BUZÇELİK

THERMIC EQUIPMENTS INDUSTRY

ŞOK DONDURUCULAR & GLİKOLLU SOĞUTUCULAR

blast freezers & glycol coolers

FN SERIES
FP SERIES
GMS SERIES
GNS SERIES
GMC SERIES

www.buzcelik.com.tr

Hakkımızda

Buzçelik, Türkiye'de ısı değiştiriciler alanında lider üreticilerden biridir.

Farklı teknolojileri içeren bir ürün portföyünün yanı sıra kapsamlı bir destek sunan Buzcelik, gelişmiş makine parkuru, 30.000 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 sağlamıştır.

Buzçelik, sürdürülebilir bir soğutma endüstrisi için yenilikçi ürünleri ile stratejik hedef temelleri ışığında yenilikler sunmak adına kalitesini 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.

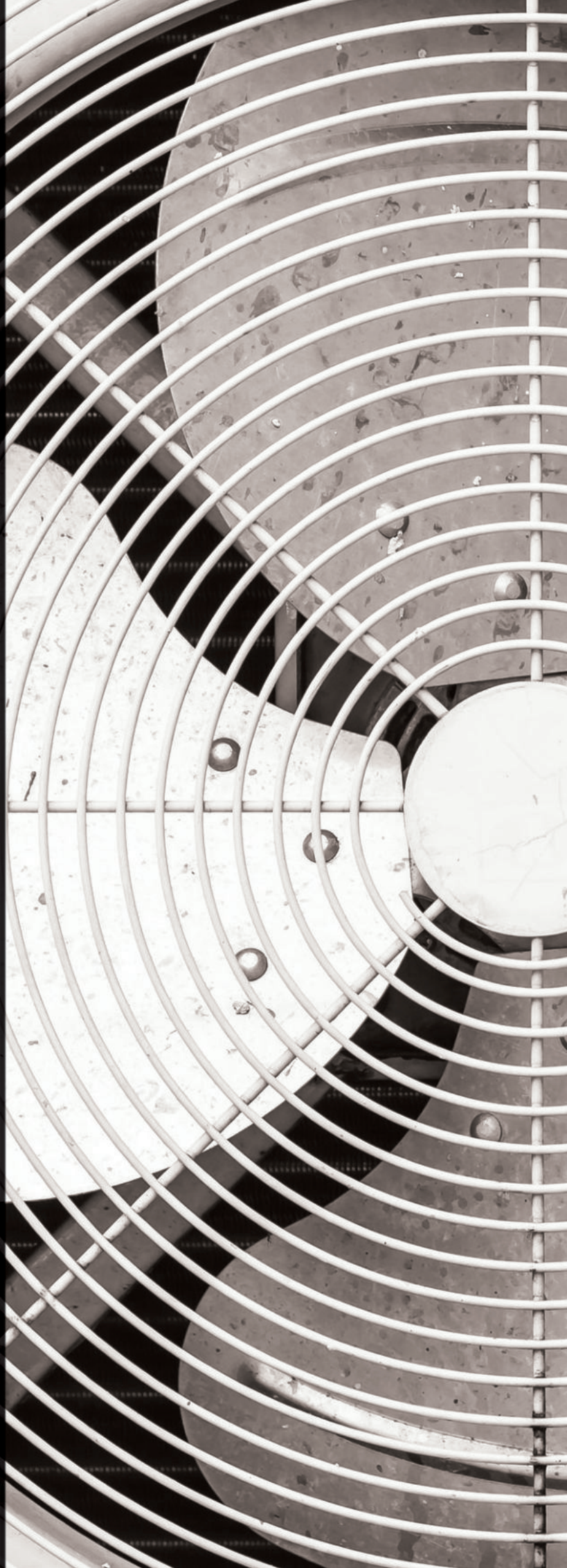
Kuruluşundan bu yana iş ortamıyla uzun vadeli ilişkiler kurmayı temel ilke olarak kabul ederek sektörün önde gelen şirketlerinden biri olmuştur ve kendini sektörde ilerletmek için hayati önlemler almıştır.

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.

Standartların belgelendirilmesi sürecinde Buzçelik, rekabetçi bir organizasyon olarak etkin işgücü, müşteriler, bayiler ve tedarikçilerle bu hedeflere ulaşmak için çalışır. 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.



About Us

Buzcelik is one of the leading manufacturers in the field of heat exchanger in Turkey.

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 30.000 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 sustainable 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:

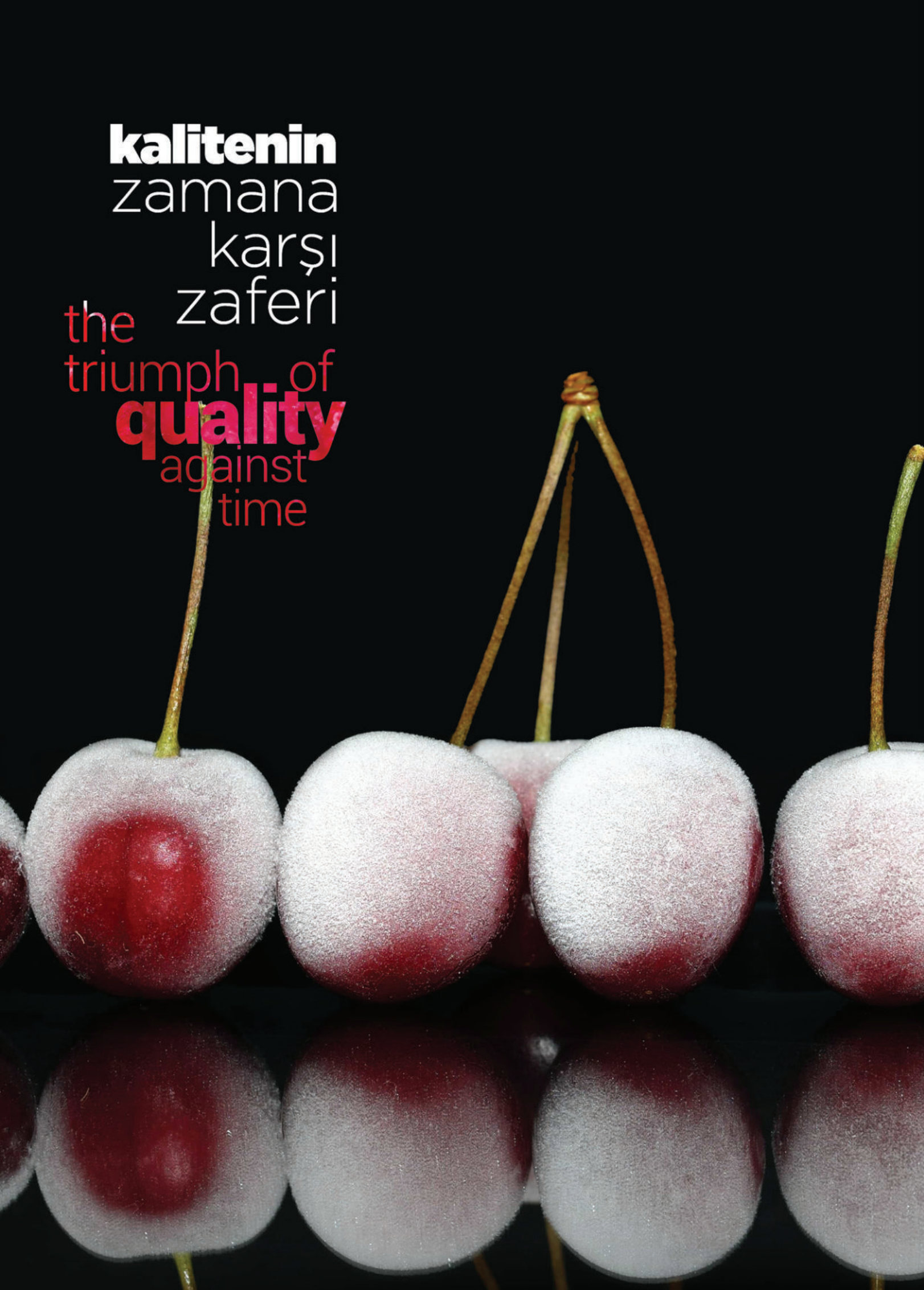
- Improving and expandable product range according to customer requirements by incessantly R&D activities,
- The price policy that offers "Reasonable Money" advantage along with "Professional Value",
- The manufacturing policy that responds to the customer needs rapidly and realize delivery in short 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.

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 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.

kalitenin zamana karşı zaferi

the triumph of quality against time



ŞOK DONDURUCULAR
blast freezers

GLİKOLLU SOĞUTUCULAR
glycol coolers

Şok Dondurucular
Blats Freezers

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, R449A, R22 soğutucu gazlarla çalışmaya uygun tasarım.
- Soğutucu akışkan distribütörü.

Coil

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

KASETLEME

- Galvaniz çelik üzerine elektrostatik RAL 9016 boyalıdır.
- İsteğe bağlı paslanmaz 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 casing as optional.*
- *Side panels are removable.*
- *Hinged/Folding drain tray is standard for all 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.
- 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 best 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.*
- *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 B2 type defrost system and spare defrosts. Defrost heaters are applied on both heat exchanger coil and drain tray.*
- *Drain line heaters, fan housing heaters and hot gas defrost system are* optional.
- *This facility enables homogenous heat distribution for fast 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.
  - *B2 (Optional) : Electric defrost (coil + drain pan)*
  - *HGD (Optional) : Hot gas (coil and drain pan)*

KAPASİTE

- Nominal kapasiteler E.T./R.T.=-40°C/-35°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/-35°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, Operition 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

- *Hot 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

ADLANDIRMA
CLASIFICATION

63 F N N 21 2 T

Fan Çapı Fan Diameter	F	Geometri Geometry	Hatve Aralığı Fin Space	Fan Dizisi Fan Array	Ürün Numarası Product Number	Tip Type
Ø...cm	Şok Dondurucu Blast Freezer	P : 55 mm x 48 mm N : 40 mm x 35 mm	O : 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 : Multi-Layer Type T : Tunnel Type

KAPASİTE STANDARTLARI
CAPACITY STANDARD

Nominal kapasite değerleri Eurovent standart şartları EN 328'de tanımlanan ΔT_1 esasına göre verilmiştir.

ΔT_1 = (Oda Sıcaklığı) - (Evaporasyon Sıcaklığı)

Tablo-1 : Standart Şartlar (Eurovent EN 328)

Freon için Standart Şartlar	Oda Sıcaklığı °C	Evaporasyon Sıcaklığı °C
SC5	-34	40

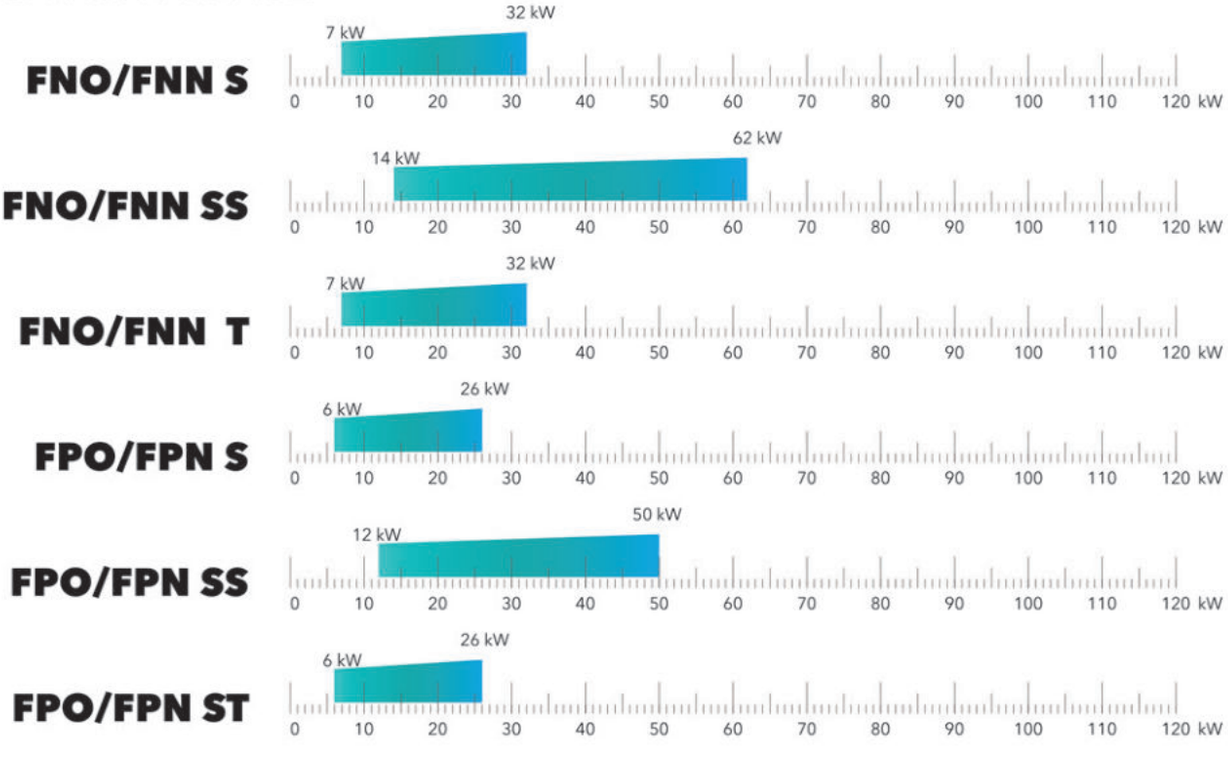
Nominal capacities in the catalog are given according to ΔT1 as defined in EN 328 standard conditions of Eurovent.

ΔT1 = (Room Temp.) - (Evaporation Temp.)

Table-1 Standard Conditions (Eurovent EN 328)

Standard Conditions for Refrigerants	Room Temperature °C	Evaporating Temp. °C
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 STANDARD	LAMEL ARALIĞI Fin Spacing	ODA SICAKLIĞI (T1) Room Temp. (T1)
SC5	10mm ~ 12mm	-34°C

(f_1) KAPASİTE DÜZELTME FAKTÖRÜ

(f_1) *CAPACİTY CORRECTİON FACTORS*

Oda Sıcaklığı	ΔT					
Room Temp.	(Oda Sıcaklığı-Evaporasyon Sıcaklığı)					
(°C)	(Room Temp.-Evaporation Temp.) °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
f_1 = Düzeltme Faktörü Correction Factor

K_2 SOĞUTUCU FAKTÖR / K_2 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 (İstenen 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
Secilen Soğutucu = 63FNN 211 S / 63FNN 211 T

QR = 18Kw (RequiredCapacity)
T1 = -40°C (Room Temp.)
T2 = -47°C (Evaporation Temp.)
T = 7°C (Temperature Difference)
f1 = 1,37 (Correction Factor)

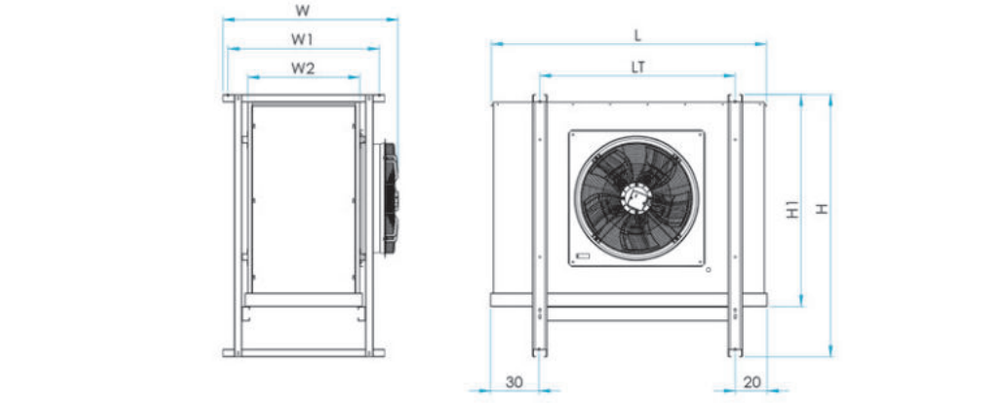
QNK= (QR/f1) = (18/1,37) = 13,5 kW
Selected Blast Freezer = 63FNN 211 S / 63FNN 211 T

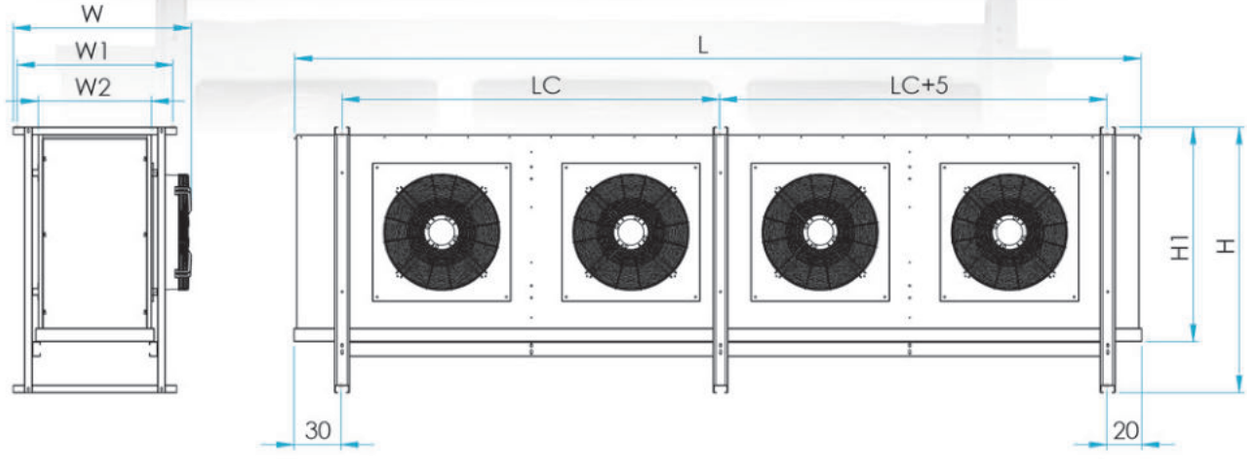
TEKNİK BİLGİLER
Technical Information

Bakır Boru / Copper Tube : 5/8"
Kalıp / Geometry : 40 mm x 35 mm
Hatve / Fin Spacing : 10 mm - 12 mm

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 Tube	5/8"	Kalıp / Geometry	40 mm x 35 mm	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		
			RT / ET RT: Room Temepreature ET: Evaporation Temperature -35 °C / -40 °C	Adet Qty	Çap Diameter	Hava Debisi Air Flow	B1 Batarya Coil	B2 Batarya Coil	B2 Tava D.Tray
	(m²)	(dm³)	(kW)	(n)	(mm)	(m³/h)	(nXW)	(nXW)	(nXW)
63FNO 111 S	55,20	17,3	7,3	1	630	13.750	-	22X600	4X600
63FNO 112 S	70,26	22,0	8,7		630	15.250	-	28X600	4X600
63FNN 111 S	46,81	17,3	6,5		630	14.150	-	22X600	4X600
63FNN 112 S	59,57	22,0	7,8		630	15.400	-	28X600	4X600
63FNO 211 S	110,40	34,6	14,6	2	630	27.500	-	22X1150	4X1150
63FNO 212 S	140,52	44,0	17,4		630	30.500	-	28X1150	4X1150
63FNN 211 S	93,62	34,6	13,0		630	28.300	-	22X1150	4X1150
63FNN 212 S	119,14	44,0	15,6		630	30.800	-	28X1150	4X1150
63FNO 311 S	165,60	51,9	21,9	3	630	41.250	-	22X1700	4X1700
63FNO 312 S	210,78	66,0	26,1		630	45.750	-	28X1700	4X1700
63FNN 311 S	140,43	51,9	19,5		630	42.450	-	22X1700	4X1700
63FNN 312 S	178,71	66,0	23,4		630	46.200	-	28X1700	4X1700
63FNO 411 S	220,80	69,2	29,2	4	630	55.000	-	22X2250	4X2250
63FNO 412 S	281,04	88,0	34,8		630	61.000	-	28X2250	4X2250
63FNN 411 S	187,24	69,2	26,0		630	56.600	-	22X2250	4X2250
63FNN 412 S	238,28	88,0	31,2		630	61.600	-	28X2250	4X2250

Model Model	Boyutlar Dimensions										
	L	H	W	L_T	L_C	L_U	H_1	H_2	W_1	W_2	W_3
	(cm)	(cm)	(cm)	(cm)	(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	-

TEKNİK BİLGİLER
Technical Information

Bakır Boru / Copper Tube	: 5/8"
Kalıp / Geometry	: 40 mm x 35 mm
Hatve / Fin Spacing	: 10 mm - 12 mm

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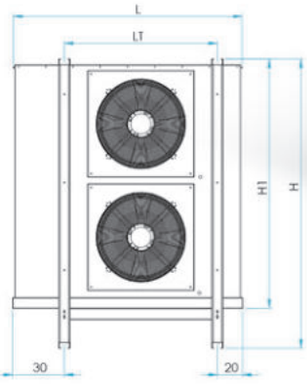
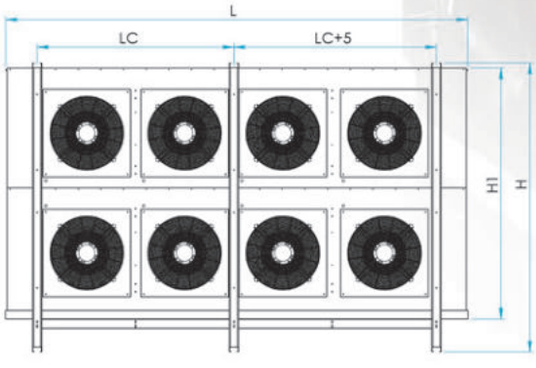




Bakır Boru / Copper Tube	5/8"	Kalıp / Geometry	40 mm x 35 mm	Hatve / Fin Spacing	10 mm - 12 mm

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 -35 °C / -40 °C	Adet Qty	Çap Diameter	Hava Debisi Air Flow	Batarya Coil	Batarya Coil	Tava D.Tray
	(m²)	(dm³)	(kW)	(n)	(mm)	(m3/h)	(nXW)	(nXW)	(nXW)
63FNO 121 SS	110,40	34,6	14,6	2	630	27.500	-	44X600	4X600
63FNO 122 SS	140,52	44,0	17,4		630	30.500	-	56X600	4X600
63FNN 121 SS	93,62	34,6	13,0		630	28.300	-	44X600	4X600
63FNN 122 SS	119,14	44,0	15,6		630	30.800	-	56X600	4X600
63FNO 221 SS	220,80	69,2	29,2	4	630	55.000	-	44X1150	4X1150
63FNO 222 SS	281,04	88,0	34,8		630	61.000	-	56X1150	4X1150
63FNN 221 SS	187,24	69,2	26,0		630	56.600	-	44X1150	4X1150
63FNN 222 SS	238,28	88,0	31,2		630	61.600	-	56X1150	4X1150
63FNO 321 SS	331,20	103,8	43,8	6	630	82.500	-	44X1700	4X1700
63FNO 322 SS	421,56	132,0	52,2		630	91.500	-	56X1700	4X1700
63FNN 321 SS	280,86	103,8	39,0		630	84.900	-	44X1700	4X1700
63FNN 322 SS	357,42	132,0	46,8		630	92.400	-	56X1700	4X1700
63FNO 421 SS	441,60	138,4	58,4	8	630	110.000	-	44X2250	4X2250
63FNO 422 SS	562,08	176,0	69,6		630	122.000	-	56X2250	4X2250
63FNN 421 SS	374,48	138,4	52,0		630	113.200	-	44X2250	4X2250
63FNN 422 SS	476,56	176,0	62,4		630	123.200	-	56X2250	4X2250

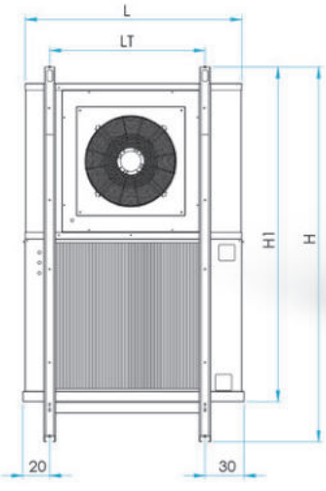
Model Model	Boyutlar Dimensions										
	L	H	W	L_T	L_C	L_U	H_1	H_2	W_1	W_2	W_3
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
63FNO 121 SS	162	225	105	115	-	-	195	-	91	66	-
63FNO 122 SS	162	274	105	115	-	-	240	-	91	66	-
63FNN 121 SS	162	225	105	115	-	-	195	-	91	66	-
63FNN 122 SS	162	274	105	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	-

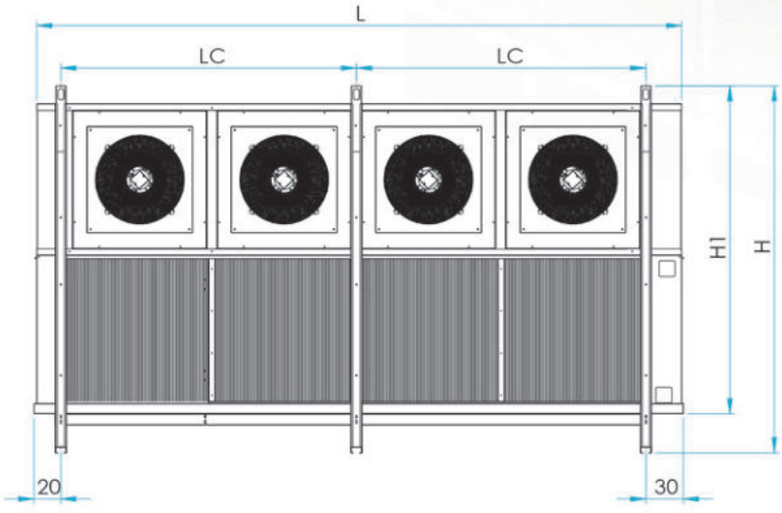
TEKNİK BİLGİLER
Technical Information

Bakır Boru / Copper Tube	: 5/8"
Kalıp / Geometry	: 40 mm x 35 mm
Hatve / Fin Spacing	: 10 mm - 12 mm

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 Tube	5/8"	Kalıp / Geometry	40 mm x 35 mm	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 -35 °C / -40 °C	Adet Qty	Çap Diameter	Hava Debisi Air Flow	Batarya Coil	Batarya Coil	Tava D.Tray
	(m²)	(dm³)	(kW)	(n)	(mm)	(m3/h)	(nXW)	(nXW)	(nXW)
63FNO 111 T	55,20	17,3	7,3	1	630	13.750	-	22X600	4X600
63FNO 112 T	70,26	22,0	8,7		630	15.250	-	28X600	4X600
63FNN 112 T	59,57	22,0	7,8		630	15.400	-	28X600	4X600
63FNN 111 T	46,81	17,3	6,5		630	14.150	-	22X600	4X600
63FNO 211 T	110,40	34,6	14,6	2	630	27.500	-	22X1150	4X1150
63FNO 212 T	140,52	44,0	17,4		630	30.500	-	28X1150	4X1150
63FNN 211 T	93,62	34,6	13,0		630	28.300	-	22X1150	4X1150
63FNN 212 T	119,14	44,0	15,6		630	30.800	-	28X1150	4X1150
63FNO 311 T	165,60	51,9	21,9	3	630	41.250	-	22X1700	4X1700
63FNO 312 T	210,78	66,0	26,1		630	45.750	-	28X1700	4X1700
63FNN 311 T	140,43	51,9	19,5		630	42.450	-	22X1700	4X1700
63FNN 312 T	178,71	66,0	23,4		630	46.200	-	28X1700	4X1700
63FNO 411 T	220,80	69,2	29,2	4	630	55.000	-	22X2250	4X2250
63FNO 412 T	281,04	88,0	34,8		630	61.000	-	28X2250	4X2250
63FNN 411 T	187,24	69,2	26,0		630	56.600	-	22X2250	4X2250
63FNN 412 T	238,28	88,0	31,2		630	61.600	-	28X2250	4X2250

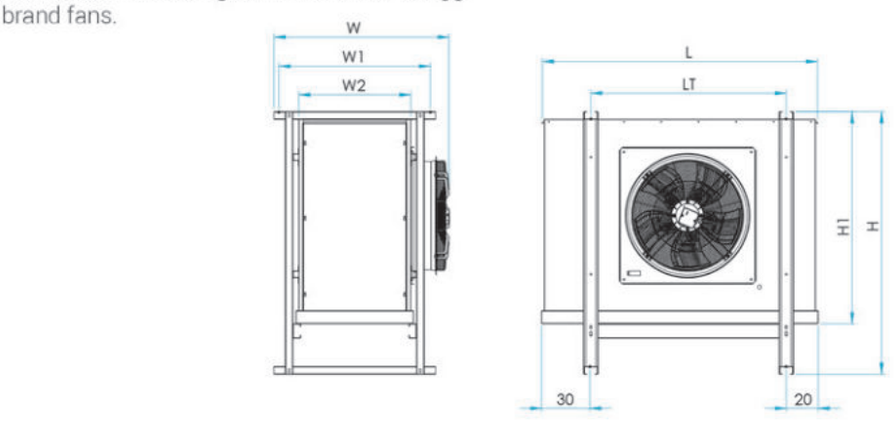
Model Model	Boyutlar Dimensions										
	L	H	W	L_T	L_C	L_U	H_1	H_2	W_1	W_2	W_3
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
63FNO 111 T	162	260	105	115	-	-	230	-	75	66	-
63FNO 112 T	162	282	105	115	-	-	252	-	75	66	-
63FNN 112 T	162	260	105	115	-	-	230	-	75	66	-
63FNN 111 T	162	282	105	115	-	-	252	-	75	66	-
63FNO 211 T	272	260	105	-	225	-	230	-	75	66	-
63FNO 212 T	272	282	105	-	225	-	252	-	75	66	-
63FNN 211 T	272	260	105	-	225	-	230	-	75	66	-
63FNN 212 T	272	282	105	-	225	-	252	-	75	66	-
63FNO 311 T	382	260	105	-	-	335	230	-	75	66	-
63FNO 312 T	382	282	105	-	-	335	252	-	75	66	-
63FNN 311 T	382	260	105	-	-	335	230	-	75	66	-
63FNN 312 T	382	282	105	-	-	335	252	-	75	66	-
63FNO 411 T	492	260	105	-	220	-	230	-	75	66	-
63FNO 412 T	492	282	105	-	220	-	252	-	75	66	-
63FNN 411 T	492	260	105	-	220	-	230	-	75	66	-
63FNN 412 T	492	282	105	-	220	-	252	-	75	66	-

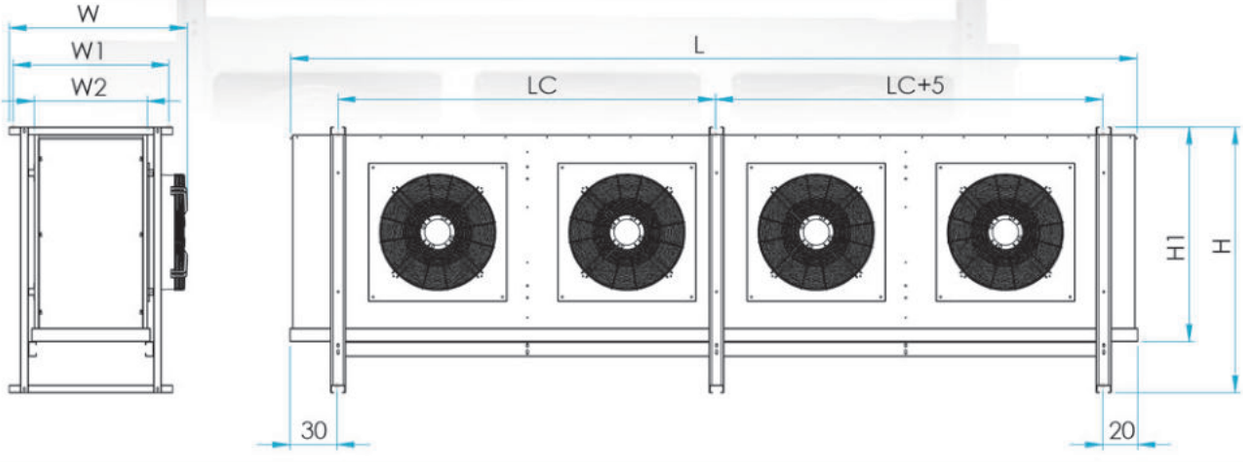
TEKNİK BİLGİLER
Technical Information

Bakır Boru / Copper Tube : 5/8"
Kalıp / Geometry : 55 mm x 48 mm
Hatve / Fin Spacing : 10 mm - 12 mm

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 Tube	5/8"	Kalıp / Geometry	55 mm x 48 mm	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		
			RT / ET RT: Room Temepreature ET: Evaporation Temperature -35 °C / -40 °C	Adet Qty	Çap Diameter	Hava Debisi Air Flow	B1 Batarya Coil	B2 Batarya Coil	B2 Tava D.Tray
	(m²)	(dm³)	(kW)	(n)	(mm)	(m3/h)	(nXW)	(nXW)	(nXW)
63FPO 111 S	56,48	12,6	6,0	1	630	15.650	-	16x600	4x600
63FPO 112 S	70,60	15,7	7,1		630	16.600	-	20x600	4x600
63FPN 111 S	47,65	12,6	5,3		630	16.000	-	16x600	4x600
63FPN 112 S	59,57	15,7	6,3		630	17.000	-	20x600	4x600
63FPO 211 S	112,96	25,2	12,0	2	630	31.300	-	16x1150	4x1150
63FPO 212 S	141,20	31,4	14,2		630	33.200	-	20x1150	4x1150
63FPN 211 S	95,30	25,2	10,6		630	32.000	-	16x1150	4x1150
63FPN 212 S	119,13	31,4	12,6		630	34.000	-	20x1150	4x1150
63FPO 311 S	169,44	37,8	18,0	3	630	46.950	-	16x1700	4x1700
63FPO 312 S	211,80	47,1	21,3		630	49.800	-	20x1700	4x1700
63FPN 311 S	142,95	37,8	15,9		630	48.000	-	16x1700	4x1700
63FPN 312 S	178,70	47,1	18,9		630	51.000	-	20x1700	4x1700
63FPO 411 S	225,92	50,4	24,0	4	630	62.600	-	16x2250	4x2250
63FPO 412 S	282,40	62,8	28,4		630	66.400	-	20x2250	4x2250
63FPN 411 S	190,60	50,4	21,2		630	64.000	-	16x2250	4x2250
63FPN 412 S	238,26	62,8	25,2		630	68.000	-	20x2250	4x2250

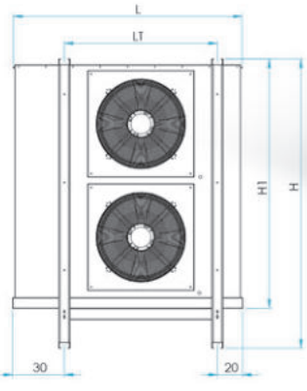
Model Model	Boyutlar Dimensions										
	L	H	W	L_T	L_C	L_U	H_1	H_2	W_1	W_2	W_3
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
63FPO 111 S	162	130	105	115	-	-	100	-	91	66	-
63FPO 112 S	162	150	105	115	-	-	122	-	91	66	-
63FPN 111 S	162	130	105	115	-	-	100	-	91	66	-
63FPN 112 S	162	150	105	115	-	-	122	-	91	66	-
63FPO 211 S	272	130	105	-	225	-	100	-	91	66	-
63FPO 212 S	272	150	105	-	225	-	122	-	91	66	-
63FPN 211 S	272	130	105	-	225	-	100	-	91	66	-
63FPN 212 S	272	150	105	-	225	-	122	-	91	66	-
63FPO 311 S	382	130	105	-	-	335	100	-	91	66	-
63FPO 312 S	382	150	105	-	-	335	122	-	91	66	-
63FPN 311 S	382	130	105	-	-	335	100	-	91	66	-
63FPN 312 S	382	150	105	-	-	335	122	-	91	66	-
63FPO 411 S	492	130	105	-	220	-	100	-	91	66	-
63FPO 412 S	492	150	105	-	220	-	122	-	91	66	-
63FPN 411 S	492	130	105	-	220	-	100	-	91	66	-
63FPN 412 S	492	150	105	-	220	-	122	-	91	66	-

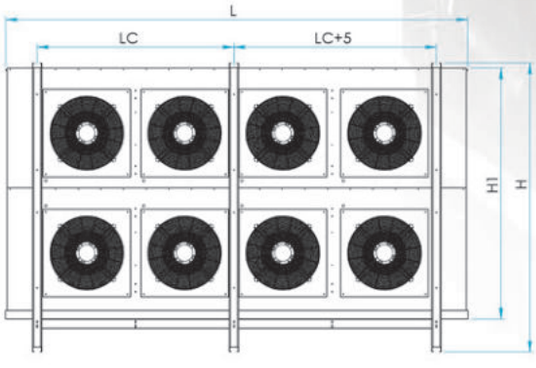
TEKNİK BİLGİLER
Technical Information

Bakır Boru / Copper Tube	: 5/8"
Kalıp / Geometry	: 55 mm x 48 mm
Hatve / Fin Spacing	: 10 mm - 12 mm

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 Tube	5/8"	Kalıp / Geometry	55 mm x 48 mm	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 -35 °C / -40 °C	Adet Qty	Çap Diameter	Hava Debisi Air Flow	Batarya Coil	Batarya Coil	Tava D.Tray
	(m²)	(dm³)	(kW)	(n)	(mm)	(m3/h)	(nXW)	(nXW)	(nXW)
63FPO 121 SS	112,96	25,2	12,0	2	630	31.300	-	32x600	4x600
63FPO 122 SS	141,20	31,4	14,2		630	33.200	-	40x600	4x600
63FPN 121 SS	95,30	25,2	10,6		630	32.000	-	32x600	4x600
63FPN 122 SS	119,13	31,4	12,6		630	34.000	-	40x600	4x600
63FPO 221 SS	225,92	50,4	24,0	4	630	62.600	-	32x1150	4x1150
63FPO 222 SS	282,40	62,8	28,4		630	66.400	-	40x1150	4x1150
63FPN 221 SS	190,60	50,4	21,2		630	64.000	-	32x1150	4x1150
63FPN 222 SS	238,26	62,8	25,2		630	68.000	-	40x1150	4x1150
63FPO 321 SS	338,89	75,6	36,0	6	630	93.900	-	32x1700	4x1700
63FPO 322 SS	423,60	94,2	42,6		630	99.600	-	40x1700	4x1700
63FPN 321 SS	285,90	75,6	31,8		630	96.000	-	32x1700	4x1700
63FPN 322 SS	357,40	94,2	37,8		630	102.000	-	40x1700	4x1700
63FPO 421 SS	451,85	100,8	48,0	8	630	125.200	-	32x2250	4x2250
63FPO 422 SS	564,80	125,6	56,8		630	132.800	-	40x2250	4x2250
63FPN 421 SS	381,20	100,8	42,4		630	128.000	-	32x2250	4x2250
63FPN 422 SS	476,53	125,6	50,4		630	136.000	-	40x2250	4x2250

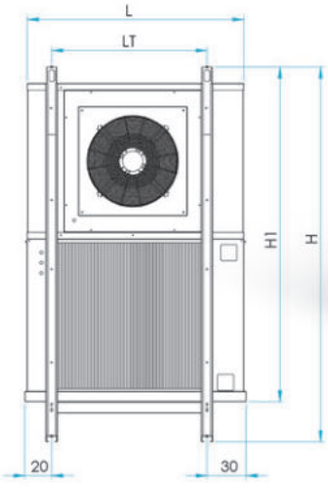
Model Model	Boyutlar Dimensions										
	L	H	W	L_T	L_C	L_U	H_1	H_2	W_1	W_2	W_3
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
63FPO 121 SS	162	225	105	115	-	-	195	-	91	66	-
63FPO 122 SS	162	274	105	115	-	-	240	-	91	66	-
63FPN 121 SS	162	225	105	115	-	-	195	-	91	66	-
63FPN 122 SS	162	274	105	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	-

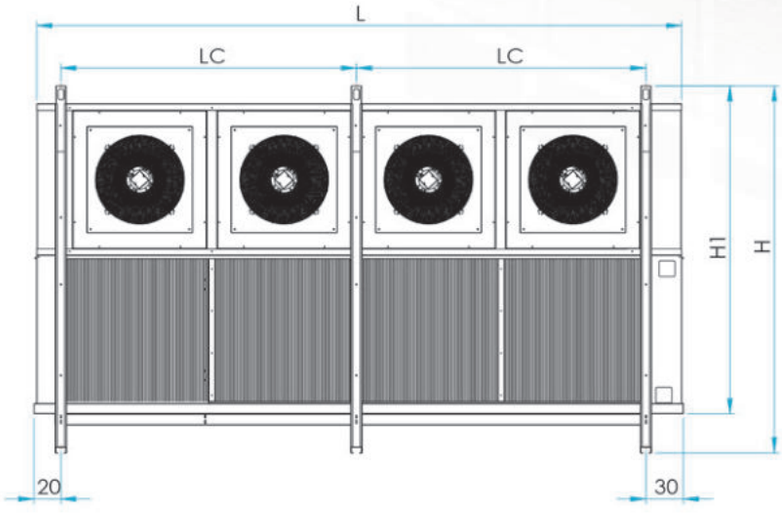
TEKNİK BİLGİLER
Technical Information

Bakır Boru / Copper Tube	: 5/8"
Kalıp / Geometry	: 55 mm x 48 mm
Hatve / Fin Spacing	: 10 mm - 12 mm

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 Tube	5/8"	Kalıp / Geometry	55 mm x 48 mm	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		
			RT / ET RT: Room Temepreature ET: Evaporation Temperature -35 °C / -40 °C	Adet Qty	Çap Diameter	Hava Debisi Air Flow	B1 Batarya Coil	B2 Batarya Coil	B2 Tava D.Tray
	(m²)	(dm³)	(kW)	(n)	(mm)	(m3/h)	(nXW)	(nXW)	(nXW)
63FPO 111 T	56,48	12,6	6,0	1	630	15.650	-	16x600	4x600
63FPO 112 T	70,60	15,7	7,1		630	16.600	-	20x600	4x600
63FPN 111 T	47,65	12,6	5,3		630	16.000	-	16x600	4x600
63FPN 112 T	59,57	15,7	6,3		630	17.000	-	20x600	4x600
63FPO 211 T	112,96	25,2	12,0	2	630	31.300	-	16x1150	4x1150
63FPO 212 T	141,20	31,4	14,2		630	33.200	-	20x1150	4x1150
63FPN 211 T	95,30	25,2	10,6		630	32.000	-	16x1150	4x1150
63FPN 212 T	119,13	31,4	12,6		630	34.000	-	20x1150	4x1150
63FPO 311 T	169,44	37,8	18,0	3	630	46.950	-	16x1700	4x1700
63FPO 312 T	211,80	47,1	21,3		630	49.800	-	20x1700	4x1700
63FPN 311 T	142,95	37,8	15,9		630	48.000	-	16x1700	4x1700
63FPN 312 T	178,70	47,1	18,9		630	51.000	-	20x1700	4x1700
63FPO 411 T	225,92	50,4	24,0	4	630	62.600	-	16x2250	4x2250
63FPO 412 T	282,40	62,8	28,4		630	66.400	-	20x2250	4x2250
63FPN 411 T	190,60	50,4	21,2		630	64.000	-	16x2250	4x2250
63FPN 412 T	238,26	62,8	25,2		630	68.000	-	20x2250	4x2250

Model Model	Boyutlar Dimensions										
	L	H	W	L_T	L_C	L_U	H_1	H_2	W_1	W_2	W_3
	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
63FPO 111 T	162	260	105	115	-	-	230	-	75	66	-
63FPO 112 T	162	282	105	115	-	-	252	-	75	66	-
63FPN 111 T	162	260	105	115	-	-	230	-	75	66	-
63FPN 112 T	162	282	105	115	-	-	252	-	75	66	-
63FPO 211 T	272	260	105	-	225	-	230	-	75	66	-
63FPO 212 T	272	282	105	-	225	-	252	-	75	66	-
63FPN 211 T	272	260	105	-	225	-	230	-	75	66	-
63FPN 212 T	272	282	105	-	225	-	252	-	75	66	-
63FPO 311 T	382	260	105	-	-	335	230	-	75	66	-
63FPO 312 T	382	282	105	-	-	335	252	-	75	66	-
63FPN 311 T	382	260	105	-	-	335	230	-	75	66	-
63FPN 312 T	382	282	105	-	-	335	252	-	75	66	-
63FPO 411 T	492	260	105	-	220	-	230	-	75	66	-
63FPO 412 T	492	282	105	-	220	-	252	-	75	66	-
63FPN 411 T	492	260	105	-	220	-	230	-	75	66	-
63FPN 412 T	492	282	105	-	220	-	252	-	75	66	-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GLİKOLLU SOĞUTUCULAR
glycol coolers

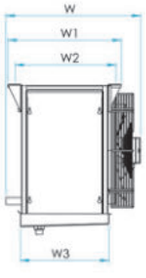
GLİKOLLU SOĞUTUCU TEKNİK BİLGİLER

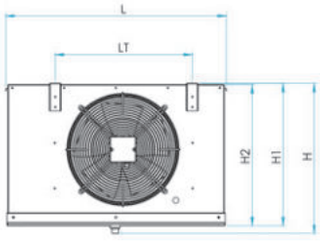
Glycol Cooler's Technical Information

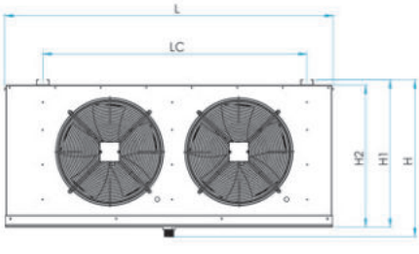
Bakır Boru / Copper Tube	: 1/2" - 5/8"
Kalıp / Geometry	: 40 mm x 35 mm
Hatve / Fin Spacing	: 4 mm - 6 mm - 8 mm

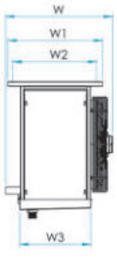
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

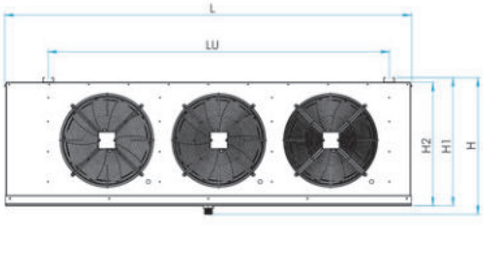
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.











BUZÇELİK
TERMİK CİHAZLAR SANAYİ

Bakır Boru / Copper Tube	1/2"	Kalıp / Geometry	40 mm x 35 mm	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)	Adet Qty	Çap Diameter	Hava Debisi Air Flow
	m^2	dm^3	W	W	W	W	(n)	mm	m^3/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	16.620	11.838	9.578	8.490		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	24.930	17.757	14.367	12.735		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	27.731	26.031	21.461	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	32.952	31.284	26.759	15.197		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	46.478	42.968	28.584	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	L_T	L_C	L_U	H_1	H_2	W_1	W_2	W_3
	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm
GMSD 40112	86	61	52	53	--	--	55	55	44	41	34
GMSD 40114	86	61	62	53	--	--	55	55	51	48	41
GMSD 40212	136	61	52	--	103	--	55	55	44	41	34
GMSD 40214	136	61	62	--	103	--	55	55	51	48	41
GMSD 40312	186	61	56	--	--	153	58	55	49	45	34
GMSD 40314	186	61	62	--	--	153	58	55	55	51	41
GMSD 45212	166	80	52	--	133	--	75	72	49	41	34
GMSD 45214	166	80	62	--	133	--	75	72	55	48	41
GMSD 50212	166	80	52	--	133	--	75	72	49	41	34
GMSD 50214	166	80	62	--	133	--	75	72	55	48	41
GMSD 45312	237	80	56	--	--	198	75	72	49	45	34
GMSD 45314	237	80	62	--	--	198	75	72	55	51	41
GMSD 50312	237	80	56	--	--	198	75	72	49	45	34
GMSD 50314	237	80	62	--	--	198	75	72	55	51	41
GMSD 45412	302	80	56	--	130	--	75	72	49	45	34
GMSD 45414	302	80	62	--	130	--	75	72	55	51	41
GMSD 50412	302	80	56	--	130	--	75	72	49	45	34
GMSD 50414	302	80	62	--	130	--	75	72	55	51	41

GMSA Serisi
GMSA Series

Bakır Boru / Copper Tube	1/2"	Kalıp / Geometry	40 mm x 35 mm	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)	Adet Qty	Çap Diameter	Hava Debisi Air Flow
	m^2	dm^3	W	W	W	W	(n)	mm	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	7.820	6.504	7.326	5.804	2	400	6.032
GMSA 40214	33,44	8,2	10.602	9.250	8.782	7.756		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	15.903	13.875	13.173	11.634		400	7.794
GMSA 45212	38,63	9,4	14.127	13.112	12.183	7.984	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	21.191	19.668	18.275	11.976	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	L_T	L_C	L_U	H_1	H_2	W_1	W_2	W_3
	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm
GMSA 40112	86	61	52	53	--	--	55	55	44	41	34
GMSA 40114	86	61	62	53	--	--	55	55	51	48	41
GMSA 40212	136	61	52	--	103	--	55	55	44	41	34
GMSA 40214	136	61	62	--	103	--	55	55	51	48	41
GMSA 40312	186	61	56	--	--	153	58	55	49	45	34
GMSA 40314	186	61	62	--	--	153	58	55	55	51	41
GMSA 45212	166	80	52	--	133	--	75	72	49	41	34
GMSA 45214	166	80	62	--	133	--	75	72	55	48	41
GMSA 50212	166	80	52	--	133	--	75	72	49	41	34
GMSA 50214	166	80	62	--	133	--	75	72	55	48	41
GMSA 45312	237	80	56	--	--	198	75	72	49	45	34
GMSA 45314	237	80	62	--	--	198	75	72	55	51	41
GMSA 50312	237	80	56	--	--	198	75	72	49	45	34
GMSA 50314	237	80	62	--	--	198	75	72	55	51	41
GMSA 45412	302	80	56	--	130	--	75	72	49	45	34
GMSA 45414	302	80	62	--	130	--	75	72	55	51	41
GMSA 50412	302	80	56	--	130	--	75	72	49	45	34
GMSA 50414	302	80	62	--	130	--	75	72	55	51	41

BUZÇELİK
TERMİK CİHAZLAR SANAYİ

Bakır Boru / Copper Tube	1/2"	Kalıp / Geometry	40 mm x 35 mm	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)	Adet Qty	Çap Diameter	Hava Debisi Air Flow
	m^2	dm^3	W	W	W	W		mm	m^3/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	6.320	5.636	5.778	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	2	450	9.590
GMSS 45214	44,71	14,1	15.702	14.857	14.196	10.673		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	44,70	14,1	17.447	15.890	15.188	11.340	3	450	14.385
GMSS 45314	67,07	21,2	23.553	22.286	21.294	16.010		450	13.410
GMSS 50312	44,70	14,1	20.781	19.356	18.624	16.622		500	20.850
GMSS 50314	67,07	21,2	27.941	25.661	25.740	22.803		500	18.570
GMSS 45412	59,60	18,8	23.262	21.186	20.250	15.120	4	450	19.180
GMSS 45414	89,42	28,2	31.404	29.714	28.392	21.346		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	37.254	34.214	34.320	30.404		500	24.760

Model Model	Boyutlar Dimensions										
	L	H	W	L_T	L_C	L_U	H_1	H_2	W_1	W_2	W_3
	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm
GMSS 40112	86	61	52	53	--	--	55	55	44	41	34
GMSS 40114	86	61	62	53	--	--	55	55	51	48	41
GMSS 40212	136	61	52	--	103	--	55	55	44	41	34
GMSS 40214	136	61	62	--	103	--	55	55	51	48	41
GMSS 40312	186	61	56	--	--	153	58	55	49	45	34
GMSS 40314	186	61	62	--	--	153	58	55	55	51	41
GMSS 45212	166	80	52	--	133	--	75	72	49	41	34
GMSS 45214	166	80	62	--	133	--	75	72	55	48	41
GMSS 50212	166	80	52	--	133	--	75	72	49	41	34
GMSS 50214	166	80	62	--	133	--	75	72	55	48	41
GMSS 45312	237	80	56	--	--	198	75	72	49	45	34
GMSS 45314	237	80	62	--	--	198	75	72	55	51	41
GMSS 50312	237	80	56	--	--	198	75	72	49	45	34
GMSS 50314	237	80	62	--	--	198	75	72	55	51	41
GMSS 45412	302	80	56	--	130	--	75	72	49	45	34
GMSS 45414	302	80	62	--	130	--	75	72	55	51	41
GMSS 50412	302	80	56	--	130	--	75	72	49	45	34
GMSS 50414	302	80	62	--	130	--	75	72	55	51	41

GNSD Serisi
GNSD Series

Bakır Boru / Copper Tube	5/8"	Kalıp / Geometry	40 mm x 35 mm	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)	Adet Qty	Çap Diameter	Hava Debisi Air Flow
	m^2	dm^3	W	W	W	W	(n)	mm	m^3/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	2	450	8.300
GNSD 45214	81,25	22,3	25.000	23.680	19.835	15.743		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	81,25	22,3	30.855	29.340	25.000	20.000	3	450	12.450
GNSD 45314	121,88	33,4	37.500	35.500	29.750	23.615		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	108,34	29,7	41.140	39.100	33.400	27.200	4	450	16.600
GNSD 45414	162,50	44,5	50.000	47.360	59.500	31.500		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	L_T	L_C	L_U	H_1	H_2	W_1	W_2	W_3
	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm
GNSD 40112	86	61	52	53	--	--	55	55	44	41	34
GNSD 40114	86	61	62	53	--	--	55	55	51	48	41
GNSD 40212	136	61	52	--	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	52	--	133	--	75	72	49	41	34
GNSD 45214	166	80	62	--	133	--	75	72	55	48	41
GNSD 50212	166	80	52	--	133	--	75	72	49	41	34
GNSD 50214	166	80	62	--	133	--	75	72	55	48	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

Bakır Boru / Copper Tube	5/8"	Kalıp / Geometry	40 mm x 35 mm	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)	Adet Qty	Çap Diameter	Hava Debisi Air Flow	B1 Batarya Coil
	m^2	dm^3	W	W	W	W	(n)	mm	m^3/h	nXW
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	12.285	10.875	8.832	7.500	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	37,49	14,8	16.263	15.420	13.100	12.000		450	8.790	6x700
GNSA 45214	56,24	22,3	20.840	19.670	16.360	14.000	2	450	7.900	8x700
GNSA 50212	37,49	14,8	19.442	18.630	16.000	14.600		500	12.500	6x700
GNSA 50214	56,24	22,3	24.375	23.340	19.610	18.500		500	10.385	8x700
GNSA 45312	56,24	22,3	24.395	23.130	19.650	18.000		450	13.185	6x1050
GNSA 45314	84,36	33,4	31.260	29.505	24.540	21.000	3	450	11.850	8x1050
GNSA 50312	56,24	22,3	29.163	27.945	24.000	21.900		500	18.750	6x1050
GNSA 50314	84,36	33,4	36.563	35.010	29.415	27.750		500	15.578	8x1050
GNSA 45412	74,98	29,7	32.526	30.840	26.200	24.000		450	17.580	6X1350
GNSA 45414	112,48	44,5	41.680	39.340	32.720	28.000	4	450	15.800	8X1350
GNSA 50412	74,98	29,7	38.884	37.260	32.000	29.200		500	25.000	6X1350
GNSA 50414	112,48	44,5	48.750	46.680	39.220	37.000		500	20.770	8X1350

Model Model	Boyutlar Dimensions										
	L	H	W	L_T	L_C	L_U	H_1	H_2	W_1	W_2	W_3
	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm
GNSA 40112	86	61	52	53	--	--	55	55	44	41	34
GNSA 40114	86	61	62	53	--	--	55	55	51	48	41
GNSA 40212	136	61	52	--	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	52	--	133	--	75	72	49	41	34
GNSA 45214	166	80	62	--	133	--	75	72	55	48	41
GNSA 50212	166	80	52	--	133	--	75	72	49	41	34
GNSA 50214	166	80	62	--	133	--	75	72	55	48	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 Series

Bakır Boru / Copper Tube	5/8"	Kalıp / Geometry	40 mm x 35 mm	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)	Adet Qty	Çap Diameter	Hava Debisi Air Flow	B1 Batarya Coil
	m^2	dm^3	W	W	W	W	(n)	mm	m^3/h	nXW
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	-	-	10.740	8.889	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	-	-	10.825	6.892	2	450	9.020	6x700
GNSS 45214	43,73	22,3	-	-	13.825	9.545		450	8.225	8x700
GNSS 50212	29,16	14,8	-	-	13.390	10.185		500	13.000	6x700
GNSS 50214	43,73	22,3	-	-	16.975	15.000		500	11.200	8x700
GNSS 45312	43,74	22,3	-	-	16.238	10.338	3	450	13.530	6x1050
GNSS 45314	65,60	33,4	-	-	20.738	14.318		450	12.338	8x1050
GNSS 50312	43,74	22,3	-	-	20.085	15.278		500	19.500	6x1050
GNSS 50314	65,60	33,4	-	-	25.463	22.500		500	16.800	8x1050
GNSS 45412	58,32	29,7	-	-	26.780	20.370	4	450	18.040	6X1350
GNSS 45414	87,46	44,5	-	-	33.950	30.000		450	16.450	8X1350
GNSS 50412	58,32	29,7	-	-	32.475	20.676		500	26.000	6X1350
GNSS 50414	87,46	44,5	-	-	41.475	28.635		500	22.400	8X1350

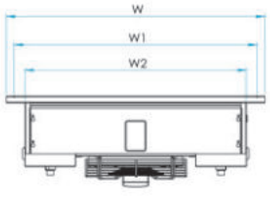
Model Model	Boyutlar Dimensions										
	L	H	W	L_T	L_C	L_U	H_1	H_2	W_1	W_2	W_3
	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm
GNSS 40112	86	61	52	53	--	--	55	55	44	41	34
GNSS 40114	86	61	62	53	--	--	55	55	51	48	41
GNSS 40212	136	61	52	--	103	--	55	55	44	41	34
GNSS 40214	136	61	62	--	103	--	55	55	51	48	41
GNSS 40312	186	61	56	--	--	153	58	55	49	45	34
GNSS 40314	186	61	62	--	--	153	58	55	55	51	41
GNSS 45212	166	80	52	--	133	--	75	72	49	41	34
GNSS 45214	166	80	62	--	133	--	75	72	55	48	41
GNSS 50212	166	80	52	--	133	--	75	72	49	41	34
GNSS 50214	166	80	62	--	133	--	75	72	55	48	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

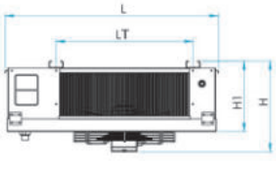
TEKNİK BİLGİLER
Technical Information

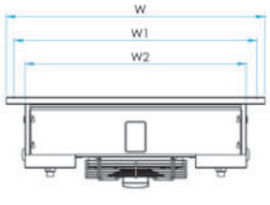
Bakır Boru / Copper Tube : 1/2"
Kalıp / Geometry : 40 mm x 35 mm
Hatve / Fin Spacing : 4 mm

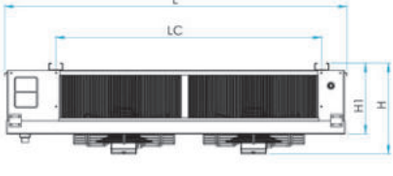
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

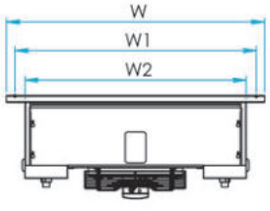
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

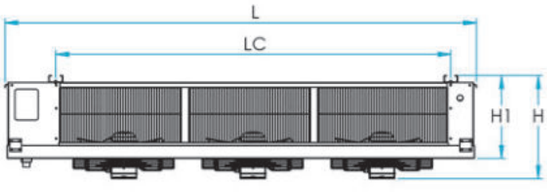












Bakır Boru / Copper Tube	1/2"	Kalıp / Geometry	40 mm x 35 mm	Hatve / Fin Spacing	4 mm

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% GLİKOL) Tair=+16°C (70%RH)	Special Condition1 Tin=-2°C Tout=+2°C (25% GLİKOL) Tair=+10°C (70%RH)	Adet Qty	Çap Diameter	Hava Debisi Air Flow
	m^2	dm^3	kW	kW	(n)	mm	m^3/h
GMCD40 111	19,48	3,3	5,74	4,98	1	400	3.311
GMCD45 111	25,98	4,3	8,57	7,94		450	4.258
GMCD50 111	30,31	5,1	9,87	8,70		500	5.987
GMCD40 211	38,96	6,6	11,48	9,96	2	400	6.622
GMCD45 211	51,96	8,6	17,14	15,88		450	8.516
GMCD50 211	60,62	10,2	19,74	17,40		500	11.974
GMCD40 311	58,44	9,9	17,22	14,94	3	400	9.933
GMCD45 311	77,94	12,9	25,71	23,82		450	12.774
GMCD50 311	90,93	15,3	29,61	26,10		500	17.961
GMCD40 411	77,92	13,20	22,96	19,92	4	400	13.244
GMCD45 411	103,92	17,20	34,28	31,76		450	17.032
GMCD50 411	121,24	20,40	39,48	34,80		500	23.948

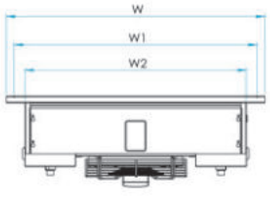
Model Model	Boyutlar Dimensions										
	L	H	W	L_T	L_C	L_U	H_1	H_2	W_1	W_2	W_3
	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm
GMCD40 111	93	44	100	63	-	-	34	-	96	86	-
GMCD45 111	93	51	110	63	-	-	42	-	106	96	-
GMCD50 111	103	51	110	73	-	-	42	-	106	96	-
GMCD40 211	153	44	100	-	123	-	34	-	96	86	-
GMCD45 211	153	51	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	-

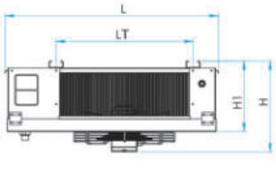
TEKNİK BİLGİLER
Technical Information

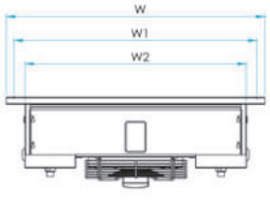
Bakır Boru / Copper Tube : 1/2"
Kalıp / Geometry : 40 mm x 35 mm
Hatve / Fin Spacing : 6 mm

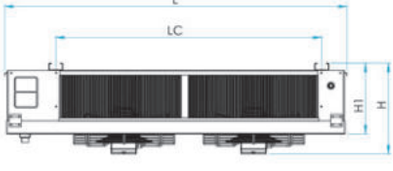
Belirtilen kapasiteler EBM, Ziehl - Abegg ve muadili fanlara göre hesaplanmıştır.

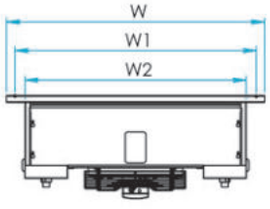
Capacities are calculated according to EBM or Ziehl-Abegg or equivalent brand fans.

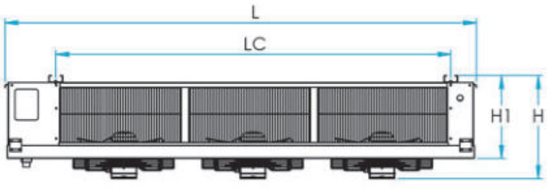












Bakır Boru / Copper Tube	1/2"	Kalıp / Geometry	40 mm x 35 mm	Hatve / Fin Spacing	6 mm

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% GLİKOL) Tair=+16°C (70%RH)	Special Condition1 Tin=-2°C Tout=+2°C (25% GLİKOL) Tair=+10°C (70%RH)	Adet Qty	Çap Diameter	Hava Debisi Air Flow
	m^2	dm^3	kW	kW	(n)	mm	m^3/h
GMCA40 111	13,37	3,3	5,61	5,39	1	400	3.678
GMCA45 111	17,83	4,3	6,51	6,02		450	4.552
GMCA50 111	20,80	5,1	8,85	8,46		500	6.900
GMCA40 211	26,74	6,6	11,22	10,78	2	400	7.356
GMCA45 211	35,66	8,6	13,02	12,04		450	9.104
GMCA50 211	41,60	10,2	17,70	16,92		500	13.800
GMCA40 311	40,11	9,9	16,83	16,17	3	400	11.034
GMCA45 311	53,49	12,9	19,53	18,06		450	13.656
GMCA50 311	62,40	15,3	26,55	25,38		500	20.700
GMCA40 411	53,48	13,2	22,44	21,56	4	400	14.712
GMCA45 411	71,32	17,2	26,04	24,08		450	18.208
GMCA50 411	83,20	20,4	35,40	33,84		500	27.600

Model Model	Boyutlar Dimensions										
	L	H	W	L_T	L_C	L_U	H_1	H_2	W_1	W_2	W_3
	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm
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	-

BUZÇELİK
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