706	3	400	9.048
GMSA 40314	50,16	12,3	17.813	16.486	9.537	8.057		400	7.794
GMSA 45212	38,63	9,4	14.463	12.965	7.828	6.548	2	450	9.202
GMSA 45214	57,95	14,1	18.548	16.928	12.373	10.809		450	8.398
GMSA 50212	38,63	9,4	16.896	15.923	14.956	11.663		500	13.485
GMSA 50214	57,95	14,1	22.052	20.518	13.946	12.042		500	11.614
GMSA 45312	57,95	14,1	22.802	21.042	10.507	8.702	3	450	13.803
GMSA 45314	86,93	21,2	27.822	25.392	18.560	16.214		450	12.597
GMSA 50312	57,95	14,1	25.344	23.885	22.434	17.495		500	20.228
GMSA 50314	86,93	21,2	33.078	30.777	20.919	18.063		500	17.421
GMSA 45412	77,26	18,8	28.254	26.224	24.366	15.968	4	450	18.404
GMSA 45414	115,90	28,2	37.096	33.856	24.746	21.618		450	16.796
GMSA 50412	77,26	18,8	33.792	31.846	29.912	23.326		500	26.970
GMSA 50414	115,90	28,2	44.104	41.036	27.892	24.084		500	23.228





Model Model	**Boyutlar** Dimensions								
	L	**H**	**W**	**LC**	**H1**	**H2**	**W1**	**W2**	**W3**
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**
GMSA 40112	86	61	56	53	55	55	44	41	34
GMSA 40114	86	61	62	53	55	55	51	48	41
GMSA 40212	136	61	56	103	55	55	44	41	34
GMSA 40214	36	61	62	103	55	55	51	48	41
GMSA 40312	186	61	56	153	58	55	48	45	34
GMSA 40314	186	61	62	153	58	55	55	51	41
GMSA 45212	166	80	56	133	75	72	48	45	34
GMSA 45214	166	80	62	133	75	72	55	51	41
GMSA 50212	166	80	56	133	75	72	48	45	34
GMSA 50214	166	80	62	133	75	72	55	51	41
GMSA 45312	237	80	56	198	75	72	48	45	34
GMSA 45314	237	80	62	198	75	72	55	51	41
GMSA 50312	237	80	56	198	75	72	48	45	34
GMSA 50314	237	80	62	198	75	72	55	51	41
GMSA 45412	302	80	56	130	75	72	48	45	34
GMSA 45414	302	80	62	130	75	72	55	51	41
GMSA 50412	302	80	56	130	75	72	48	45	34
GMSA 50414	302	80	62	130	75	72	55	51	41

GMSS Serisi
GMSS Serie

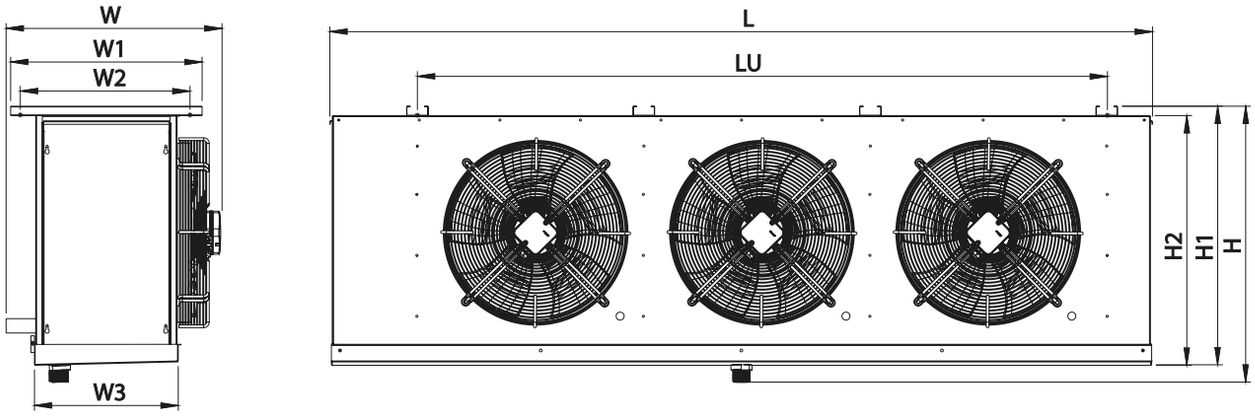
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2"

Hatve / Fin Spacing : 8 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans 230V AC 1300-1400 d/d-rpm		
			SC10 Tin=+4 °C Tout= +8 °C (%25 Glycol) Tair= +16 °C (70% RH)	**Special Condition** Tin=-2 °C Tout= +2 °C (%25 Glycol) Tair= +10 °C (70% RH)	**SC11** Tin= -10 °C Tout= -7 °C (%35 Glycol) Tair= 0 °C (85% RH)	**Special Condition** Tin= -8 °C Tout= -4 °C (%35 Glycol) Tair= +2 °C (85% RH)	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(n)	(Ømm)	(m³/h)
GMSS 40112	8,60	2,7	3.160	2.818	2.889	2.543	1	400	3.211
GMSS 40114	12,90	4,1	4.551	3.953	3.915	3.359		400	2.900
GMSS 40212	17,20	5,5	6.124	5.093	4.790	5.086	2	400	6.422
GMSS 40214	25,80	8,2	9.102	7.906	7.830	6.718		400	5.800
GMSS 40312	25,80	8,2	9.480	8.454	8.667	7.629	3	400	9.633
GMSS 40314	38,70	12,3	13.653	11.859	11.745	10.077		400	8.700
GMSS 45212	29,80	9,4	11.631	10.593	10.125	7.560		450	9.590
GMSS 45214	44,71	14,1	15.702	14.857	14.196	10.673	2	450	8.940
GMSS 50212	29,80	9,4	13.854	12.904	12.416	11.081		500	13.900
GMSS 50214	44,71	14,1	18.627	17.107	17.160	15.202		500	12.380
GMSS 45312	44,40	13,2	17.922	16.731	11.044	9.531		450	14.385
GMSS 45314	67,07	21,2	23.553	22.285	21.294	16.009	3	450	13.410
GMSS 50312	44,70	14,1	20.781	19.356	18.624	16.621		500	20.850
GMSS 50314	67,07	21,2	27.940	25.660	25.740	22.803		500	18.570
GMSS 45412	59,60	18,8	23.262	21.186	20.250	15.120		450	19.180
GMSS 45414	89,42	28,2	31.404	29.714	28.392	21.346	4	450	17.880
GMSS 50412	59,60	18,8	27.708	25.808	24.832	22.162		500	27.800
GMSS 50414	89,42	28,2	41.123	39.551	34.320	30.404		500	24.760



Model Model	**Boyutlar** Dimensions								
	L	**H**	**W**	**LU**	**H1**	**H2**	**W1**	**W2**	**W3**
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**
GMSS 40112	86	61	56	53	55	55	44	41	34
GMSS 40114	86	61	62	53	55	55	51	48	41
GMSS 40212	136	61	56	103	55	55	44	41	34
GMSS 40214	36	61	62	103	55	55	51	48	41
GMSS 40312	186	61	56	153	58	55	48	45	34
GMSS 40314	186	61	62	153	58	55	55	51	41
GMSS 45212	166	80	56	133	75	72	48	45	34
GMSS 45214	166	80	62	133	75	72	55	51	41
GMSS 50212	166	80	56	133	75	72	48	45	34
GMSS 50214	166	80	62	133	75	72	55	51	41
GMSS 45312	237	80	56	198	75	72	48	45	34
GMSS 45314	237	80	62	198	75	72	55	51	41
GMSS 50312	237	80	56	198	75	72	48	45	34
GMSS 50314	237	80	62	198	75	72	55	51	41
GMSS 45412	302	80	56	130	75	72	48	45	34
GMSS 45414	302	80	62	130	75	72	55	51	41
GMSS 50412	302	80	56	130	75	72	48	45	34
GMSS 50414	302	80	62	130	75	72	55	51	41

GNSD Serisi
GNSD Serie

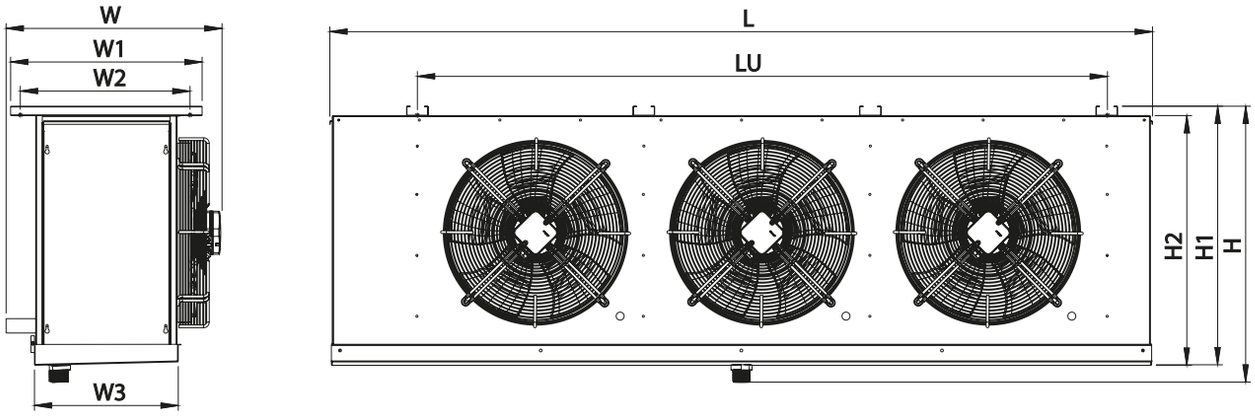
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8"

Hatve / Fin Spacing : 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans 230V AC 1300-1400 d/d-rpm		
			SC10 Tin=+4 °C Tout= +8 °C (%25 Glycol) Tair= +16 °C (70% RH)	**Special Condition** Tin=-2 °C Tout= +2 °C (%25 Glycol) Tair= +10 °C (70% RH)	**SC11** Tin= -10 °C Tout= -7 °C (%35 Glycol) Tair= 0 °C (85% RH)	**Special Condition** Tin= -8 °C Tout= -4 °C (%35 Glycol) Tair= +2 °C (85% RH)	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(n)	(Ømm)	(m³/h)
GNSD 40112	15,63	4,3	5.158	4.750	3.300	2.890	1	400	2.633
GNSD 40114	23,44	6,4	6.500	6.562	5.300	4.000		400	2.100
GNSD 40212	31,25	8,5	10.356	9.500	6.600	5.780	2	400	5.275
GNSD 40214	46,88	12,8	13.000	13.124	10.600	8.000		400	4.250
GNSD 40312	46,88	12,8	15.474	14.250	9.900	8.670	3	400	7.665
GNSD 40314	70,31	19,2	19.350	19.686	15.900	12.000		400	6.450
GNSD 45212	54,17	14,8	20.570	19.560	16.730	13.700		450	8.300
GNSD 45214	81,25	22,3	25.000	23.680	19.835	15.743	2	450	7.331
GNSD 50212	54,17	14,8	24.350	23.440	20.000	16.725		500	11.378
GNSD 50214	81,25	22,3	28.400	27.400	23.000	18.825		500	8.970
GNSD 45312	80,85	21,1	32.783	31.274	27.086	23.576		450	12.450
GNSD 45314	121,88	33,4	37.500	35.500	29.750	23.615	3	450	11.000
GNSD 50312	81,25	22,3	36.525	35.160	30.000	25.000		500	17.067
GNSD 50314	121,88	33,4	42.600	41.100	34.500	28.230		500	13.455
GNSD 45412	107,80	28,2	45.382	43.445	37.997	34.328		450	16.600
GNSD 45414	162,50	44,5	50.000	47.360	59.500	31.500	4	450	14.662
GNSD 50412	108,34	29,7	48.700	46.880	40.000	33.450		500	22.756
GNSD 50414	162,50	44,5	56.800	54.800	46.000	37.650		500	17.940



Model Model	**Boyutlar** Dimensions								
	L	**H**	**W**	**LU**	**H1**	**H2**	**W1**	**W2**	**W3**
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**
GNSD 40112	86	61	56	53	55	55	44	41	34
GNSD 40114	86	61	62	53	55	55	51	48	41
GNSD 40212	136	61	56	103	55	55	44	41	34
GNSD 40214	136	61	62	103	55	55	51	48	41
GNSD 40312	186	61	56	153	58	55	49	45	34
GNSD 40314	186	61	62	153	58	55	55	51	41
GNSD 45212	166	80	56	133	75	72	49	45	34
GNSD 45214	166	80	62	133	75	72	55	51	41
GNSD 50212	166	80	56	133	75	72	49	45	34
GNSD 50214	166	80	62	133	75	72	55	51	41
GNSD 45312	237	80	56	198	75	72	49	45	34
GNSD 45314	237	80	62	198	75	72	55	51	41
GNSD 50312	237	80	56	198	75	72	49	45	34
GNSD 50314	237	80	62	198	75	72	55	51	41
GNSD 45412	302	80	56	130	75	72	49	45	34
GNSD 45414	302	80	62	130	75	72	55	51	41
GNSD 50412	302	80	56	130	75	72	49	45	34
GNSD 50414	302	80	62	130	75	72	55	51	41

GNSA Serisi
GNSA Serie

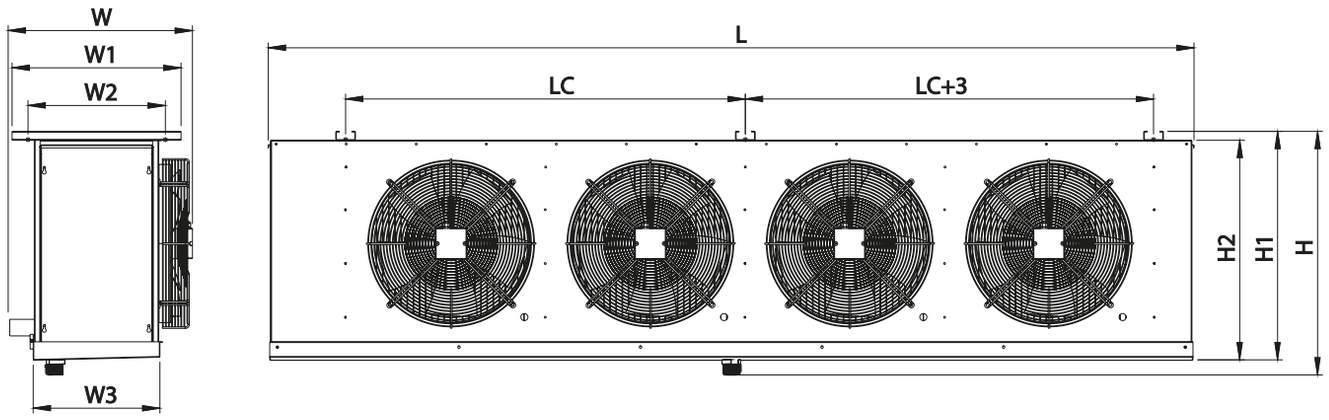
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8"

Hatve / Fin Spacing : 6 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **230V AC 1300-1400 d/d-rpm**			**Defrost Isıtıcılar** Electric Defrost
			SC10 Tin=+4 °C Tout= +8 °C (%25 Glycol) Tair= +16 °C (70% RH)	**Special Condition** Tin=-2 °C Tout= +2 °C (%25 Glycol) Tair= +10 °C (70% RH)	**SC11** Tin= -10 °C Tout= -7 °C (%35 Glycol) Tair= 0 °C (85% RH)	**Special Condition** Tin= -8 °C Tout= -4 °C (%35 Glycol) Tair= +2 °C (85% RH)	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow	**B1** **Batarya** Coil
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(n)	(Ømm)	(m³/h)	
GNSA 40112	10,82	4,3	4.095	3.625	2.944	2.500	1	400	2.800	5x300
GNSA 40114	16,22	6,4	6.000	5.601	4.467	3.622		400	2.330	7x300
GNSA 40212	21,64	8,5	8.190	7.250	5.888	5.000	2	400	5.600	5x550
GNSA 40214	32,44	12,8	12.000	11.202	8.934	7.244		400	4.666	7x550
GNSA 40312	32,46	12,8	14.158	13.162	8.678	7.452	3	400	8.400	5x800
GNSA 40314	48,66	19,2	18.000	16.803	13.401	10.866		400	6.990	7x800
GNSA 45212	37,23	14,1	16.588	15.680	15.798	11.424	2	450	8.790	6x700
GNSA 45214	56,24	22,3	21.312	20.004	16.094	12.248		450	7.900	8x700
GNSA 50212	37,49	14,8	21.006	20.221	17.645	15.316		500	12.500	6x700
GNSA 50214	56,24	22,3	24.971	23.806	19.677	13.642		500	10.385	8x700
GNSA 45312	56,24	22,3	27.607	26.440	23.276	21.125	3	450	13.185	6x1050
GNSA 45314	83,77	31,7	33.144	31.438	26.742	22.245		450	11.850	8x1050
GNSA 50312	56,24	22,3	29.880	28.549	24.253	13.919		500	18.750	6x1050
GNSA 50314	83,77	31,7	38.759	37.259	31.848	27.120		500	15.578	8x1050
GNSA 45412	74,50	28,2	33.045	31.220	26.179	15.123	4	450	17.580	6X1350
GNSA 45414	112,48	44,5	44.827	42.558	36.299	30.732		450	15.800	8X1350
GNSA 50412	74,50	29,7	39.546	37.812	32.237	24.942		500	25.000	6X1350
GNSA 50414	112,48	44,5	52.427	50.402	43.199	37.204		500	20.770	8X1350



Model Model	**Boyutlar** Dimensions								
	L	**H**	**W**	**LC**	**H1**	**H2**	**W1**	**W2**	**W3**
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**
GNSA 40112	86	61	56	53	55	55	44	41	34
GNSA 40114	86	61	62	53	55	55	51	48	41
GNSA 40212	136	61	56	103	55	55	44	41	34
GNSA 40214	136	61	62	103	55	55	51	48	41
GNSA 40312	186	61	56	153	58	55	49	45	34
GNSA 40314	186	61	62	153	58	55	55	51	41
GNSA 45212	166	80	56	133	75	72	49	45	34
GNSA 45214	166	80	62	133	75	72	55	51	41
GNSA 50212	166	80	56	133	75	72	49	45	34
GNSA 50214	166	80	62	133	75	72	55	51	41
GNSA 45312	237	80	56	198	75	72	49	45	34
GNSA 45314	237	80	62	198	75	72	55	51	41
GNSA 50312	237	80	56	198	75	72	49	45	34
GNSA 50314	237	80	62	198	75	72	55	51	41
GNSA 45412	302	80	56	130	75	72	49	45	34
GNSA 45414	302	80	62	130	75	72	55	51	41
GNSA 50412	302	80	56	130	75	72	49	45	34
GNSA 50414	302	80	62	130	75	72	55	51	41

GNSS Serisi
GNSS Serie

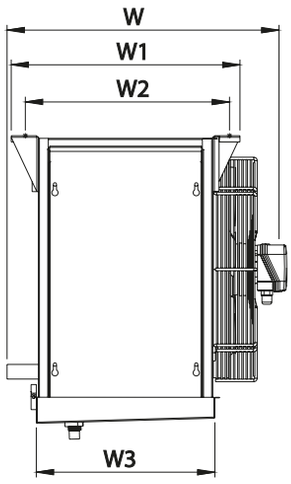
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

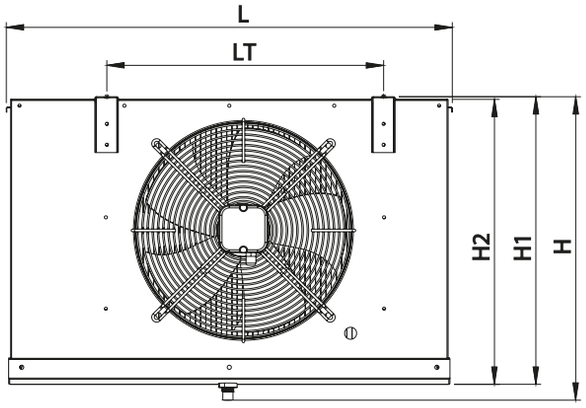
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8”

Hatve / Fin Spacing : 8 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity				**Fanlar** Fans **230V AC 1300-1400 d/d-rpm**			**Defrost Isıtıcılar** Electric Defrost
			SC10 Tin=+4 °C Tout= +8 °C (%25 Glycol) Tair= +16 °C (70% RH)	**Special Condition** Tin=-2 °C Tout= +2 °C (%25 Glycol) Tair= +10 °C (70% RH)	**SC11** Tin= -10 °C Tout= -7 °C (%35 Glycol) Tair= 0 °C (85% RH)	**Special Condition** Tin= -8 °C Tout= -4 °C (%35 Glycol) Tair= +2 °C (85% RH)	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow	**B1** **Batarya** Coil
	(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(n)	(Ømm)	(m³/h)	
GNSS 40112	8,41	4,3	-	-	3.580	2.963	1	400	2.930	5x300
GNSS 40114	12,62	6,4	-	-	4.916	4.405		400	2.500	7x300
GNSS 40212	16,82	8,5	-	-	7.160	5.926	2	400	5.860	5x550
GNSS 40214	25,24	12,8	-	-	9.832	8.810		400	5.000	7x550
GNSS 40312	25,23	12,8	-	-	11.572	10.131	3	400	8.790	5x800
GNSS 40314	37,86	19,2	-	-	14.748	13.215		400	7.500	7x800
GNSS 45212	29,16	14,8	-	-	12.111	10.136	2	450	9.020	6x700
GNSS 45214	43,73	22,3	-	-	15.644	11.558		450	8.225	8x700
GNSS 50212	29,16	14,8	-	-	14.839	12.702		500	13.000	6x700
GNSS 50214	43,73	22,3	-	-	18.915	15.991		500	11.200	8x700
GNSS 45312	43,34	21,1	-	-	17.711	14.462	3	450	13.530	6x1050
GNSS 45314	65,60	33,4	-	-	24.167	20.797		450	12.338	8x1050
GNSS 50312	43,34	21,1	-	-	21.721	18.315		500	19.500	6x1050
GNSS 50314	65,60	33,4	-	-	29.072	25.364		500	16.800	8x1050
GNSS 45412	57,79	29,7	-	-	26.780	20.370	4	450	18.040	6X1350
GNSS 45414	87,46	44,5	-	-	31.155	20.530		450	16.450	8X1350
GNSS 50412	58,32	29,7	-	-	32.475	20.676		500	26.000	6X1350
GNSS 50414	87,46	44,5	-	-	37.682	31.708		500	22.400	8X1350





Model Model	**Boyutlar** Dimensions								
	L	**H**	**W**	**LT**	**H1**	**H2**	**W1**	**W2**	**W3**
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**
GNSS 40112	86	61	56	53	55	55	44	41	34
GNSS 40114	86	61	62	53	55	55	51	48	41
GNSS 40212	136	61	56	103	55	55	44	41	34
GNSS 40214	136	61	62	103	55	55	51	48	41
GNSS 40312	186	61	56	153	58	55	49	45	34
GNSS 40314	186	61	62	153	58	55	55	51	41
GNSS 45212	166	80	56	133	75	72	49	45	34
GNSS 45214	166	80	62	133	75	72	55	51	41
GNSS 50212	166	80	56	133	75	72	49	45	34
GNSS 50214	166	80	62	133	75	72	55	51	41
GNSS 45312	237	80	56	198	75	72	49	45	34
GNSS 45314	237	80	62	198	75	72	55	51	41
GNSS 50312	237	80	56	198	75	72	49	45	34
GNSS 50314	237	80	62	198	75	72	55	51	41
GNSS 45412	302	80	56	130	75	72	49	45	34
GNSS 45414	302	80	62	130	75	72	55	51	41
GNSS 50412	302	80	56	130	75	72	49	45	34
GNSS 50414	302	80	62	130	75	72	55	51	41

GMCD-GMCA Serisi
GMCD-GMCA Serie

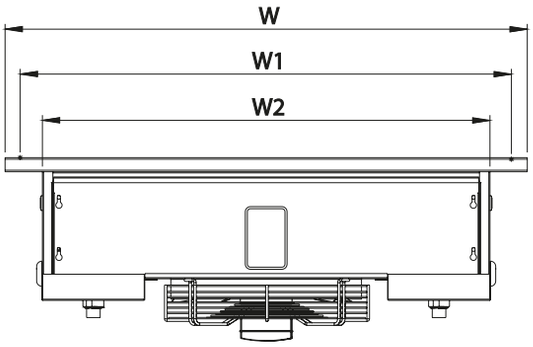
Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

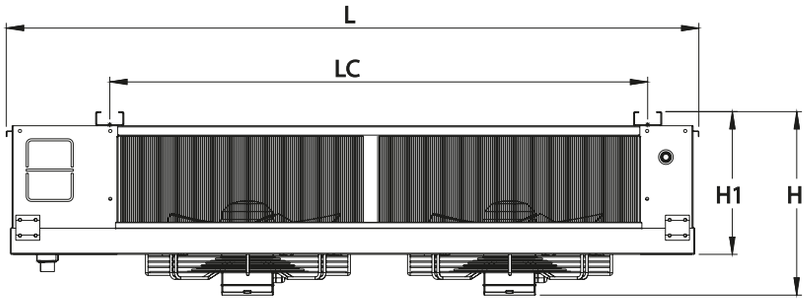
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2”

Hatve / Fin Spacing : 4 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity		**Fanlar** Fans 230V AC 1300-1400 d/d-rpm		
			SC10 Tin=+4 °C Tout= +8 °C (%25 Glycol) Tair= +16 °C (70% RH)	**Special Condition Tin=-2 °C Tout= +2 °C (%25 Glycol) Tair= +10 °C (70% RH)**	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(m³/h)
GMCD40 111	19,48	3,3	5.740	4.980	1	400	3.311
GMCD45 111	25,98	4,3	8.570	7.940		450	4.258
GMCD50 111	30,31	5,1	11.813	11.349		500	6.422
GMCD40 211	38,96	6,6	11.480	9.960	2	400	6.622
GMCD45 211	51,96	8,6	17.140	15.880		450	8.516
GMCD50 211	60,62	10,2	19.740	17.400		500	12.844
GMCD40 311	58,44	9,9	19.496	18.350	3	400	9.216
GMCD45 311	77,94	12,9	25.710	23.820		450	12.774
GMCD50 311	90,93	15,3	29.610	26.100		500	19.266
GMCD40 411	77,92	13,20	27.418	26.296	4	400	12.062
GMCD45 411	103,92	17,20	34.280	31.760		450	17.032
GMCD50 411	121,24	20,40	39.480	34.800		500	25.688
Bakır Boru / Copper Pipe : 1/2”						**Hatve** / Fin Spacing : 6 mm	
GMCA40 111	13,37	3,3	5.610	5.390	1	400	3.678
GMCA45 111	17,83	4,3	6.510	6.020		450	4.552
GMCA50 111	20,80	5,1	8.850	8.460		500	6.900
GMCA40 211	26,74	6,6	11.220	10.780	2	400	7.356
GMCA45 211	35,66	8,6	13.020	12.040		450	9.104
GMCA50 211	41,60	10,2	17.700	16.920		500	13.800
GMCA40 311	40,11	9,9	16.830	16.170	3	400	11.034
GMCA45 311	53,49	12,9	19.530	18.060		450	13.656
GMCA50 311	62,40	15,3	26.550	25.380		500	20.700
GMCA40 411	53,48	13,2	22.440	21.560	4	400	14.712
GMCA45 411	71,32	17,2	26.040	24.080		450	18.208
GMCA50 411	83,20	20,4	35.400	33.840		500	27.600





Model Model	**Boyutlar** Dimensions							
	L	**H**	**W**	**LC**	**H1**	**H2**	**W1**	**W2**
	(cm)	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**	**(cm)**
GMCD40 111	93	44	100	63	34	--	96	86
GMCD45 111	93	51	110	63	42	--	106	96
GMCD50 111	103	51	110	73	42	--	106	96
GMCD40 211	153	44	100	123	34	--	96	86
GMCD45 211	153	51	110	123	42	--	106	96
GMCD50 211	173	51	110	123	42	--	106	96
GMCD40 311	213	44	100	183	34	--	96	86
GMCD45 311	213	51	110	183	42	--	106	96
GMCD50 311	243	51	110	213	42	--	106	96
GMCD40 411	273	44	100	243	34	--	96	86
GMCD45 411	273	51	110	243	42	--	106	96
GMCD50 411	313	51	110	283	42	--	106	96
GMCA40 111	93	44	100	63	34	--	96	86
GMCA45 111	93	51	110	63	42	--	106	96
GMCA50 111	103	51	110	73	42	--	106	96
GMCA40 211	153	44	100	123	34	--	96	86
GMCA45 211	153	51	110	123	42	--	106	96
GMCA50 211	173	51	110	123	42	--	106	96
GMCA40 311	213	44	100	183	34	--	96	86
GMCA45 311	213	51	110	183	42	--	106	96
GMCA50 311	243	51	110	213	42	--	106	96
GMCA40 411	273	44	100	243	34	--	96	86
GMCA45 411	273	51	110	243	42	--	106	96
GMCA50 411	313	51	110	283	42	--	106	96

NEW GENERATION COOLERS

Yeni Nesil Soğutucular

BUZÇELİK
THERMIC EQUIPMENTS INDUSTRY

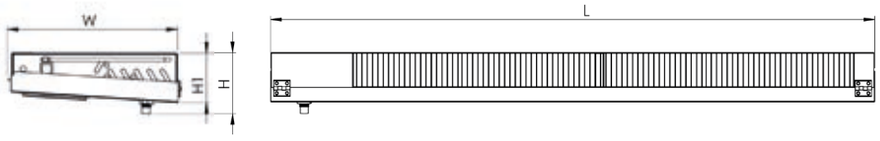
VİTRİN SOĞUTUCULAR

Gravity Coolers

BES-KKTD-KKCA-KKCD-LVY
SÜTLÜK / FORCED AIR
REYON / TWO ROWS
ANKASTRE / ONE ROW
YAN/ ONE ROW SIDE

15 BES Serisi
15 BES Serie

Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

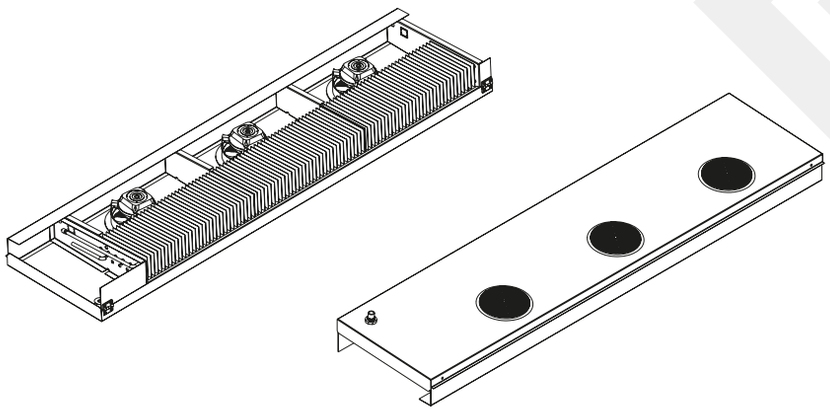


Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8"

Hatve / Fin Spacing : 6 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity		Fanlar Fans				Boyutlar Dimensions			
			SC1 10°C/0°C	SC2 0°C/ - 8°C	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Hava Debisi Air Flow	Toplam Güç Total Power	L	H	W	H1
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(m3/h)	(Watt)	(cm)	(cm)	(cm)	(cm)
15BES 80	3,02	0,6	430	290	1	150	190	36	80	15	43	12
15BES 90	3,57	0,7	467	316		150	190	36	90	15	43	12
15BES 100	4,62	0,8	813	542	2	150	380	72	100	15	43	12
15BES 110	4,66	0,9	860	578		150	380	72	110	15	43	12
15BES 120	5,21	1,0	900	609		150	380	72	120	15	43	12
15BES 130	5,76	1,2	936	636		150	380	72	130	15	43	12
15BES 140	6,31	1,3	967	659		150	380	72	140	15	43	12
15BES 150	6,86	1,4	996	680		150	380	72	150	15	43	12
15BES 160	7,41	1,5	1.021	698		150	380	72	160	15	43	12
15BES 170	7,96	1,6	1.360	928	3	150	570	108	170	15	43	12
15BES 180	8,51	1,7	1.389	947		150	570	108	180	15	43	12
15BES 190	9,05	1,8	1.414	964		150	570	108	190	15	43	12
15BES 200	9,60	1,9	1.438	980		150	570	108	200	15	43	12
15BES 210	10,15	2,0	1.460	994		150	570	108	210	15	43	12
15BES 220	10,70	2,1	1.492	1.009		150	570	108	220	15	43	12
15BES 230	11,25	2,2	1.521	1.030		150	570	108	230	15	43	12
15BES 240	11,80	2,3	1.549	1.050		150	570	108	240	15	43	12
15BES 250	12,35	2,5	1.574	1.068		150	570	108	250	15	43	12
15BES 260	12,90	2,6	1.954	1.333	4	150	760	144	260	15	43	12
15BES 270	13,44	2,7	1.982	1.354		150	760	144	270	15	43	12
15BES 280	14,00	2,7	2.009	1.374		150	760	144	280	15	43	12
15BES 290	14,54	2,9	2.035	1.393		150	760	144	290	15	43	12
15BES 300	15,09	3,0	2.059	1.410		150	760	144	300	15	43	12
15BES 310	15,64	3,1	2.422	1.651	5	150	950	180	310	15	43	12
15BES 320	16,19	3,2	2.449	1.669		150	950	180	320	15	43	12
15BES 330	16,74	3,3	2.475	1.687		150	950	180	330	15	43	12
15BES 340	17,28	3,4	2.500	1.703		150	950	180	340	15	43	12
15BES 350	17,83	3,5	2.523	1.718		150	950	180	350	15	43	12
15BES 360	18,38	3,7	2.880	1.963	6	150	1.140	216	360	15	43	12
15BES 370	18,93	3,8	2.910	1.986		150	1.140	216	370	15	43	12
15BES 380	19,48	3,9	2.940	2.007		150	1.140	216	380	15	43	12
15BES 390	20,03	4,0	2.968	2.028		150	1.140	216	390	15	43	12
15BES 400	20,58	4,1	3.000	2.050		150	1.140	216	400	15	43	12



20 BES Serisi
20 BES Serie

Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

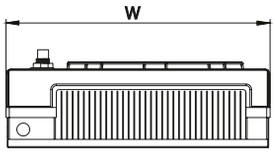
Bakır Boru / Copper Pipe : 3/8”

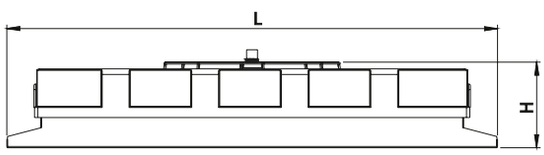
Hatve / Fin Spacing **: 6** mm

Batarya Özellikleri
Heat Exchanger Specifications

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity		**Fanlar** Fans				**Boyutlar** Dimensions			
			SC1 10°C/0°C	**SC2 0°C/ - 8°C**	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow	**Toplam Güç** Total Power	**L**	**H**	**W**	**H1**
	(m²)	(dm³)	(Watt)	(Watt)	(n)	(Ømm)	(m3/h)	(Watt)	(cm)	(cm)	(cm)	(cm)
20BES 80	3,02	0,6	650	417	1	200	355	36	80	15	48	12
20BES 90	3,57	0,7	721	467		200	355	36	90	15	48	12
20BES 100	4,62	0,8	1.190	803		200	700	72	100	15	48	12
20BES 110	4,66	0,9	1.267	857		200	700	72	110	15	48	12
20BES 120	5,21	1,0	1.330	904		200	700	72	120	15	48	12
20BES 130	5,76	1,2	1.389	946	2	200	700	72	130	15	48	12
20BES 140	6,31	1,3	1.441	983		200	700	72	140	15	48	12
20BES 150	6,86	1,4	1.490	1.016		200	700	72	150	15	48	12
20BES 160	7,41	1,5	1.531	1.046		200	700	72	160	15	48	12
20BES 170	7,96	1,6	1.977	1.309		200	1.050	108	170	15	48	12
20BES 180	8,51	1,7	2.048	1.368		200	1.050	108	180	15	48	12
20BES 190	9,05	1,8	2.112	1.424		200	1.050	108	190	15	48	12
20BES 200	9,60	1,9	2.139	1.457		200	1.050	108	200	15	48	12
20BES 210	10,15	2,0	2.192	1.494	3	200	1.050	108	210	15	48	12
20BES 220	10,70	2,1	2.242	1.528		200	1.050	108	220	15	48	12
20BES 230	11,25	2,2	2.290	1.560		200	1.050	108	230	15	48	12
20BES 240	11,80	2,3	2.334	1.590		200	1.050	108	240	15	48	12
20BES 250	12,35	2,5	2.376	1.619		200	1.050	108	250	15	48	12
20BES 260	12,90	2,6	2.878	1.959		200	1.400	144	260	15	48	12
20BES 270	13,44	2,7	2.924	1.991		200	1.400	144	270	15	48	12
20BES 280	14,00	2,7	2.972	2.021	4	200	1.400	144	280	15	48	12
20BES 290	14,54	2,9	3.013	2.049		200	1.400	144	290	15	48	12
20BES 300	15,09	3,0	3.053	2.075		200	1.400	144	300	15	48	12
20BES 310	15,64	3,1	3.706	2.518		200	1.875	180	310	15	48	12
20BES 320	16,19	3,2	3.763	2.557		200	1.875	180	320	15	48	12
20BES 330	16,74	3,3	3.817	2.594	5	200	1.875	180	330	15	48	12
20BES 340	17,28	3,4	3.858	2.630		200	1.875	180	340	15	48	12
20BES 350	17,83	3,5	3.908	2.664		200	1.875	180	350	15	48	12
20BES 360	18,38	3,7	4.420	3.003		200	2.250	216	360	15	48	12
20BES 370	18,93	3,8	4.472	3.039		200	2.250	216	370	15	48	12
20BES 380	19,48	3,9	4.523	3.074	6	200	2.250	216	380	15	48	12
20BES 390	20,03	4,0	4.572	3.107		200	2.250	216	390	15	48	12
20BES 400	20,58	4,1	4.619	3.139		200	2.250	216	400	15	48	12

KKTD-KKCA-KKCD Serisi
KKTD-KKCA-KKCD Serie



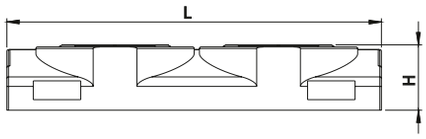


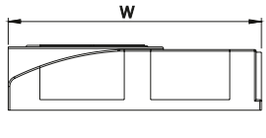
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 3/8”

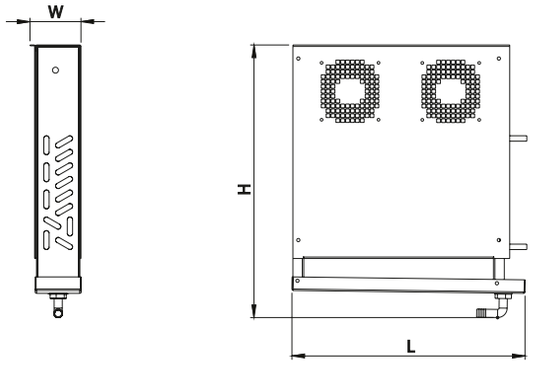
Hatve / Fin Spacing **: 4 mm** -6 mm

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity		**Fanlar** Fans			**Boyutlar** Dimensions		
			SC1 10°C/0°C	**SC2 0°C/ - 8°C**	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow	**L**	**H**	**W**
	(m²)	**(dm³)**	**(Watt)**	**(Watt)**	**(n)**	**(Ømm)**	**(m3/h)**	**(cm)**	**(cm)**	**(cm)**
20KKTD111	2,55	0,4	568	307	1	200	325	44	14	49
20KKTD211	4,31	0,5	1.177	746	2	200	650	74	14	49
20KKTD212	4,94	0,7	1.323	866		200	650	74	14	49
20KKTD311	7,21	1,0	1.857	1.121	3	200	975	104	14	49





Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity		**Fanlar** Fans			**Boyutlar** Dimensions		
			SC1 10°C/0°C	**SC2 0°C/ - 8°C**	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow	**L**	**H**	**W**
	(m²)	**(dm³)**	**(Watt)**	**(Watt)**	**(n)**	**(Ømm)**	**(m3/h)**	**(cm)**	**(cm)**	**(cm)**
25KKCA111	3,84	0,8	1.400	758	1	250	570	88	15	47,5
30KKCA111	3,84	0,8	1.558	874		300	750	88	15	47,5
30KKCA112	5,12	1,0	1.970	1.120		300	900	88	18	47,5
25KKCD112	5,56	0,8	1.574	886		250	520	88	15	47,5
30KKCD112	5,56	0,8	1.816	1.082		300	700	88	15	47,5
30KKCD113	7,43	1,0	2.150	1.400		300	800	88	18	47,5



LVY Serisi
LVY Serie

Bakır Boru / Copper Pipe : 3/8”

Hatve / Fin Spacing : **3,5** mm

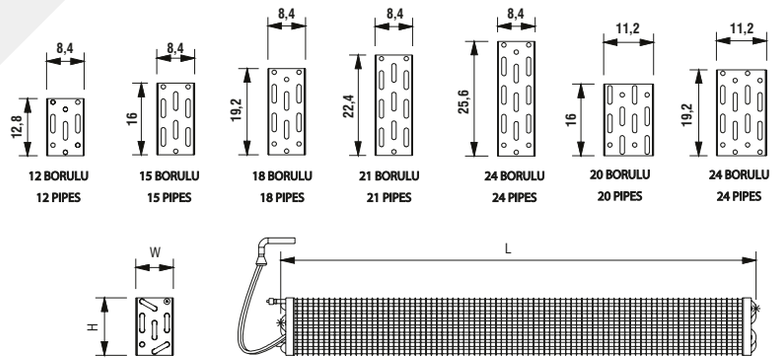
Batarya Özellikleri
Heat Exchanger Specifications

Model Model	**Yüzey** Area	**Boru Hacmi** Tube Volume	**Kapasite** Capacity	**Fanlar** Fans			**Boyutlar** Dimensions		
			SC1 10°C/0°C	**Fan Sayısı** Number of Fan	**Fan Çapı** Fan Diameter	**Hava Debisi** Air Flow	**L**	**H**	**W**
	(m²)	**(dm³)**	**(Watt)**	**(n)**	**(Ømm)**	**(m3/h)**	**(cm)**	**(cm)**	**(cm)**
12LVY117	2,23	0,4	370	1	120	110	44	44	10
12LVY119	2,87	0,6	410		120	110	44	49	10
12LVY110	3,19	0,7	430		120	110	44	64	10
12LVY112	3,82	0,8	450		120	110	44	64	10
12LVY217	2,23	0,4	590	2	120	215	44	44	10
12LVY219	2,87	0,6	660		120	215	44	49	10
12LVY210	3,19	0,7	690		120	215	44	64	10
12LVY212	3,82	0,8	740		120	215	44	64	10

Sütlük Soğutucular
Forced Air Coolers

KVS Serisi
KVS Serie

Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.



Batarya Özellikleri
Heat Exchanger Specifications

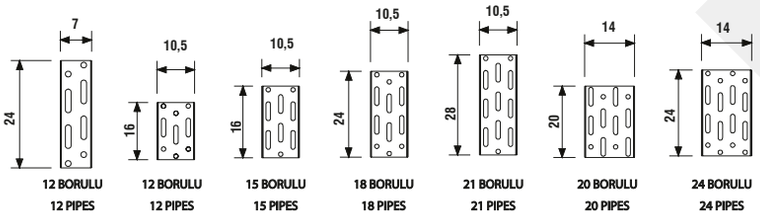
Bakır Boru / Copper Pipe : 3/8”

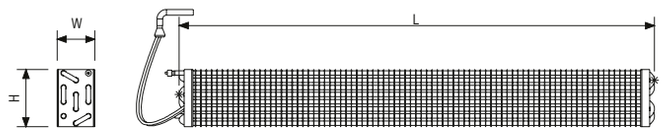
Hatve / Fin Spacing : 6 mm

Sütlük Soğutucular Forced Air Coolers								
Model Model	**Kapasite** Capacity		**Yüzey** Area	**Boru Sayısı** N. of Copper Tube	**Geometri** Geometry	**Boyutlar** Dimensions		
	SC1 **10°C/0°C**	**SC2** **0°C/ - 8°C**				**L**	**H**	**W**
	(Watt)	**(Watt)**	**(m²)**			**(cm)**	**(cm)**	**(cm)**
100 KVS 1243	1.069	700	3,7	12	4X3	100	12,8	8,4
150 KVS 1243	1.653	1.111	5,5			150	12,8	8,4
200 KVS 1243	2.303	1.506	7,3			200	12,8	8,4
250 KVS 1243	2.898	1.925	9,1			250	12,8	8,4
100 KVS 1553	1.294	859	4,6	15	5X3	100	16	8,4
150 KVS 1553	1.931	1.222	6,9			150	16	8,4
200 KVS 1553	2.654	1.761	9,1			200	16	8,4
250 KVS 1553	3.386	2.278	11,4			250	16	8,4
100 KVS 1863	1.422	956	5,5	18	6X3	100	19,2	8,4
150 KVS 1863	2.162	1.428	8,2			150	19,2	8,4
200 KVS 1863	2.915	1.958	11,0			200	19,2	8,4
250 KVS 1863	3.691	2.448	13,7			250	19,2	8,4
100 KVS 2173	1.520	1.033	6,4	21	7X3	100	22,4	8,4
150 KVS 2173	2.123	1.477	9,6			150	22,4	8,4
200 KVS 2173	3.135	2.126	12,8			200	22,4	8,4
250 KVS 2173	4.004	2.680	16,0			250	22,4	8,4
100 KVS 2483	1.597	1.094	7,3	24	8X3	100	25,6	8,4
150 KVS 2483	2.521	1.689	11,0			150	25,6	8,4
200 KVS 2483	3.288	2.239	14,6			200	25,6	8,4
250 KVS 2483	4.260	2.874	18,3			250	25,6	8,4
100 KVS 2054	1.611	1.087	6,1	20	5X4	100	16	11,2
150 KVS 2054	2.499	1.660	9,1			150	16	11,2
200 KVS 2054	3.311	2.238	12,2			200	16	11,2
250 KVS 2054	4.265	2.851	15,2			250	16	11,2
100 KVS 2464	1.727	1.076	7,3	24	6X4	100	19,2	11,2
150 KVS 2464	2.735	1.838	11,0			150	19,2	11,2
200 KVS 2464	3.624	2.416	14,6			200	19,2	11,2
250 KVS 2464	4.615	3.125	18,3			250	19,2	11,2

Sütlük Soğutucular
Forced Air Coolers

MVS Serisi
MVS Serie





Belirtilen kapasiteler EBM, Ziehl-Abegg ve muadili fanlara göre hesaplanmıştır.
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

Bakır Boru / Copper Pipe : 1/2”

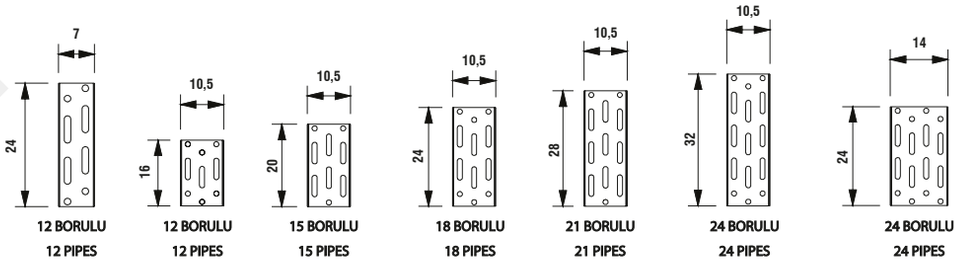
Hatve / Fin Spacing **: 8** mm

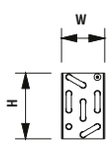
Batarya Özellikleri
Heat Exchanger Specifications

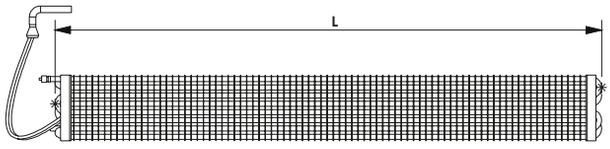
Sütlük Soğutucular Forced Air Coolers								
Model Model	**Kapasite** Capacity		**Yüzey** Area	**Boru Sayısı** N. of Copper Tube	**Geometri** Geometry	**Boyutlar** Dimensions		
	SC1 10°C/0°C	**SC2 0°C/ - 8°C**				**L**	**H**	**W**
	(Watt)	**(Watt)**	**(m²)**			**(cm)**	**(cm)**	**(cm)**
100 MVS 1262	1.025	537	4,3	12	6X2	100	24	7
150 MVS 1262	1.801	1.084	6,5			150	24	7
200 MVS 1262	2.439	1.605	8,6			200	24	7
250 MVS 1262	3.037	2.032	10,7			250	24	7
100 MVS 1243	1.136	583	4,3	12	4X3	100	16	10,5
150 MVS 1243	1.901	1.165	6,5			150	16	10,5
200 MVS 1243	2.591	1.708	8,6			200	16	10,5
250 MVS 1243	3.041	1.676	10,8			250	16	10,5
100 MVS 1553	1.408	769	5,4	15	5X3	100	20	10,5
150 MVS 1553	2.291	1.504	8,1			150	20	10,5
200 MVS 1553	3.028	2.031	10,8			200	20	10,5
250 MVS 1553	3.731	2.280	13,4			250	20	10,5
100 MVS 1863	1.639	969	6,5	18	6X3	100	24	10,5
150 MVS 1863	2.528	1.681	9,7			150	24	10,5
200 MVS 1863	3.286	1.934	12,9			200	24	10,5
250 MVS 1863	4.206	2.749	16,1			250	24	10,5
100 MVS 2173	1.814	1.142	7,5	21	7X3	100	28	10,5
150 MVS 2173	2.734	1.837	11,3			150	28	10,5
200 MVS 2173	3.644	2.274	15,0			200	28	10,5
250 MVS 2173	4.638	3.075	18,8			250	28	10,5
100 MVS 2054	1.784	1.109	7,2	20	5X4	100	20	14
150 MVS 2054	2.760	1.853	10,7			150	20	14
200 MVS 2054	3.579	2.211	14,3			200	20	14
250 MVS 2054	4.526	2.994	17,9			250	20	14
100 MVS 2464	1.987	1.298	8,6	24	6X4	100	24	14
150 MVS 2464	2.911	1.686	12,9			150	24	14
200 MVS 2464	4.033	2.639	17,2			200	24	14
250 MVS 2464	5.007	3.356	21,5			250	24	14

Sütlük Soğutucular
Forced Air Coolers

NVS Serisi
NVS Serie





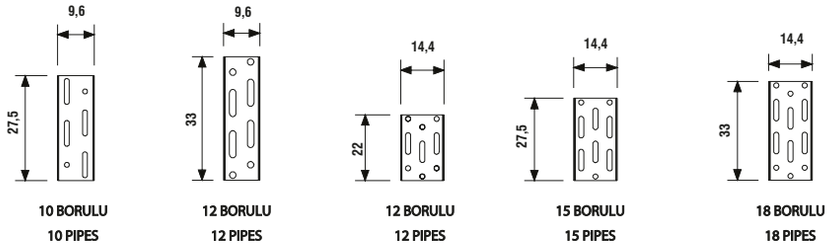


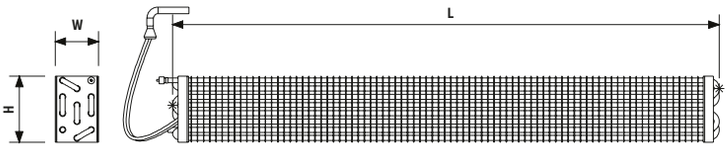
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 5/8" | **Kalıp Geometrisi** / Mould Geometry : 40 mm x 35 mm | **Hatve** / Fin Spacing : 8 mm

Sütlük Soğutucular Forced Air Coolers								
Model Model	**Kapasite** Capacity		**Yüzey** Area	**Boru Sayısı** N. of Copper Tube	**Geometri** Geometry	**Boyutlar** Dimensions		
	SC1 **10°C/0°C**	**SC2** **0°C/ - 8°C**				**L**	**H**	**W**
	(Watt)	**(Watt)**	**(m²)**			**(cm)**	**(cm)**	**(cm)**
100 NVS 1262	853	472	4,2	12	6X2	100	24	7
150 NVS 1262	1.684	882	6,3			150	24	7
200 NVS 1262	2.587	1.451	8,4			200	24	7
250 NVS 1262	3.325	2.096	10,5			250	24	7
100 NVS 1243	945	517	4,2	12	4X3	100	16	10,5
150 NVS 1243	1.984	1.010	6,3			150	16	10,5
200 NVS 1243	2.985	1.738	8,4			200	16	10,5
250 NVS 1243	3.743	2.426	10,5			250	16	10,5
100 NVS 1553	1.268	663	5,3	15	5X3	100	20	10,5
150 NVS 1553	2.439	1.329	7,9			150	20	10,5
200 NVS 1553	3.375	2.141	10,5			200	20	10,5
250 NVS 1553	4.248	2.817	13,1			250	20	10,5
100 NVS 1863	1.549	827	6,3	18	6X3	100	24	10,5
150 NVS 1863	2.698	1.591	9,5			150	24	10,5
200 NVS 1863	3.673	2.415	12,6			200	24	10,5
250 NVS 1863	4.550	3.054	15,8			250	24	10,5
100 NVS 2173	1.767	973	7,4	21	7X3	100	28	10,5
150 NVS 2173	2.910	1.816	11,0			150	28	10,5
200 NVS 2173	3.903	2.607	14,7			200	28	10,5
250 NVS 2173	4.768	3.230	18,4			250	28	10,5
100 NVS 2483	1.951	1.104	8,4	24	8X3	100	32	10,5
150 NVS 2483	3.084	1.975	12,6			150	32	10,5
200 NVS 2483	4.084	2.749	16,8			200	32	10,5
250 NVS 2483	5.091	3.043	21,0			250	32	10,5
100 NVS 2464	2.181	1.223	8,4	24	6X4	100	24	14
150 NVS 2464	3.364	2.188	12,6			150	24	14
200 NVS 2464	4.426	2.989	16,8			200	24	14
250 NVS 2464	5.565	3.398	21,0			250	24	14

Sütlük Soğutucular
Forced Air Coolers





OVS Serisi
OVS Serie

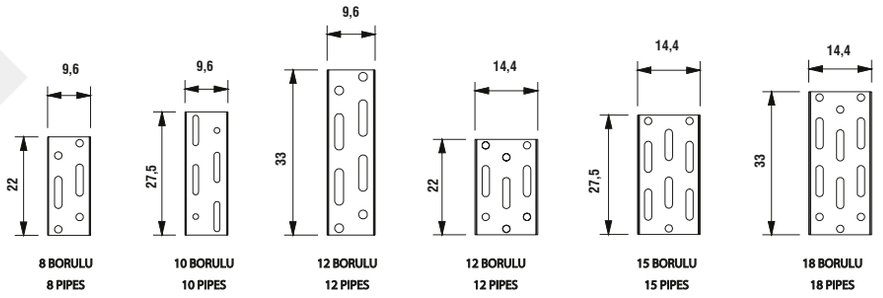
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2” | **Kalıp Geometrisi** / Mould Geometry : 55 mm x 48 mm | **Hatve** / Fin Spacing : 8 mm

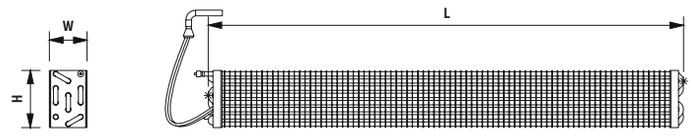
Sütlük Soğutucular Forced Air Coolers								
Model Model	**Kapasite** Capacity		**Yüzey** Area	**Boru Sayısı** N. of Copper Tube	**Geometri** Geometry	**Boyutlar** Dimensions		
	SC1 10°C/0°C	**SC2 0°C/ - 8°C**				**L**	**H**	**W**
	(Watt)	**(Watt)**	**(m²)**			**(cm)**	**(cm)**	**(cm)**
100 OVS 1052	1.069	610	6,7	10	5X2	100	27,5	9,6
150 OVS 1052	1.797	1.127	12,0			150	27,5	9,6
200 OVS 1052	2.467	1.660	13,4			200	27,5	9,6
250 OVS 1052	3.091	2.103	16,7			250	27,5	9,6
100 OVS 1262	1.256	726	8,0	12	6X2	100	33	9,6
150 OVS 1262	2.027	1.353	12,0			150	33	9,6
200 OVS 1262	2.739	1.857	16,0			200	33	9,6
250 OVS 1262	3.375	2.314	20,0			250	33	9,6
100 OVS 1243	1.411	815	8,0	12	4X3	100	22	14,4
150 OVS 1243	2.257	1.514	12,0			150	22	14,4
200 OVS 1243	3.039	2.066	16,0			200	22	14,4
250 OVS 1243	3.712	2.557	20,0			250	22	14,4
100 OVS 1553	1.658	1.024	10,0	15	5X3	100	27,5	14,4
150 OVS 1553	2.567	1.738	15,0			150	27,5	14,4
200 OVS 1553	3.319	2.042	20,0			200	27,5	14,4
250 OVS 1553	4.263	2.867	25,0			250	27,5	14,4
100 OVS 1863	1.851	1.211	12,0	18	6X3	100	33	14,4
150 OVS 1863	2.801	1.911	18,0			150	33	14,4
200 OVS 1863	3.712	2.415	24,0			200	33	14,4
250 OVS 1863	4.704	3.182	30,0			250	33	14,4

Sütlük Soğutucular
Forced Air Coolers

PVS Serisi
PVS Serie



Batarya Özellikleri
Heat Exchanger Specifications

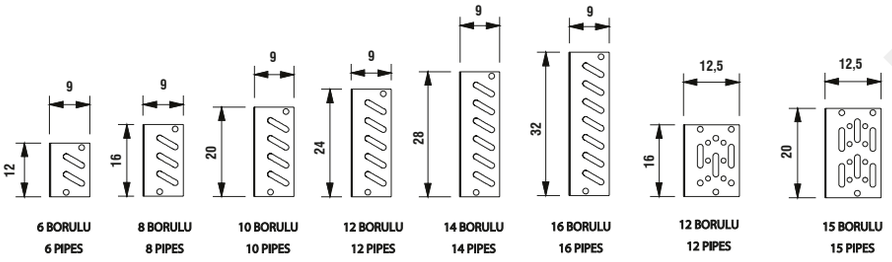


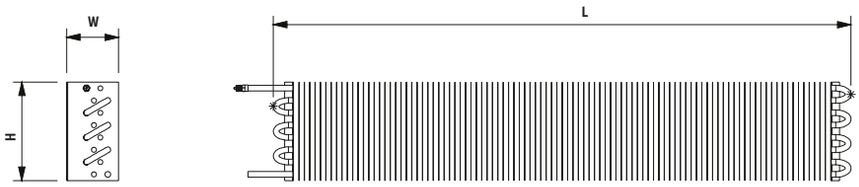
Bakır Boru / Copper Pipe : 5/8" | **Kalıp Geometrisi** / Mould Geometry : 55 mm x 48 mm | **Hatve** / Fin Spacing : 8 mm

Sütlük Soğutucular Forced Air Coolers								
Model Model	**Kapasite** Capacity		**Yüzey** Area	**Boru Sayısı** N. of Copper Tube	**Geometri** Geometry	**Boyutlar** Dimensions		
	SC1 **10°C/0°C**	**SC2** **0°C/ - 8°C**				**L**	**H**	**W**
	(Watt)	**(Watt)**	**(m²)**			**(cm)**	**(cm)**	**(cm)**
100 PVS 842	727	464	5,3	8	4X2	100	22	9,6
150 PVS 842	1.336	774	7,9			150	22	9,6
200 PVS 842	2.145	1.164	10,6			200	22	9,6
250 PVS 842	2.895	1.698	13,2			250	22	9,6
100 PVS 1052	926	562	6,6	10	5X2	100	27,5	9,6
150 PVS 1052	1.704	951	9,9			150	27,5	9,6
200 PVS 1052	2.608	1.500	13,2			200	27,5	9,6
250 PVS 1052	3.362	2.166	16,5			250	27,5	9,6
100 PVS 1262	1.118	652	7,9	12	6X2	100	33	9,6
150 PVS 1262	2.032	1.152	11,9			150	33	9,6
200 PVS 1262	2.937	1.809	15,9			200	33	9,6
250 PVS 1262	3.740	2.502	19,8			250	33	9,6
100 PVS 1243	1.254	727	7,9	12	4X3	100	22	14,4
150 PVS 1243	2.346	1.302	11,9			150	22	14,4
200 PVS 1243	3.290	2.101	15,9			200	22	14,4
250 PVS 1243	4.181	2.803	19,8			250	22	14,4
100 PVS 1553	1.569	892	9,9	15	5X3	100	26	14,4
150 PVS 1553	2.728	1.636	14,9			150	27,5	14,4
200 PVS 1553	3.730	2.500	19,8			200	27,5	14,4
250 PVS 1553	4.653	3.157	24,8			250	27,5	14,4
100 PVS 1863	1.846	1.065	11,9	18	6X3	100	33	14,4
150 PVS 1863	3.020	1.930	17,8			150	33	14,4
200 PVS 1863	4.064	2.749	23,8			200	33	14,4
250 PVS 1863	4.985	2.915	29,7			250	33	14,4

Reyon Soğutucular
Gravity Coolers

MVR Serisi
MVR Serie





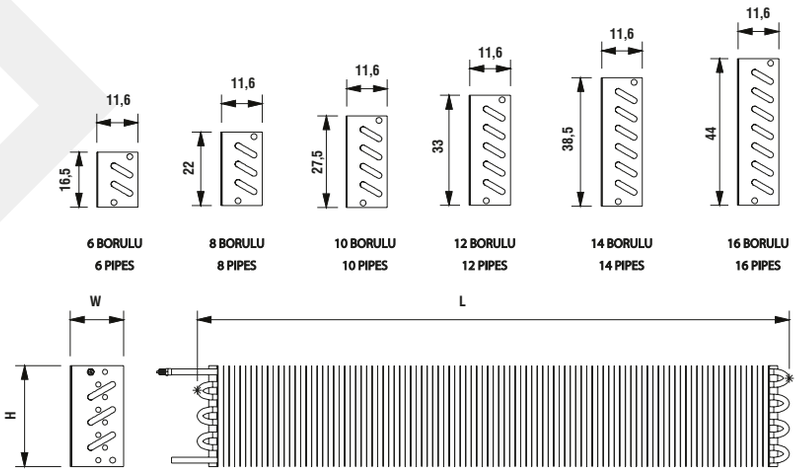
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2” | **Kalıp Geometrisi** / Mould Geometry : 40 mm x 35 mm | **Hatve** / Fin Spacing : 12mm

Reyon Soğutucular Gravity Coolers								
Model Model	**Kapasite** Capacity		**Yüzey** Area	**Boru Sayısı** N. of Copper Tube	**Geometri** Geometry	**Boyutlar** Dimensions		
	SC1 10°C/0°C	**SC2 0°C/ - 8°C**				**L**	**H**	**W**
	(Watt)	**(Watt)**	**(m²)**			**(cm)**	**(cm)**	**(cm)**
140 MVR 632	316	183	2,1	6	3X2	140	12	9
200 MVR 632	509	292	3,0			200	12	9
260 MVR 632	742	427	3,8			260	12	9
140 MVR 842	408	239	2,8	8	4X2	140	16	9
200 MVR 842	641	377	4,0			200	16	9
260 MVR 842	914	545	5,2			260	16	9
140 MVR 1052	487	289	3,5	10	5X2	140	20	9
200 MVR 1052	748	450	5,0			200	20	9
260 MVR 1052	1.049	642	6,6			260	20	9
140 MVR 1262	553	333	4,2	12	6X2	140	24	9
200 MVR 1262	835	512	6,1			200	24	9
260 MVR 1262	1.161	722	7,9			260	24	9
140 MVR 1472	610	373	4,9	14	7X2	140	28	9
200 MVR 1472	910	566	7,1			200	28	9
260 MVR 1472	1.244	792	9,2			260	28	9
140 MVR 1682	660	407	5,6	16	8X2	140	32	9
200 MVR 1682	974	612	8,1			200	32	9
260 MVR 1682	1.309	850	10,5			260	32	9
140 MVR 1243	650	387	4,2	12	4X3	140	16	12,5
200 MVR 1243	991	603	6,1			200	16	12,5
260 MVR 1243	1.362	860	7,9			260	16	12,5
140 MVR 1553	748	455	5,3	15	5X3	140	20	12,5
200 MVR 1553	1.117	696	7,6			200	20	12,5
260 MVR 1553	1.484	970	9,8			260	20	12,5

Reyon Soğutucular
Gravity Coolers

OVR-PVR Serisi
OVR-PVR Serie

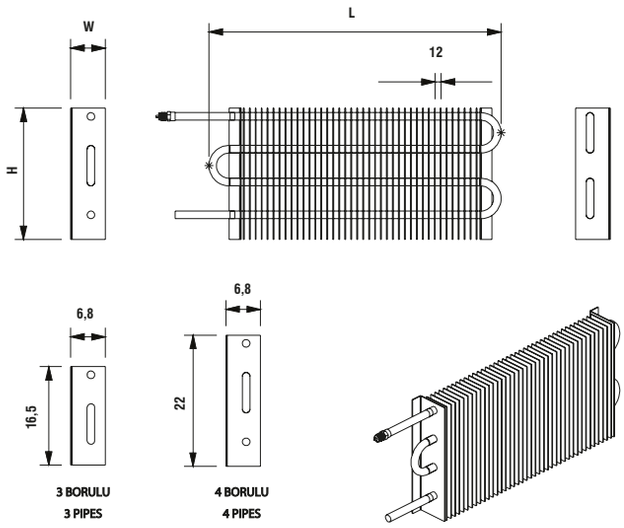


Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2" | **Kalıp Geometrisi** / Mould Geometry : 55 mm x 48 mm | **Hatve** / Fin Spacing : 12 mm

Reyon Soğutucular Gravity Coolers								
Model Model	**Kapasite** Capacity		**Yüzey** Area	**Boru Sayısı** N. of Copper Tube	**Geometri** Geometry	**Boyutlar** Dimensions		
	SC1 10°C/0°C	**SC2 0°C/ - 8°C**				**L**	**H**	**W**
	(Watt)	**(Watt)**	**(m²)**			**(cm)**	**(cm)**	**(cm)**
140 OVR 632	409	253	3,9	6	3X2	140	16,5	11,6
200 OVR 632	631	385	5,5			200	16,5	11,6
260 OVR 632	896	544	7,2			260	16,5	11,6
140 OVR 842	515	319	5,1	8	4X2	140	22	11,6
200 OVR 842	783	484	7,3			200	22	11,6
260 OVR 842	1.099	681	9,5			260	22	11,6
140 OVR 1052	604	377	6,4	10	5X2	140	27,5	11,6
200 OVR 1052	907	567	9,2			200	27,5	11,6
260 OVR 1052	1.261	794	11,9			260	27,5	11,6
140 OVR 1262	680	428	7,7	12	6X2	140	33	11,6
200 OVR 1262	1.010	639	11,0			200	33	11,6
260 OVR 1262	1.375	890	14,3			260	33	11,6
140 OVR 1472	745	472	9,0	14	7X2	140	38,5	11,6
200 OVR 1472	1.098	701	12,8			200	38,5	11,6
260 OVR 1472	1.463	967	16,7			260	38,5	11,6
140 OVR 1682	802	512	10,3	16	8X2	140	44	11,6
200 OVR 1682	1.172	755	14,7			200	44	11,6
260 OVR 1682	1.537	1.026	19,1			260	44	11,6
Bakır Boru / Copper Pipe : 5/8"			**Kalıp Geometrisi** / Mould Geometry : 55 mm x 48 mm			**Hatve** / Fin Spacing : 12 mm		
100 PVR 632	263	168	2,7	6	3X2	100	16,5	11,6
150 PVR 632	428	265	4,1			150	16,5	11,6
200 PVR 632	622	376	5,5			200	16,5	11,6
250 PVR 632	840	502	6,9			250	16,5	11,6
300 PVR 632	1.079	642	8,2			300	16,5	11,6
100 PVR 842	330	209	3,7	8	4X2	100	22	11,6
150 PVR 842	542	335	5,5			150	22	11,6
200 PVR 842	785	479	7,3			200	22	11,6
250 PVR 842	1.053	639	9,1			250	22	11,6
300 PVR 842	1.340	815	11,0			300	22	11,6

Ankastre Soğutucular
Gravity Coolers



OVA-PVA Serisi
OVA-PVA Serie

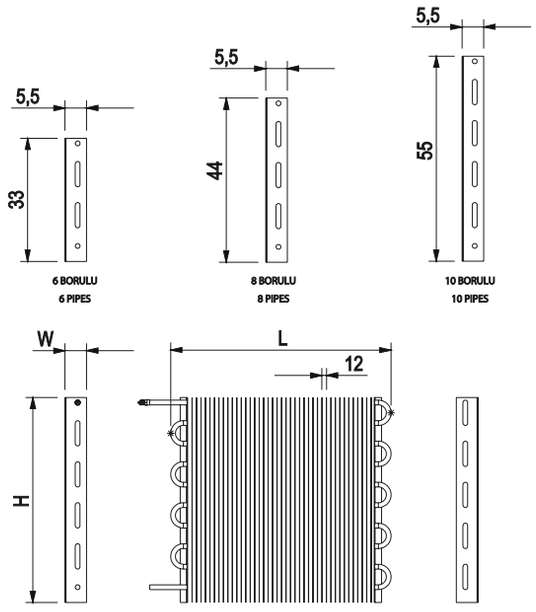
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2" | **Kalıp Geometrisi** / Mould Geometry : 55 mm x 48 mm | **Hatve** / Fin Spacing : 12 mm

Ankastre Soğutucular Gravity Coolers								
Model Model	**Kapasite** Capacity		**Yüzey** Area	**Boru Sayısı** N. of Copper Tube	**Geometri** Geometry	**Boyutlar** Dimensions		
	SC1 10°C/0°C	**SC2 0°C/ - 8°C**				**L**	**H**	**W**
	(Watt)	**(Watt)**	**(m²)**			**(cm)**	**(cm)**	**(cm)**
80 OVA 331	107	73	1,1	3	3X1	80	16,5	6,8
100 OVA 331	128	85	1,4			100	16,5	6,8
120 OVA 331	157	103	1,7			120	16,5	6,8
150 OVA 331	201	130	2,1			150	16,5	6,8
170 OVA 331	233	148	2,3			170	16,5	6,8
200 OVA 331	283	178	2,8			200	16,5	6,8
220 OVA 331	319	199	3,0			220	16,5	6,8
250 OVA 331	375	232	3,4			250	16,5	6,8
270 OVA 331	414	255	3,7			270	16,5	6,8
80 OVA 441	135	89	1,5	4	4X1	80	2,2	6,8
100 OVA 441	161	105	1,8			100	2,2	6,8
120 OVA 441	197	127	2,2			120	2,2	6,8
150 OVA 441	255	163	2,8			150	2,2	6,8
170 OVA 441	296	187	3,1			170	2,2	6,8
200 OVA 441	362	226	3,7			200	2,2	6,8
220 OVA 441	408	253	4,0			220	2,2	6,8
250 OVA 441	480	296	4,6			250	2,2	6,8
270 OVA 441	530	326	5,0			270	2,2	6,8
Bakır Boru / Copper Pipe : 5/8"		**Kalıp Geometrisi** / Mould Geometry : 55 mm x 48 mm			**Hatve** / Fin Spacing : 12 mm			
80 PVA 331	106	74	1,1	3	3X1	80	16,5	6,8
120 PVA 331	154	103	1,6			120	16,5	6,8
150 PVA 331	196	129	2,1			150	16,5	6,8
170 PVA 331	225	147	2,3			170	16,5	6,8
200 PVA 331	272	175	2,7			200	16,5	6,8
220 PVA 331	304	194	3,0			220	16,5	6,8
250 PVA 331	355	223	3,4			250	16,5	6,8
270 PVA 331	390	243	3,7			270	16,5	6,8
80 PVA 441	133	89	1,5	4	4X1	80	2,2	6,8
120 PVA 441	193	125	2,2			120	2,2	6,8
150 PVA 441	247	158	2,7			150	2,2	6,8
170 PVA 441	286	181	3,1			170	2,2	6,8
200 PVA 441	346	218	3,7			200	2,2	6,8
220 PVA 441	388	243	4,0			220	2,2	6,8
250 PVA 441	455	282	4,6			250	2,2	6,8
270 PVA 441	501	309	4,9			270	2,2	6,8

Yan Soğutucular
Side Gravity Coolers

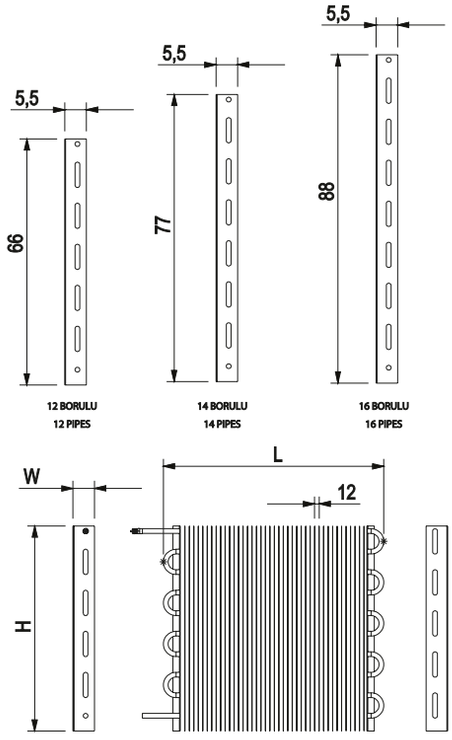
OVY Serisi
OVY Serie



Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2” | **Kalıp Geometrisi** / Mould Geometry : 55 mm x 48 mm | **Hatve** / Fin Spacing : 12 mm

YAN SOĞUTUCULAR Side Gravity Coolers								
Model Model	**Kapasite** Capacity		**Yüzey** Area	**Boru Sayısı** N. of Copper Tube	**Geometri** Geometry	**Boyutlar** Dimensions		
	SC1 **10°C/0°C**	**SC2** **0°C/ - 8°C**				**L**	**H**	**W**
	(Watt)	**(Watt)**	**(m²)**			**(cm)**	**(cm)**	**(cm)**
3 LÜ YAN SOĞUTUCULAR / Side Gravity Coolers For Shop Windows								
20 OVY 361	61	45	0,6	6	6X1	20	33	5,5
25 OVY 361	73	53	0,7			25	33	5,5
30 OVY 361	85	60	0,8			30	33	5,5
35 OVY 361	96	67	1,0			35	33	5,5
40 OVY 361	107	72	1,1			40	33	5,5
45 OVY 361	118	79	1,2			45	33	5,5
50 OVY 361	128	85	1,4			50	33	5,5
55 OVY 361	138	91	1,5			55	33	5,5
60 OVY 361	148	97	1,7			60	33	5,5
4 LÜ YAN SOĞUTUCULAR / Side Gravity Coolers For Shop Windows								
20 OVY 481	77	55	0,7	8	8X1	20	44	5,5
25 OVY 481	93	65	0,9			25	44	5,5
30 OVY 481	107	73	1,1			30	44	5,5
35 OVY 481	122	81	1,3			35	44	5,5
40 OVY 481	135	89	1,5			40	44	5,5
45 OVY 481	148	97	1,7			45	44	5,5
50 OVY 481	161	105	1,8			50	44	5,5
55 OVY 481	173	112	2,0			55	44	5,5
60 OVY 481	185	120	2,2			60	44	5,5
5 Lİ YAN SOĞUTUCULAR / Side Gravity Coolers For Shop Windows								
20 OVY 5101	93	65	0,9	10	10X1	20	55	5,5
25 OVY 5101	111	75	1,1			25	55	5,5
30 OVY 5101	128	85	1,4			30	55	5,5
35 OVY 5101	145	95	1,6			35	55	5,5
40 OVY 5101	161	105	1,8			40	55	5,5
45 OVY 5101	176	115	2,1			45	55	5,5
50 OVY 5101	191	125	2,3			50	55	5,5
55 OVY 5101	204	135	2,5			55	55	5,5
60 OVY 5101	218	145	2,8			60	55	5,5



Yan Soğutucular
Side Gravity Coolers

OVY Serisi
OVY Serie

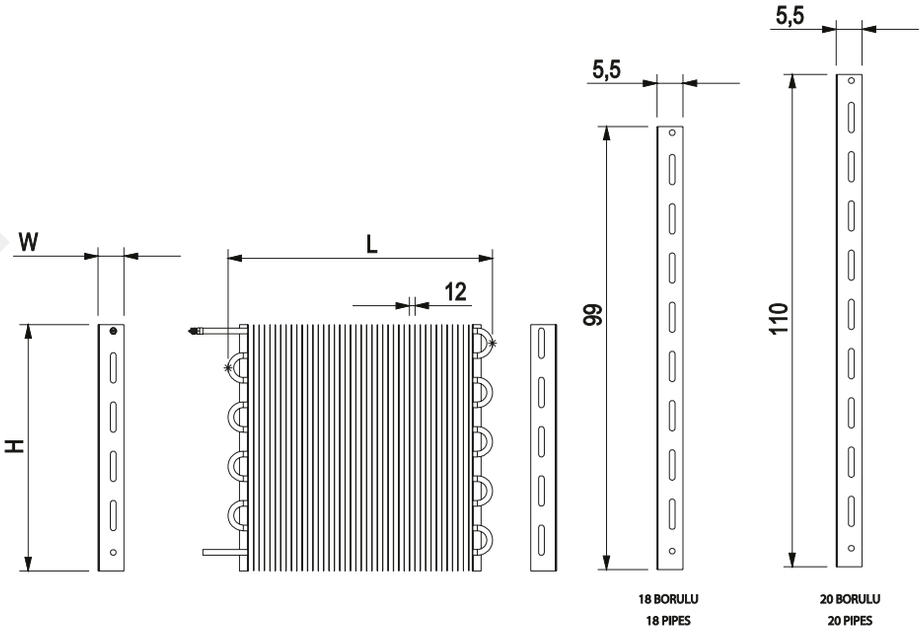
Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2" | **Kalıp Geometrisi** / Mould Geometry : 55 mm x 48 mm | **Hatve** / Fin Spacing : 12 mm

YAN SOĞUTUCULAR Side Gravity Coolers								
Model Model	**Kapasite** Capacity		**Yüzey** Area	**Boru Sayısı** N. of Copper Tube	**Geometri** Geometry	**Boyutlar** Dimensions		
	SC1 10°C/0°C	**SC2 0°C/ - 8°C**				**L**	**H**	**W**
	(Watt)	**(Watt)**	**(m²)**			**(cm)**	**(cm)**	**(cm)**
6 LI YAN SOĞUTUCULAR / Side Gravity Coolers For Shop Windows								
20 OVY 6121	107	73	1,1	12	12X1	20	66	5,5
25 OVY 6121	128	85	1,4			25	66	5,5
30 OVY 6121	148	97	1,7			30	66	5,5
35 OVY 6121	167	109	1,9			35	66	5,5
40 OVY 6121	185	120	2,2			40	66	5,5
45 OVY 6121	202	131	2,5			45	66	5,5
50 OVY 6121	218	141	2,8			50	66	5,5
55 OVY 6121	233	151	3,0			55	66	5,5
60 OVY 6121	248	160	3,3			60	66	5,5
7 Lİ YAN SOĞUTUCULAR / Side Gravity Coolers For Shop Windows								
20 OVY 7141	122	81	1,3	14	14X1	20	77	5,5
25 OVY 7141	145	95	1,6			25	77	5,5
30 OVY 7141	167	109	1,9			30	77	5,5
35 OVY 7141	188	122	2,2			35	77	5,5
40 OVY 7141	207	134	2,6			40	77	5,5
45 OVY 7141	225	146	2,9			45	77	5,5
50 OVY 7141	243	157	3,2			50	77	5,5
55 OVY 7141	259	167	3,5			55	77	5,5
60 OVY 7141	275	177	3,9			60	77	5,5
8 Lİ YAN SOĞUTUCULAR / Side Gravity Coolers For Shop Windows								
20 OVY 8161	135	89	1,5	16	16X1	20	88	5,5
25 OVY 8161	161	105	1,8			25	88	5,5
30 OVY 8161	185	120	2,2			30	88	5,5
35 OVY 8161	200	134	2,6			35	88	5,5
40 OVY 8161	228	147	2,9			40	88	5,5
45 OVY 8161	248	160	3,3			45	88	5,5
50 OVY 8161	266	172	3,7			50	88	5,5
55 OVY 8161	283	183	4,0			55	88	5,5
60 OVY 8161	300	193	4,4			60	88	5,5

Yan Soğutucular
Side Gravity Coolers

OVY Serisi
OVY Serie



Batarya Özellikleri
Heat Exchanger Specifications

Bakır Boru / Copper Pipe : 1/2” | **Kalıp Geometrisi** / Mould Geometry : 55 mm x 48 mm | **Hatve** / Fin Spacing : 12 mm

YAN SOĞUTUCULAR Side Gravity Coolers								
Model Model	**Kapasite** Capacity		**Yüzey** Area	**Boru Sayısı** N. of Copper Tube	**Geometri** Geometry	**Boyutlar** Dimensions		
	SC1 **10°C/0°C**	**SC2** **0°C/ - 8°C**				**L**	**H**	**W**
	(Watt)	**(Watt)**	**(m²)**			**(cm)**	**(cm)**	**(cm)**
9 LU YAN SOĞUTUCULAR / Side Gravity Coolers For Shop Windows								
30 OVY 9181	216	139	2,5	18	18X1	30	99	5,5
35 OVY 9181	243	156	2,9			35	99	5,5
40 OVY 9181	268	172	3,3			40	99	5,5
45 OVY 9181	292	187	3,7			45	99	5,5
50 OVY 9181	314	187	4,1			50	99	5,5
55 OVY 9181	335	215	4,5			55	99	5,5
60 OVY 9181	355	228	4,9			60	99	5,5
10 LU YAN SOĞUTUCULAR / Side Gravity Coolers For Shop Windows								
30 OVY 10201	238	153	2,8	20	20X1	30	110	5,5
35 OVY 10201	267	171	3,2			35	110	5,5
40 OVY 10201	295	189	3,7			40	110	5,5
45 OVY 10201	320	205	4,1			45	110	5,5
50 OVY 10201	344	220	4,6			50	110	5,5
55 OVY 10201	367	235	5,0			55	110	5,5
60 OVY 10201	388	249	5,5			60	110	5,5

BUZÇELİK
THERMIC EQUIPMENTS INDUSTRY

Firm :_____

Authorized: _____

Location: _____

Tel: _____

Fax: _____

E-mail: _____

Details of Heat Exchanger

Producer: _____ Field of Application :_____

Stainless Steel:

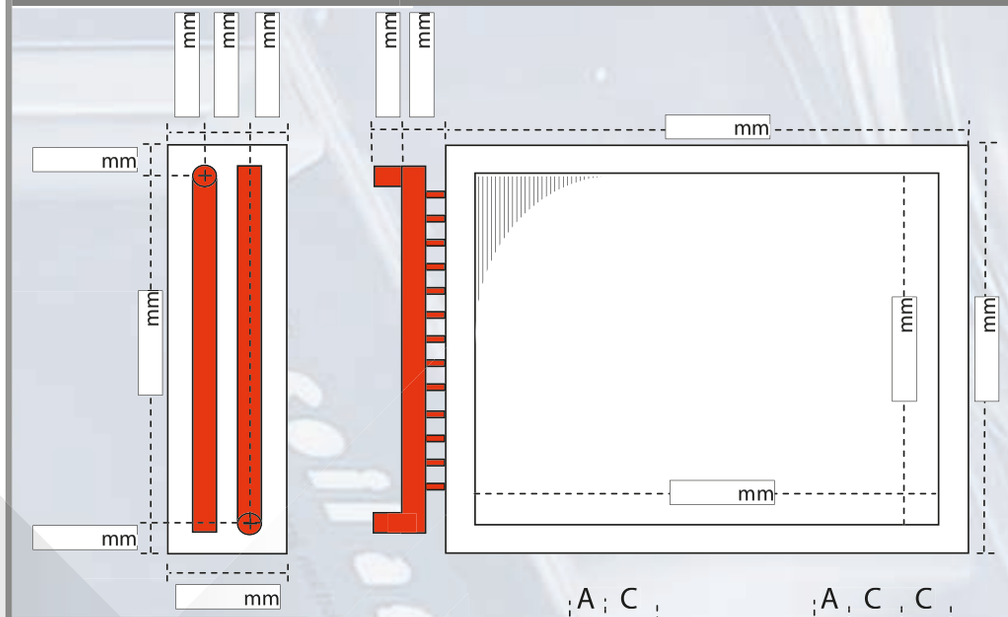
Material: ☐ Copper 304 ☐ 316 ☐ ☐ Aluminium ☐ Galvanized Other : _____

Tubes	☐ Ø 5/16"	☐ Ø 3/8"	☐ Ø 1/2"	☐ Ø 5/8"	_____
Fins	☐ ____mm	☐ ____mm	☐ ____mm	☐ ____mm	_____
Headers (Manifolds)	☐ Ø____	☐ Ø____	☐ Ø____	☐ Ø____	_____
Casing	☐ ____mm	☐ ____mm	☐ ____mm	☐ ____mm	_____

Hairpin Number : _____
Vertical Pipe Number : _____
Horizontal Pipe Number : _____
Fin Length (mm) : _____
Circuit Number : _____
* Free Tube Number : _____

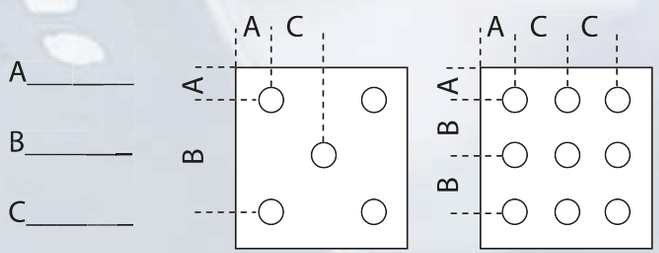
Options (Fan, Connection fittings) :

_____
_____
_____
_____

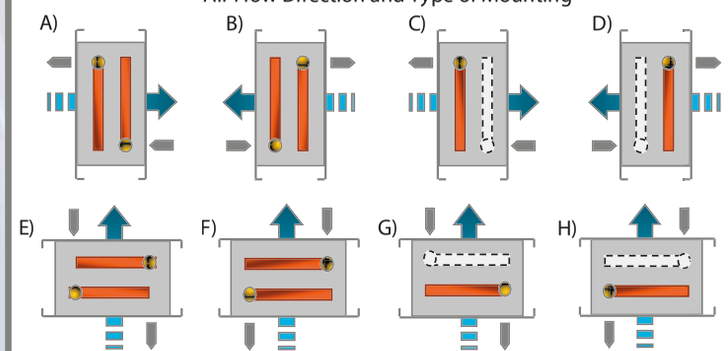


Air Inlet Temperature	°C	Capacity	kW
Relative Humidity	%	Requested Capacity	kW
Air Outlet Temperature	°C	Evaporation Temperature	°C
Air Flow Rate	m^3/h	Condensation Temperature	°C
Maximum Working Pressure	Pa	Maximum Permissible Pressure	kPa

☐ Hot Water Coil
☐ Cold Water Coil
☐ Evaporator
☐ Condenser
☐ DX Coil
☐ Steam Coil



Air Flow Direction and Type of Mounting



BUZÇELİK

Firma :_____

Yetkili: _____

Lokasyon: _____

Telefon: _____

Fax: _____

E-mail: _____

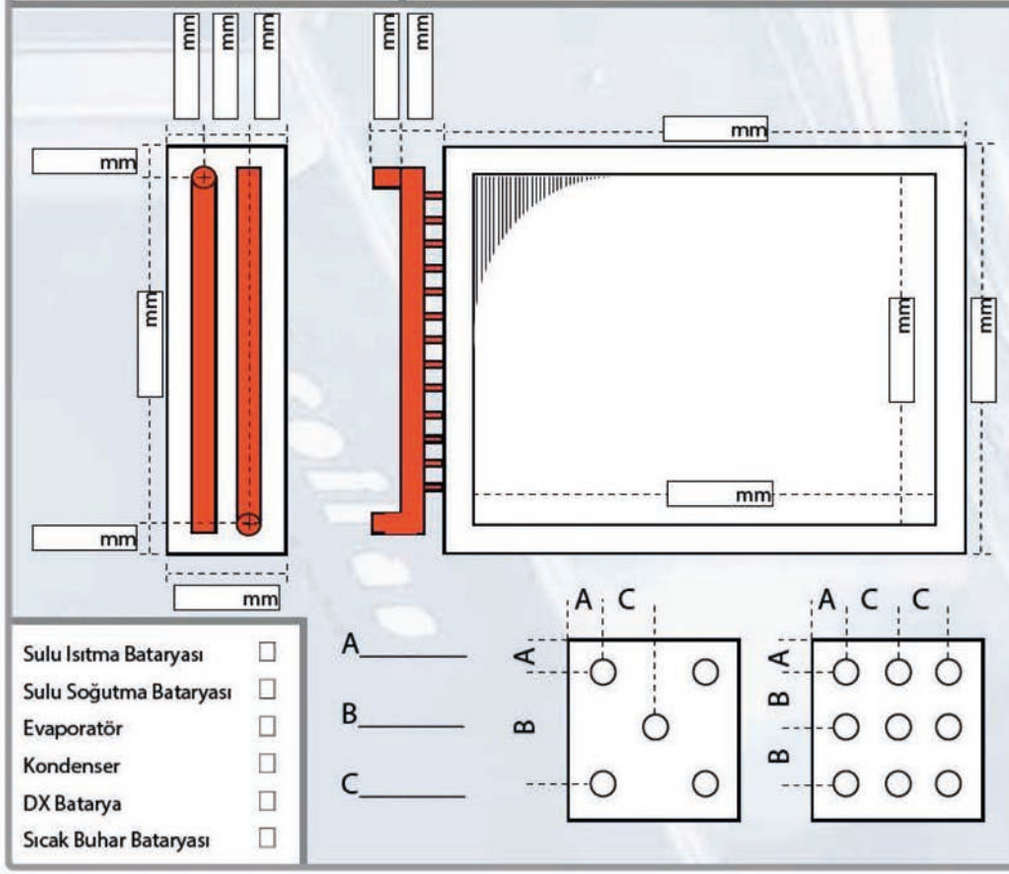
Eşanjör Detayları

Üretici : _____ Uygulama Yeri :_____

Materyal:	☐ Bakır	Paslanmaz: 304 ☐ 316 ☐	☐ Alüminyum	☐ Galvaniz	Diğer : _____
Borular	☐ Ø 5/16"	☐ Ø 3/8"	☐ Ø 1/2"	☐ Ø 5/8"	_____
Lameller	☐ ____mm	☐ ____mm	☐ ____mm	☐ ____mm	_____
Kollektörler	☐ Ø____	☐ Ø____	☐ Ø____	☐ Ø____	_____
Şase	☐ ____mm	☐ ____mm	☐ ____mm	☐ ____mm	_____

Bağlantı (Firkete) Sayısı: _____
Düşeydeki Boru Sayısı: _____
Sıra Boru Sayısı: _____
Lamel Uzunluğu (mm) : _____
Devre Sayısı (Kollektör) : _____
* Varsa Boş Boru Sayısı _____

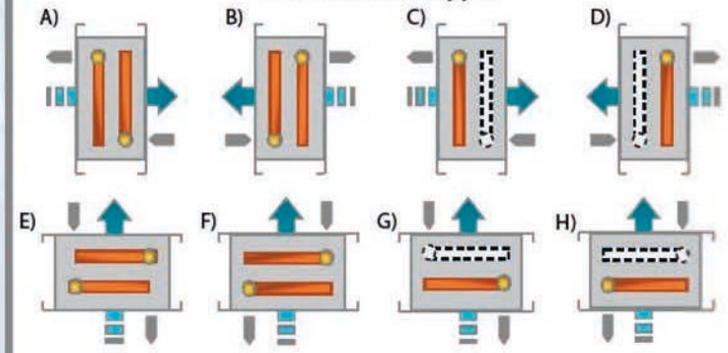
Opsiyonlar (Fan, Bağlantı elemanları..)



Hava Giriş Sıcaklığı	°C	Kapasite	kW
Bağıl Nem	%	Talep Edilen	kW
Hava Çıkış Sıcaklığı	°C	Evaporasyon Sıcaklığı	°C
Hava Debisi	m^3/h	Kondenzasyon Sıcaklığı	°C
Maksimum Çalışma Basıncı	Pa	İzin Verilen Maksimum Çalışma Basıncı	kPa

- Sulu Isıtma Bataryası ☐
- Sulu Soğutma Bataryası ☐
- Evaporatör ☐
- Kondenser ☐
- DX Batarya ☐
- Sıcak Buhar Bataryası ☐

Hava Yönü ve Montaj Şekli



New Generation Coolers

Yeni Nesil Soğutucular

BUZÇELİK
THERMIC EQUIPMENTS INDUSTRY

444 0 624

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