

BUZÇELİK

THERMIC EQUIPMENTS INDUSTRY

**STANDART
ODA SOĞUTUCULARI**
cubic
type unit coolers

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



www.buzcelik.com.tr

Hakkımızda

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

Farklı teknolojileri içeren bir ürün portföyünün yanı sıra kapsamlı bir destek sunan Buzçelik, 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.

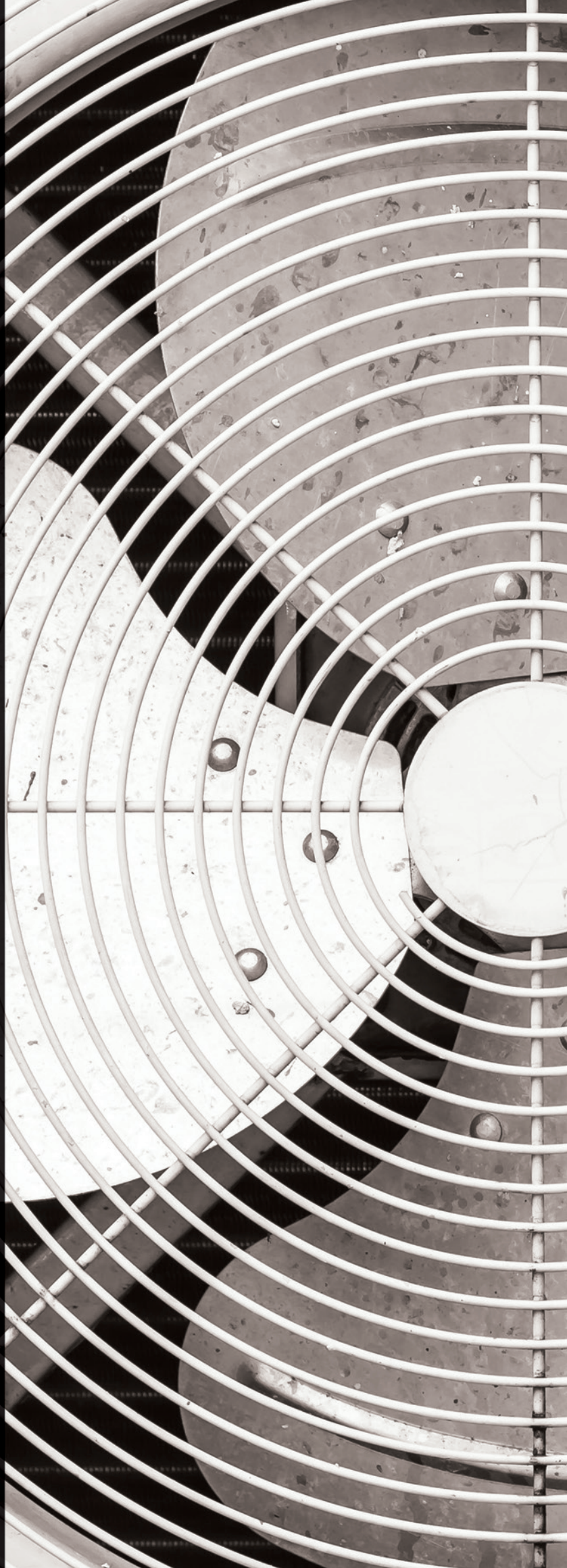
Kuruluşundan bu yana iş ortamıyla uzun vadeli ilişkiler kurmayı temel ilke olarak kabul ederek sektörün önde gelen şirketlerinden biri olmuştur ve kendini sektörde ilerletmek için hayati önlemler almıştır.

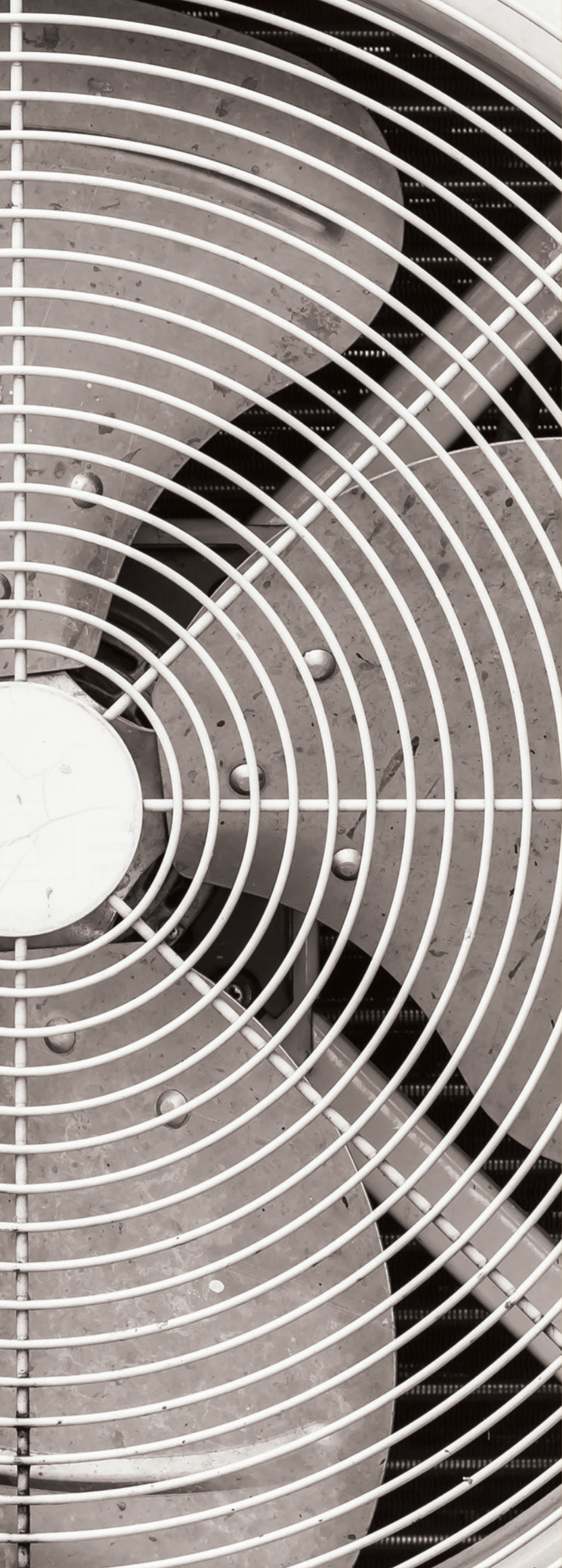
Sektörel koşulları göz önüne alan Buzçelik, bazı önemli özellikleriyle ayrılmaktadır:

- 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, bayiiler ve tedarikçilerle bu hedeflere ulaşmak için çalışır. Buzçelik'in büyümesinin temeli, yenilikçi gücüne bağlıdır ve ana hedefi beklentileri aşarak müşteri memnuniyetini artırmaktır. Buzçelik, 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. Buzçelik'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





STANDART ODA SOĞUTUCULARI

standard
unit coolers

KSD / KSA SERIES
08-11

MSD / MSA / MSS / MSO SERIES
12-24

NSS / NSO SERIES
26-31

OSS / OSO SERIES
32-38

PSS / PSO SERIES
40-44



Standart Oda Soğutucuları

Standard Unit Coolers

BATARYA

- Bakır borular Ø3/8", Ø1/2", Ø5/8".
- V-tipi alüminyum lamel.
- Lamel araları 4-6-8-10 mm tasarlanmıştır.
- Giriş – çıkış kolektör malzemesi bakırdır.
- İzin verilen en yüksek çalışma basıncı Ps=21 Bar.
- Şaşırtmalı boru dizilimi.
- Soğutucular R404A, R507C, R22, R134A, R407F, R449A soğutucu gazlarla çalışmaya uygun tasarımı.
- Opsiyonel olarak 4mm ile 12mm aralığında farklı hatveler seçeneği.
- Soğutucu akışkan distribütörü.

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.

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.

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 artırılmış soğutucu tasarımı ile sulu defrost seçeneği.
- - B1 (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

KAPASİTE

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

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 iletişime geçin.

NOT

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

AKSESUARLAR

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

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 10 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, R134A, R449A, R407F.
- Different fin spacing can be selected as an option for 4mm to 12mm.
- Refrigerant distributor.

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 all models.
- Intermediate drain pan.

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. (Axicool Fans, FlowGrid etc.)
- Working conditions -40°C/+50°C.

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/0°C frozen room applications.
- Defrost heaters are applied on both heat exchanger coil and drain tray.
- Drain line heaters, fan housing heaters, hot gas defrost system and water 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.
- - B1 (Factory) : Light electric defrost
- - B2 (Factory) : Electric defrost (coil + drain pan)
- - HGD (Factory) : Hot gas (coil and drain pan)
- - WD (Factory) : Water defrost

Capacity

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

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.

Note

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

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
Glycol options available - Selections should be confirmed by your Buzçelik Technical Specialist



ADLANDIRMA CLASIFICATION

MSA 40 212

Geometri Geometry

K : 32x28-3/8"
M : 40x35-1/2"
N : 40x35-5/8"
O : 55x48-1/2"
P : 55x48-5/8"

Tip Type

S : Kübik Tip
T : Tek Üflemlili Tavan Tipi
C : Çift Üflemlili Tavan Tipi
S : Cubic Unit Cooler
T : Single Discharge Unit Cooler
C : Dual Discharge Unit Cooler

Hatve Aralığı Fin Space

D : 4mm
A : 6mm
S : 8mm
O : 10mm

Fan Çapı Fan Diameter

Ø...cm

Fan Dizisi Fan Array

Sütun x Satır
Column x Row

Ürün Numarası Product Number

KAPASİTE STANDARTLARI CAPACITY STANDARD

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

$\Delta T_1 = (\text{Oda Sıcaklığı}) - (\text{Evaporasyon Sıcaklığı})$

Tablo-1 : Standart Şartlar (Eurovent EN 328)

Freon için Standart Şartlar	Oda Sıcaklığı °C	Evaporasyon Sıcaklığı °C
SC1	10	0
SC2	0	-8
SC3	-18	-25
SC4	-25	-31

Nominal capacities in the catalog are given according to ΔT_1 as defined in EN 328 standard conditions of Eurovent.

$\Delta T_1 = (\text{Room Temp.}) - (\text{Evaporation Temp.})$

Table-1 Standard Conditions (Eurovent EN 328)

Standard Conditions for Refrigerants	Room Temperature °C	Evaporating Temp. °C
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 STANDARD	LAMEL ARALIĞI Fin Spacing	ODA SICAKLIĞI (T1) Room Temp. (T1)
SC1	4mm ~ 6mm	10°C
SC2	6mm ~ 8mm	0°C
SC3	8mm ~ 10mm	-18°C
SC4	10mm	-25°C



Standart Oda Soğutucuları

Standard Unit Coolers

TABLO-3 / Table-3

Sıcaklık ve Soğutucu için Düzeltme Tablosu														
Temperature and Refrigerant Correction Table														
ΔT_1 (°C)	K_1 Sıcaklık Düzeltme Faktörü Temperature Correction Factor									K_2 Soğutucu Faktör Refrigerant Factor				
	4	5	6	7	8	10	12	14	Refrigerant	SC1	SC2	SC3	SC4	
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	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
	0	0,6	0,75	0,9	1,06	1,2	1,52 (K _{1,SC1})	1,82	2,12	R134A	0,93	0,91	0,85	-
	-5	0,57	0,72	0,86	1,01	1,15	1,44	1,74	2,03	R22				
	-8	0,5	0,63	0,76	0,88	1,00 (K _{1,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 (K _{1,SC3})	0,83	1,04	1,25	1,46					
	-30	0,39	0,49	0,58 (K _{1,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 Aluminium	Kaplı Alüminyum Coated Aluminium	Bakır Copper
K_3	1	0,97	1,03

ÖRNEK SEÇİM

Selection Example

Evaporatör çalışma şartları standart 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 Yüğü: Q_{Oda} = 22,00 kW

Soğutucu Akışkan = R22

Oda Sıcaklığı : T₁ = +5°C

Evaporasyon Sıcaklığı : T₂ = -5°C

$\Delta T = T_1 - T_2 = (5) - (-5) = 10^\circ\text{C}$

Mevcut şartlara yakın olan SC2 Eurovent Standardı seçilir.

Tablo-2 : 6mm Lamel seçildi

Tablo-3 : $\Delta T=10^\circ\text{C} \Rightarrow K_1=1,44$

Tablo-3 : $K_1,SC2=1,00$

Tablo-3 : Soğutkan : R22 $\Rightarrow K_2=0,97$

Fin Malzemesi : Al

Tablo-4 : $K_3=1,00$

$Q_{SC2} = (Q_{ODA}/K_2) \times (K_1,SC2/K_1) / K_3 = 15,75 \text{ kW}$

Secilen Soğutucu : KSA50 214 (SC2= 15.600.Watt)

If the operating condition of the evaporator is different than Eurovent standards, please use the following formula and tables to convert your capacity to SC2 conditions. In 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

$\Delta T = T_1 - T_2 = (5) - (-5) = 10^\circ\text{C}$

Closest Eurovent Standard is SC2.

Table-2 : 6mm Fin Spacing is chosen.

Table-3 : $\Delta T=10^\circ\text{C} \Rightarrow K_1=1,44$

Table-3 : $K_1,SC2=1,00$

Table-3 : Refrigerant: R22 $\Rightarrow K_2=0,97$

Fin Material: Al

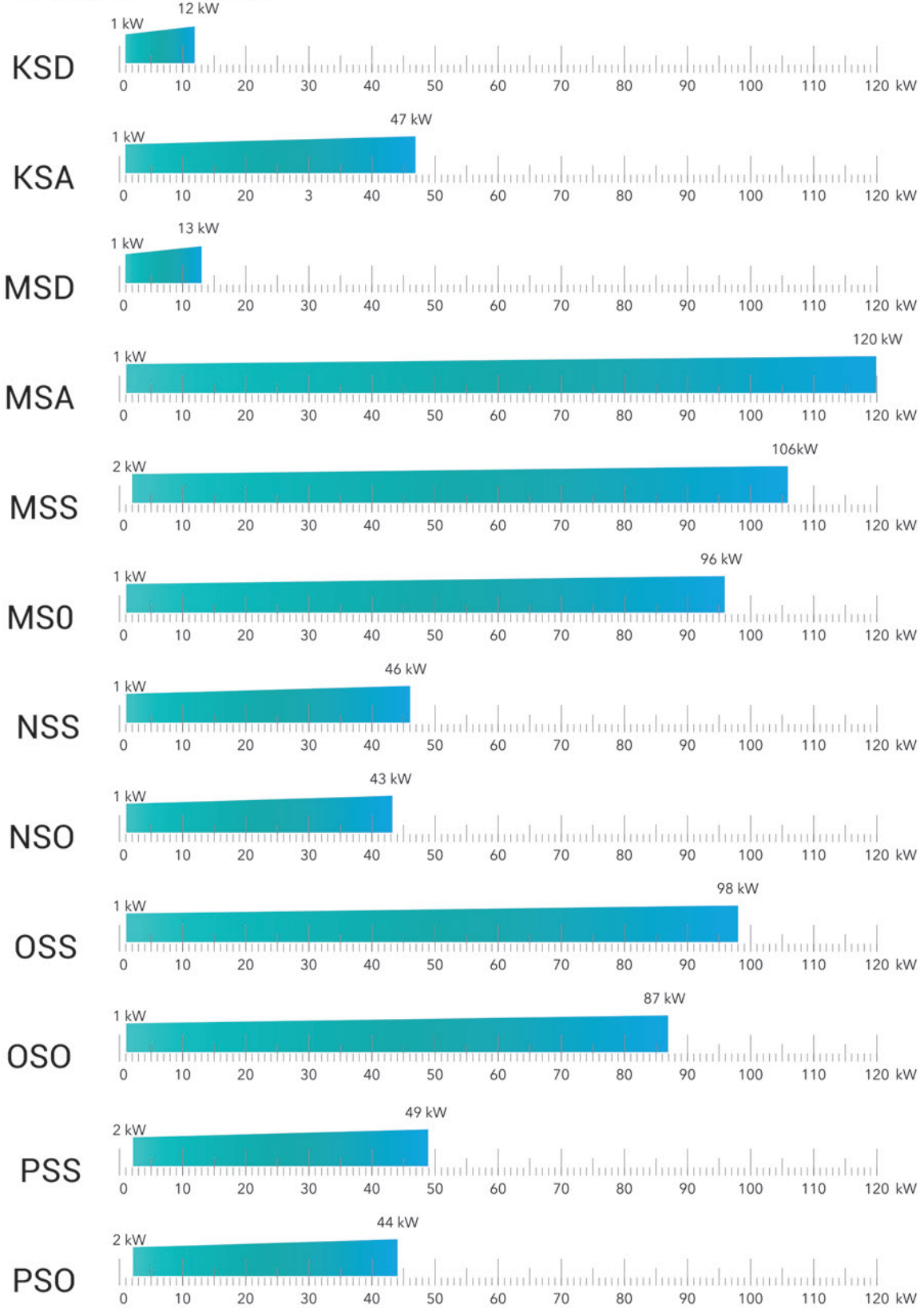
Table-4 : $K_3=1,00$

$Q_{SC2} = (Q_{ODA}/K_2) \times (K_1,SC2/K_1) / K_3 = 15,75 \text{ kW}$

Selected Unit Cooler: KSA50 214 (SC2= 15.600.Watt)



ÜRÜN KAPASİTE ARALIĞI CAPACITY RANGE



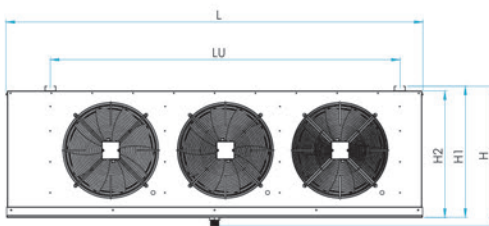
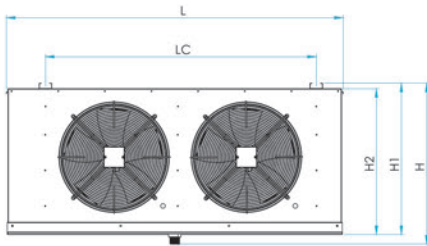
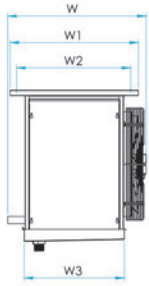
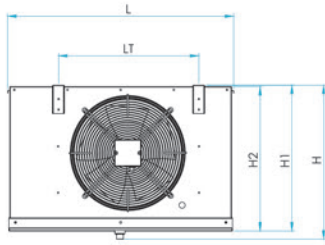
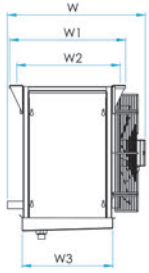
KSD-KSA SERİSİ TEKNİK BİLGİLER

KSD-KSA Series Technical Information

Bakır Boru / Copper Tube	: 3/8"
Kalıp / Geometry	: 32 mm x 28 mm
Hatve / Fin Spacing	: 4 mm - 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

3/8"

Kalıp / Geometry

32 mm x 28 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					Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)
(m ²)	(dm ³)	(Watt)	(Watt)	(Watt)	(Watt)	(m ³ /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
KSD30 111	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	3.872	2.654	-	-	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	28,65	3,90	9.150	6.195	-	-	4.155	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										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
	(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
KSD25 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSD25 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSD30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSD30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSD30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
KSD25 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
KSD25 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
KSD30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
KSD30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
KSD30 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
KSD30 312	4x750	4x750	2x750	166	51	47	-	-	138	46	46	39	36	29
KSD30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36



KSA SERİSİ

KSA SERIES

Bakır Boru / Copper Tube

3/8"

Kalıp / Geometry

32 mm x 28 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					Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)
(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			6	13			
KSA25 114	9,88	2,00	1.920	1.310	1.070	-	610			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				10	22		
KSA30 114	9,88	2,00	3.223	2.200	1.743	-	1.333				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			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			10	22			
KSA30 214	19,76	4,00	6.446	4.400	3.486	-	2.666		10	20				
KSA30 312	19,74	3,90	7.632	5.163	4.014	-	4.341		300	216	46	10	22	
KSA30 314	29,64	6,00	9.669	6.600	5.229	-	3.999	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	219	51	13	27	
KSA40 114	13,72	2,75	5.783	3.925	3.140	-	2.889			400	219	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	438	54	13	27	
KSA40 214	27,43	5,50	11.566	7.850	6.280	-	5.778			400	438	54	11	24

Model Model	Defrost Isitıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
KSA25 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSA25 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSA25 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
KSA30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSA30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
KSA30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
KSA25 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
KSA25 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
KSA30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
KSA30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
KSA30 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
KSA30 312	4x750	4x750	2x750	166	51	47	-	-	138	46	46	39	36	29
KSA30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36
KSA35 112	5x300	5x300	2x300	86	61	52	53	-	-	58	55	44	41	34
KSA35 114	7x300	7x300	2x300	86	61	62	53	-	-	58	55	51	48	41
KSA40 112	5x300	5x300	2x300	86	61	52	53	-	-	58	55	44	41	34
KSA40 114	7x300	7x300	2x300	86	61	62	53	-	-	58	55	51	48	41
KSA35 212	5x550	5x550	2x550	136	61	52	-	103	-	58	55	44	41	34
KSA35 214	7x550	7x550	2x550	136	61	62	-	103	-	58	55	51	48	41
KSA40 212	5x550	5x550	2x550	136	61	52	-	103	-	58	55	44	41	34
KSA40 214	7x550	7x550	2x550	136	61	62	-	103	-	58	55	51	48	41



Bakır Boru / Copper Tube

3/8"

Kalıp / Geometry

32 mm x 28 mm

Hatve / Fin Spacing

6 mm

Model Model	Yüzeý Area	Boru Hacmi Tube Volume	Kapasite Capacity				Fanlar Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C							
(m ²)	(dm ³)	(Watt)	(Watt)	(Watt)	(Watt)	(m ³ /h)	(m)	(Ø mm)	(Watt)	(dB(A))	(m)	(m)	
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	657	56	13	27
KSA40 314	41,15	8,25	17.349	11.775	9.420	-	8.667	400	657	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	876	57	13	27
KSA40 414	54,86	11,00	23.132	15.700	12.560	-	11.556	400	876	57	11	24	
KSA45 212	31,70	6,40	14.671	9.880	7.800	-	9.521	2	450	606	50	15	31
KSA45 214	47,54	9,60	19.225	12.970	9.970	-	8.865		450	606	50	14	29
KSA50 212	31,70	6,40	18.020	12.000	9.510	-	13.800		500	1.520	59	19	41
KSA50 214	47,54	9,60	23.210	15.600	12.490	-	12.220	500	1.520	59	17	36	
KSA45 312	47,55	9,60	22.007	14.820	11.700	-	14.282	3	450	909	52	15	31
KSA45 314	71,31	14,40	28.838	19.455	14.955	-	13.298		450	909	52	14	29
KSA50 312	47,55	9,60	27.190	18.150	14.350	-	20.700		500	2.280	61	19	41
KSA50 314	71,31	14,40	35.020	23.580	18.340	-	18.330	500	2.280	61	17	36	
KSA45 412	63,40	12,80	29.342	19.760	15.600	-	19.042	4	450	1.212	53	15	31
KSA45 414	95,08	19,20	38.450	25.940	19.940	-	17.730		450	1.212	53	14	29
KSA50 412	63,40	12,80	35.760	24.040	18.960	-	27.610		500	3.040	62	19	41
KSA50 414	95,08	19,20	46.940	31.560	24.890	-	24.440	500	3.040	62	17	36	

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
KSA35 312	5x800	5x800	2x800	186	61	52	-	-	153	58	55	49	45	34
KSA35 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	55	51	41
KSA40 312	5x800	5x800	2x800	186	61	52	-	-	153	58	55	49	45	34
KSA40 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	55	51	41
KSA35 412	5x1050	5x1050	2x1050	237	61	52	-	130	-	58	55	49	45	34
KSA35 414	7x1050	7x1050	2x1050	237	61	62	-	130	-	58	55	55	51	41
KSA40 412	5x1050	5x1050	2x1050	237	61	52	-	130	-	58	55	49	45	34
KSA40 414	7x1050	7x1050	2x1050	237	61	62	-	130	-	58	55	55	51	41
KSA45 212	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
KSA45 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
KSA50 212	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
KSA50 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
KSA45 312	6x1050	6x1050	2x1050	237	80	52	-	-	198	75	72	49	45	34
KSA45 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
KSA50 312	6x1050	6x1050	2x1050	237	80	52	-	-	198	75	72	49	45	34
KSA50 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
KSA45 412	6X1350	6X1350	2X1350	302	80	52	-	130	-	75	72	49	45	34
KSA45 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
KSA50 412	6X1350	6X1350	2X1350	302	80	52	-	130	-	75	72	49	45	34
KSA50 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41



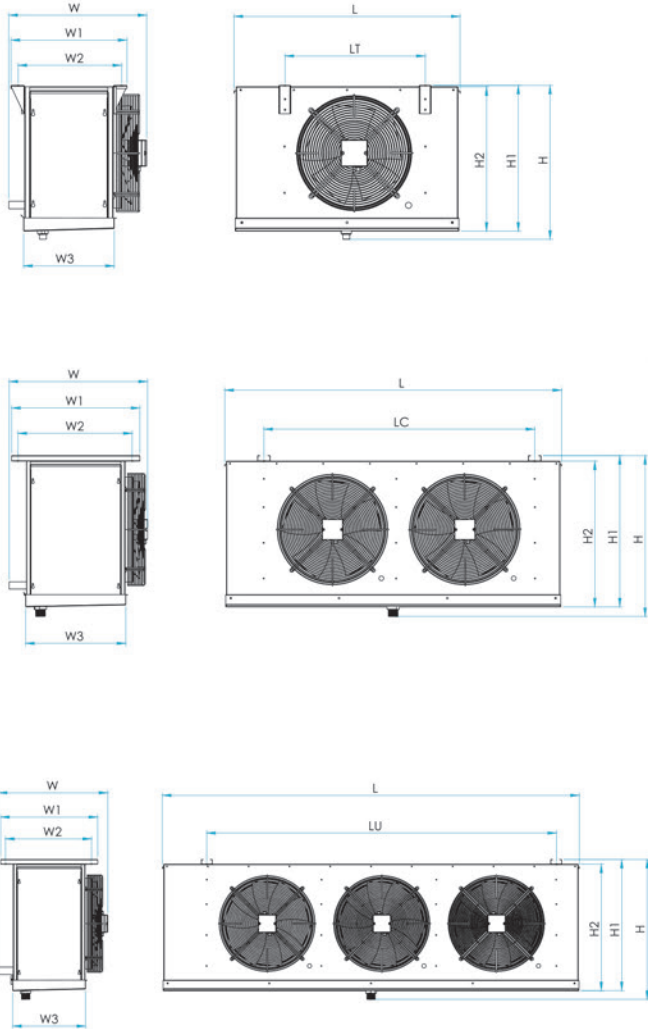
MSD-MSA-MSS-MSO SERİSİ TEKNİK BİLGİLER

MSD-MSA-MSS-MSO Series Technical Information

Bakır Boru / Copper Tube	: 1/2"
Kalıp / Geometry	: 40 mm x 35 mm
Hatve / Fin Spacing	: 4 mm - 6 mm - 8 mm - 10 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					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer
			Te= 0°C TO= +10°C	Te= -8°C TO= 0°C	Te= -25°C TO= -18°C	Te= -31°C TO= -25°C							
MSD25 111	9,13	1,55	1.943	1.328	-	-	684	1	250	69	46	6	13
MSD25 112	12,17	2,07	2.069	1.421	-	-	619						
MSD30 111	9,13	1,55	3.040	2.044	-	-	1.436						
MSD30 112	12,17	2,07	3.599	2.463	-	-	1.354	2	300	72	41	10	22
MSD30 114	18,26	3,10	4.161	2.857	-	-	1.220						
MSD25 211	18,26	3,10	3.887	2.656	-	-	1.368						
MSD25 212	24,34	4,13	4.137	2.843	-	-	1.238	3	250	138	49	6	13
MSD30 211	18,26	3,10	6.079	4.088	-	-	2.872						
MSD30 212	24,34	4,13	7.198	4.925	-	-	2.708						
MSD30 311	27,39	4,65	9.119	6.132	-	-	4.308	3	300	216	46	10	22
MSD30 312	36,51	6,20	10.798	7.388	-	-	4.062						
MSD30 314	54,78	9,30	12.482	8.570	-	-	3.660						

Model Model	Defrost Isitıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
MSD25 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSD25 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSD30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSD30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSD30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
MSD25 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSD25 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSD30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSD30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSD30 311	3x750	3x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MSD30 312	4x750	4x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MSD30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36



MSA SERİSİ

MSA 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					Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)
(m ²)	(dm ³)	(Watt)	(Watt)	(Watt)	(Watt)	(m ³ /h)	(n)	(Ø mm)	(Watt)	(dB(A))	(m)	(m)		
MSA25 111	6,27	1,55	1.675	1.143	906	-	750	1		250	69	46	6	14
MSA25 112	8,36	2,07	1.940	1.320	1.024	-	670			250	69	46	6	12
MSA30 111	6,27	1,55	2.484	1.669	1.233	-	1.496			300	72	41	11	23
MSA30 112	8,36	2,07	2.975	2.019	1.620	-	1.425			300	72	41	10	22
MSA30 114	12,54	3,10	3.695	2.524	1.970	-	1.305	2		300	72	41	9	20
MSA25 211	12,53	3,10	3.349	2.285	1.812	-	1.500			250	138	49	6	14
MSA25 212	16,71	4,13	3.891	2.640	2.059	-	1.350			250	138	49	6	12
MSA30 211	12,53	3,10	4.968	3.337	2.466	-	2.992			300	144	44	11	23
MSA30 212	16,71	4,13	5.949	4.039	3.241	-	2.850	3		300	144	44	10	22
MSA30 311	18,80	4,65	7.453	5.006	3.700	-	4.488			300	216	46	11	23
MSA30 312	25,07	6,20	8.924	6.058	4.861	-	4.275			300	216	46	10	22
MSA30 314	37,61	9,30	11.084	7.571	5.910	-	3.915			300	216	46	9	20
MSA35 111	8,36	2,05	3.902	2.640	2.103	-	2.725	1		350	165	44	12	26
MSA35 112	11,15	2,73	4.693	3.194	2.571	-	2.582			350	165	44	12	25
MSA35 114	16,72	4,10	5.976	4.069	3.185	-	2.345			350	165	44	11	23
MSA40 111	8,36	2,05	4.309	2.906	2.298	-	3.312			400	219	51	13	28
MSA40 112	11,15	2,73	5.184	3.520	2.857	-	3.100	2		400	219	51	12	26
MSA40 114	16,72	4,10	6.560	4.492	3.620	-	2.772			400	219	51	11	23
MSA35 211	16,72	4,10	7.803	5.280	4.206	-	5.450			350	330	47	12	26
MSA35 212	22,29	5,47	9.385	6.389	5.142	-	5.164			350	330	47	12	25
MSA35 214	33,44	8,20	11.952	8.138	6.369	-	4.690	2		350	330	47	11	23
MSA40 211	16,72	4,10	8.619	5.812	4.596	-	6.624			400	438	54	13	28
MSA40 212	22,29	5,47	10.368	7.041	5.713	-	6.200			400	438	54	12	26
MSA40 214	33,44	8,20	13.120	8.983	7.240	-	5.544			400	438	54	11	23

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D Tray											
MSA25 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSA25 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSA30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSA30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSA30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
MSA25 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSA25 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSA30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSA30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSA30 311	3x750	3x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MSA30 312	4x750	4x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MSA30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36
MSA35 111	4x300	4x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MSA35 112	5x300	5x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MSA35 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41
MSA40 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
MSA40 112	5x300	5x300	2x300	86	61	52	53	-	-	55	55	44	41	34
MSA40 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41
MSA35 211	4x550	4x550	2x550	136	61	56	-	103	-	55	55	44	41	34
MSA35 212	5x550	5x550	2x550	136	61	56	-	103	-	55	55	44	41	34
MSA35 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41
MSA40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
MSA40 212	5x550	5x550	2x550	136	61	52	-	103	-	55	55	44	41	34
MSA40 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41



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				Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fanlar Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4			Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C			(Ø mm)	(Watt)	(dB(A))	(m)	(m)	
MSA35 311	25,08	6,15	11.705	7.919	6.309	-	8.175	3	350	495	49	12	26	
MSA35 312	33,44	8,20	14.078	9.583	7.713	-	7.746		350	495	49	12	25	
MSA35 314	50,16	12,30	17.928	12.207	9.554	-	7.035		350	495	49	11	23	
MSA40 311	25,08	6,15	12.928	8.717	6.894	-	9.936		400	657	56	13	28	
MSA40 312	33,44	8,20	15.552	10.561	8.570	-	9.300	400	657	56	12	26		
MSA40 314	50,16	12,30	19.680	13.475	10.860	-	8.316	400	990	56	11	23		
MSA45 211	28,98	7,05	13.975	9.436	7.388	-	9.760	2	450	606	50	15	32	
MSA45 212	38,63	9,40	17.084	11.589	9.220	-	9.350		450	606	50	14	31	
MSA45 214	57,95	14,10	21.598	14.775	11.938	-	8.640		450	606	50	13	29	
MSA50 211	28,98	7,05	16.587	11.249	8.776	-	14.340		500	1.520	59	20	43	
MSA50 212	38,63	9,40	19.897	13.495	10.540	-	13.280	500	1.520	59	18	39		
MSA50 214	57,95	14,10	26.004	17.651	14.066	-	11.720	500	1.520	59	16	35		
MSA45 312	57,95	14,10	25.626	17.383	13.829	-	14.025	3	450	909	52	14	31	
MSA45 314	86,93	21,15	32.397	22.163	17.907	-	12.960		450	909	52	13	29	
MSA50 312	57,95	14,10	29.855	20.252	15.809	-	19.920		500	2.280	61	18	39	
MSA50 314	86,93	21,15	39.203	26.595	20.636	-	17.580		500	2.280	61	16	35	
MSA45 412	77,27	18,80	34.168	23.177	18.439	-	18.700	4	450	1.212	53	14	31	
MSA45 414	115,90	28,20	43.196	29.550	23.876	-	17.280		450	1.212	53	13	29	
MSA50 412	77,27	18,80	39.804	26.999	21.079	-	26.560		500	3.040	62	18	39	
MSA50 414	115,90	28,20	52.747	35.854	27.777	-	23.450		500	3.040	62	16	35	

Model Model	Defrost Isitıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D. Tray											
MSA35 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
MSA35 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	49	45	34
MSA35 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	55	51	41
MSA40 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
MSA40 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	49	45	34
MSA40 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	55	51	41
MSA45 211	5x700	5x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSA45 212	6x700	6x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSA45 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
MSA50 211	5x700	5x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSA50 212	6x700	6x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSA50 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
MSA45 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSA45 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
MSA50 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSA50 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
MSA45 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MSA45 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
MSA50 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MSA50 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41



MSA SERİSİ MSA 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 880 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiriciz Without Streamer	Akış Yönlendiricili With Streamer
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C							
(m ²)	(dm ³)	(Watt)	(Watt)	(Watt)	(Watt)	(m ³ /h)	(n)	(Ø mm)	(Watt)	(dB(A))	(m)	(m)	
MSA63 212	92,86	22,60	37.602	25.517	-	-	19.120	2	630	3.800	70	20	43
MSA63 214	139,30	33,90	47.440	32.206	-	-	17.907						
MSA63 312	139,29	33,90	56.404	38.276	-	-	28.680	3	630	5.700	72	20	43
MSA63 314	208,95	50,85	71.159	48.308	-	-	26.861						
MSA63 412	185,72	45,20	75.205	51.035	-	-	38.240	4	630	7.600	73	20	43
MSA63 414	278,60	67,80	94.879	64.411	-	-	35.814						
MSA63 512	232,15	56,50	94.006	63.794	-	-	47.800	5	630	9.500	74	20	43
MSA63 514	348,25	84,75	118.599	80.514	-	-	44.768						

Model Model	Defrost Isitcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
MSA63 212	8X1050	8X1050	2X1050	242	115	62	-	203	-	110	108	55	51	41
MSA63 214	10X1050	10X1050	2X1050	242	115	71	-	203	-	110	108	63	59	49
MSA63 312	8X1550	8X1550	2X1550	342	115	62	-	-	303	110	108	55	51	41
MSA63 314	10X1550	10X1550	2X1550	342	115	71	-	-	303	110	108	63	59	49
MSA63 412	8X2050	8X2050	2X2050	442	115	62	-	200	-	110	108	55	51	41
MSA63 414	10X2050	10X2050	2X2050	442	115	71	-	200	-	110	108	63	59	49
MSA63 512	8X2550	8X2550	2X2550	542	115	62	-	-	-	110	108	55	51	41
MSA63 514	10X2550	10X2550	2X2550	542	115	71	-	-	-	110	108	63	59	49



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					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 Elect. Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendirilmiş With Streamer
	(m ²)	(dm ³)	(Watt)	(Watt)	(Watt)	(Watt)	(m ³ /h)	(n)	(Ø mm)	(Watt)	(dB(A))	(m)	(m)
MSS30 111	4,84	1,55	2.112	1.422	1.087	858	1.532	1	300	72	41	11	23
MSS30 112	6,45	2,07	2.538	1.684	1.367	1.104	1.466	1	300	72	41	10	22
MSS30 114	9,67	3,10	3.300	2.256	1.764	1.394	1.354	1	300	72	41	10	21
MSS30 211	9,67	3,10	4.224	2.845	2.175	1.716	3.064	2	300	144	44	11	23
MSS30 212	12,90	4,13	5.077	3.369	2.734	2.208	2.932	2	300	144	44	10	22
MSS30 214	19,35	6,20	6.600	4.511	3.528	2.788	2.708	2	300	144	44	10	21
MSS30 311	14,51	4,65	6.336	4.267	3.262	2.574	4.596	3	300	216	46	11	23
MSS30 312	19,35	6,20	7.615	5.053	4.102	3.313	4.398	3	300	216	46	10	22
MSS30 314	29,02	9,30	9.899	6.767	5.292	4.181	4.062	3	300	216	46	10	21
MSS35 111	6,45	2,05	3.251	2.216	1.783	1.438	2.790	1	350	165	44	13	27
MSS35 112	8,60	2,73	3.940	2.591	2.088	1.675	2.600	1	350	165	44	12	25
MSS35 114	12,90	4,10	5.171	3.448	2.797	2.266	2.400	1	350	165	44	11	23
MSS40 111	6,45	2,05	3.616	2.441	1.954	1.548	3.416	1	400	219	51	13	29
MSS40 112	8,60	2,73	4.404	2.948	2.384	1.908	3.211	1	400	219	51	13	27
MSS40 114	12,90	4,10	5.752	3.871	3.125	2.512	2.900	1	400	219	51	11	24

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
MSS30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSS30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSS30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
MSS30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSS30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSS30 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
MSS30 311	3x750	3x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MSS30 312	4x750	4x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MSS30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36
MSS35 111	4x300	4x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MSS35 112	5x300	5x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MSS35 114	7x300	7x300	2x300	86	61	56	53	-	-	55	55	51	48	41
MSS40 111	4x300	4x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MSS40 112	5x300	5x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MSS40 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41



MSS SERİSİ

MSS SERIES

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					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akis Yönlendirilili With Streamer
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C							
MSS35 211	12,90	4,10	6.501	4.433	3.566	2.876	5.580	2	350	330	47	13	27
MSS35 212	17,19	5,47	7.880	5.181	4.176	3.349	5.200						
MSS35 214	25,79	8,20	10.343	6.895	5.595	4.531	4.800						
MSS40 211	12,90	4,10	7.232	4.882	3.908	3.097	6.832						
MSS40 212	17,19	5,47	8.808	5.896	4.767	3.816	6.422	2	400	438	54	13	27
MSS40 214	25,79	8,20	11.505	7.742	6.251	5.024	5.800						
MSS35 311	19,35	6,15	9.752	6.649	5.349	4.314	8.370						
MSS35 312	25,79	8,20	11.820	7.772	6.265	5.024	7.800						
MSS35 314	38,69	12,30	15.514	10.343	8.392	6.797	7.200	3	350	495	49	11	23
MSS40 311	19,35	6,15	10.848	7.322	5.863	4.645	10.248						
MSS40 312	25,79	8,20	13.212	8.844	7.151	5.724	9.633						
MSS40 314	38,69	12,30	17.257	11.613	9.376	7.535	8.700						
MSS45 211	22,35	7,05	11.653	7.900	6.304	5.080	9.956	2	450	606	50	15	33
MSS45 212	29,80	9,40	14.516	9.850	7.880	6.324	9.590						
MSS45 214	44,71	14,10	18.903	12.914	10.392	8.353	8.940						
MSS45 215	59,61	18,80	21.966	14.861	12.116	9.830	8.400						
MSS50 211	22,35	7,05	14.076	9.535	7.525	6.077	14.790	2	500	1.520	59	21	44
MSS50 212	29,80	9,40	17.346	11.751	9.279	7.486	13.900						
MSS50 214	44,71	14,10	22.832	15.504	12.450	10.027	12.380						
MSS50 215	59,61	18,80	27.314	18.518	14.608	11.790	11.130						
MSS50 215	59,61	18,80	27.314	18.518	14.608	11.790	11.130	2	500	1.520	59	15	33

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D Tray											
MSS35 211	4x550	4x550	2x550	136	61	56	-	103	-	55	55	44	41	34
MSS35 212	5x550	5x550	2x550	136	61	56	-	103	-	55	55	44	41	34
MSS35 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41
MSS40 211	4x550	4x550	2x550	136	61	56	-	103	-	55	55	44	41	34
MSS40 212	5x550	5x550	2x550	136	61	56	-	103	-	55	55	44	41	34
MSS40 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41
MSS35 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	44	45	34
MSS35 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	44	45	34
MSS35 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	51	51	41
MSS40 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	44	45	34
MSS40 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	44	45	34
MSS40 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	51	51	41
MSS45 211	5x700	5x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSS45 212	6x700	6x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSS45 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
MSS45 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
MSS50 211	5x700	5x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSS50 212	6x700	6x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSS50 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
MSS50 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49



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					Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendirilmiş With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)
MSS45 311	33,53	10,58	17.479	11.850	9.456	7.619	14.934	3	450	909	52	15	33	
MSS45 312	44,71	14,10	21.774	14.775	11.820	9.486	14.385		450	909	52	15	32	
MSS45 314	67,06	21,15	28.355	19.372	15.588	12.529	13.410		450	909	52	14	30	
MSS45 315	89,41	28,20	32.948	22.291	18.173	14.745	12.600		450	909	52	13	28	
MSS50 311	33,53	10,58	21.118	14.312	11.298	9.111	22.190		500	2.280	61	21	44	
MSS50 312	44,71	14,10	26.014	17.632	13.918	11.229	20.860		500	2.280	61	19	41	
MSS50 314	67,06	21,15	34.574	23.640	18.567	14.893	18.570		500	2.280	61	17	37	
MSS50 315	89,41	28,20	40.976	27.777	21.916	17.681	16.690		500	2.280	61	15	33	
MSS45 411	44,71	14,10	23.305	15.799	12.608	10.159	19.912		4	450	1.212	53	15	33
MSS45 412	59,61	18,80	29.032	19.700	15.760	12.647	19.180			450	1.212	53	15	32
MSS45 414	89,41	28,20	37.806	25.829	20.784	16.706	17.880			450	1.212	53	14	30
MSS45 415	119,21	37,60	43.931	29.721	24.231	19.661	16.800			450	1.212	53	13	28
MSS50 411	44,71	14,10	28.161	19.079	15.061	12.155	29.590	500		3.040	62	21	44	
MSS50 412	59,61	18,80	34.692	23.512	18.557	14.972	27.810	500		3.040	62	19	41	
MSS50 414	89,41	28,20	46.492	31.520	24.822	20.074	24.760	500		3.040	62	17	37	
MSS50 415	119,21	37,60	54.638	37.036	29.225	23.581	22.260	500		3.040	62	15	33	

Model Model	Defrost Isitıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
MSS45 311	5x1050	5x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSS45 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSS45 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
MSS45 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
MSS50 311	5x1050	5x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSS50 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSS50 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
MSS50 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
MSS45 411	5X1350	5X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MSS45 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	51	34
MSS45 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
MSS45 415	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49
MSS50 411	5X1350	5X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MSS50 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MSS50 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
MSS50 415	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49



MSS SERİSİ

MSS SERIES

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 880 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C							
MSS63 212	71,64	22,60	32.007	21.714	17.378	13.874	19.495	2	630	3.800	70	20	43
MSS63 214	107,46	33,90	41.943	28.482	22.795	18.198	18.424						
MSS63 312	107,46	33,90	48.010	32.571	26.068	20.811	29.243	4	630	5.700	72	19	41
MSS63 314	161,19	50,85	62.915	42.723	34.192	27.297	27.636						
MSS63 412	143,28	45,20	64.013	43.429	34.757	27.747	38.990	630	7.600	73	19	41	
MSS63 414	214,92	67,80	83.887	56.965	45.590	36.396	36.848						630
MSS63 512	179,10	56,50	80.016	54.286	43.446	34.684	48.738	630	9.500	74	19	41	
MSS63 514	268,65	84,75	104.858	71.206	56.987	45.495	46.060						

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
MSS63 212	8X1050	8X1050	2X1050	242	115	62	-	203	-	110	108	55	51	41
MSS63 214	10X1050	10X1050	2X1050	242	115	71	-	203	-	110	108	63	59	49
MSS63 312	8X1550	8X1550	2X1550	342	115	62	-	-	303	110	108	55	51	41
MSS63 314	10X1550	10X1550	2X1550	342	115	71	-	-	303	110	108	63	59	49
MSS63 412	8X2050	8X2050	2X2050	442	115	62	-	200	-	110	108	55	51	41
MSS63 414	10X2050	10X2050	2X2050	442	115	71	-	200	-	110	108	63	59	49
MSS63 512	8X2550	8X2550	2X2550	542	115	62	-	-	-	110	108	55	51	41
MSS63 514	10X2550	10X2550	2X2550	542	115	71	-	-	-	110	108	63	59	49



Bakır Boru / Copper Tube

1/2"

Kalıp / Geometry

40 mm x 35 mm

Hatve / Fin Spacing

10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Hava Debisi Air Flow	Fanlar Fans 230V AC 1300-1400 d/d-rpm				Öfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4		Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C							
MSO30 111	3,98	1,55	1.849	1.248	967	758	1.556	1	300	72	41	11	24
MSO30 112	5,30	2,07	2.200	1.456	1.190	965	1.496	1	300	72	41	11	23
MSO30 114	7,95	3,10	2.985	2.025	1.588	1.267	1.390	1	300	72	41	10	21
MSO30 211	7,95	3,10	3.698	2.496	1.935	1.517	3.112	2	300	144	44	11	24
MSO30 212	10,60	4,13	4.399	2.912	2.380	1.931	2.992	2	300	144	44	11	23
MSO30 214	15,91	6,20	5.969	4.050	3.176	2.533	2.780	2	300	144	44	10	21
MSO30 311	11,93	4,65	5.547	3.744	2.902	2.275	4.668	3	300	216	46	11	24
MSO30 312	15,91	6,20	6.599	4.367	3.570	2.896	4.488	3	300	216	46	11	23
MSO30 314	23,86	9,30	8.954	6.075	4.763	3.800	4.170	3	300	216	46	10	21
MSO35 111	5,30	2,05	2.817	1.901	1.527	1.221	2.820	1	350	165	44	13	27
MSO35 112	7,07	2,73	3.585	2.423	1.940	1.556	2.730	1	350	165	44	12	26
MSO35 114	10,61	4,10	4.787	3.241	2.591	2.088	2.550	1	350	165	44	11	25
MSO40 111	5,30	2,05	3.150	2.126	1.691	1.346	3.500	1	400	219	51	14	29
MSO40 112	7,07	2,73	3.868	2.529	2.066	1.661	3.309	1	400	219	51	13	28
MSO40 114	10,61	4,10	5.157	3.408	2.773	2.236	3.003	1	400	219	51	12	25

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
MSO30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSO30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
MSO30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
MSO30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSO30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
MSO30 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
MSO30 311	3x750	3x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MSO30 312	4x750	4x750	2x750	166	51	51	-	-	138	46	46	39	36	29
MSO30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36
MSO35 111	4x300	4x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MSO35 112	5x300	5x300	2x300	86	61	56	53	-	-	55	55	44	41	34
MSO35 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41
MSO40 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
MSO40 112	5x300	5x300	2x300	86	61	52	53	-	-	55	55	44	41	34
MSO40 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41



MSO SERİSİ

MSO SERIES

Bakır Boru / Copper Tube

1/2"

Kalıp / Geometry

40 mm x 35 mm

Hatve / Fin Spacing

10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fanlar Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4			Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec.t Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Aktif Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C (Watt)	Te= -8°C T0= 0°C (Watt)	Te= -25°C T0= -18°C (Watt)	Te= -31°C T0= -25°C (Watt)			(Ø mm)	(Watt)	dB(A)	(m)	(m)	
MSO35 211	10,61	4,10	5.634	3.802	3.054	2.443	5.640	2	350	330	47	13	27	
MSO35 212	14,14	5,47	7.171	4.846	3.881	3.113	5.460		350	330	47	12	26	
MSO35 214	21,21	8,20	9.574	6.481	5.181	4.176	5.100		350	330	47	11	25	
MSO40 211	10,61	4,10	6.300	4.251	3.382	2.691	7.000		400	438	54	14	29	
MSO40 212	14,14	5,47	7.736	5.059	4.131	3.321	6.618		400	438	54	13	28	
MSO40 214	21,21	8,20	10.315	6.816	5.546	4.472	6.006		400	438	54	12	25	
MSO35 311	15,91	6,15	8.451	5.703	4.580	3.664	8.460	3	350	495	49	13	27	
MSO35 312	21,21	8,20	10.756	7.269	5.821	4.669	8.190		350	495	49	12	26	
MSO35 314	31,82	12,30	14.361	9.722	7.772	6.265	7.650		350	495	49	11	25	
MSO40 311	15,91	6,15	9.450	6.377	5.074	4.037	10.500		400	657	56	14	29	
MSO40 312	21,21	8,20	11.604	7.588	6.197	4.982	9.927		400	657	56	13	28	
MSO40 314	31,82	12,30	15.472	10.224	8.318	6.708	9.009		400	657	56	12	25	
MSO45 211	18,38	7,05	10.165	6.885	5.506	4.433	10.080	2	450	606	50	16	33	
MSO45 212	24,51	9,40	12.785	8.658	6.925	5.575	9.820		450	606	50	15	32	
MSO45 214	36,76	14,10	17.159	11.623	9.298	7.486	9.330		450	606	50	14	31	
MSO45 215	49,01	18,80	20.518	13.898	11.111	8.954	8.900		450	606	50	14	29	
MSO50 211	18,38	7,05	12.224	8.274	6.619	5.329	15.100		500	1.520	59	21	45	
MSO50 212	24,51	9,40	15.248	10.333	8.264	6.649	14.320		500	1.520	59	20	43	
MSO50 214	36,76	14,10	20.488	13.889	11.209	9.023	12.860	500	1.520	59	18	38		
MSO50 215	49,01	18,80	24.763	16.765	13.416	10.796	11.630	500	1.520	59	16	35		

Model Model	Defrost Isticilar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
MSO35 211	4x550	4x550	2x550	136	61	56	-	103	-	55	55	44	41	34
MSO35 212	5x550	5x550	2x550	136	61	56	-	103	-	55	55	44	41	34
MSO35 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41
MSO40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
MSO40 212	5x550	5x550	2x550	136	61	52	-	103	-	55	55	44	41	34
MSO40 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41
MSO35 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	44	45	34
MSO35 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	44	45	34
MSO35 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	51	51	41
MSO40 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	44	45	34
MSO40 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	44	45	34
MSO40 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	51	51	41
MSO45 211	5x700	5x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSO45 212	6x700	6x700	2x700	166	80	56	-	133	-	75	72	49	41	34
MSO45 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
MSO45 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	4,9
MSO50 211	5x700	5x700	2x700	166	80	52	-	133	-	75	72	49	41	34
MSO50 212	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
MSO50 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
MSO50 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49



Bakır Boru / Copper Tube

1/2"

Kalıp / Geometry

40 mm x 35 mm

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	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer			
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(m ³ /h)	(m)	(Ø mm)
MSO45 311	27,57	10,58	15.248	10.328	8.259	6.649	15.120	3	3	450	909	52	16	33		
MSO45 312	36,76	14,10	19.178	12.987	10.387	8.363	14.730			450	909	52	15	32		
MSO45 314	55,14	21,15	25.738	17.435	13.948	11.229	13.995			450	909	52	14	31		
MSO45 315	73,52	28,20	30.776	20.848	16.666	13.430	13.350			450	909	52	14	29		
MSO50 311	27,57	10,58	18.676	12.647	10.116	8.146	22.650			500	2.280	61	21	45		
MSO50 312	36,76	14,10	22.882	15.494	12.391	9.978	21.480			500	2.280	61	20	43		
MSO50 314	55,14	21,15	31.028	21.020	16.765	13.495	19.290			500	2.280	61	18	38		
MSO50 315	73,52	28,20	37.144	25.157	20.124	16.203	17.450			500	2.280	61	16	35		
MSO45 411	36,76	14,10	20.330	13.770	11.012	8.865	20.160			4	4	450	1.212	53	16	33
MSO45 412	49,01	18,80	25.571	17.316	13.849	11.150	19.640					450	1.212	53	15	32
MSO45 414	73,52	28,20	34.317	23.246	18.597	14.972	18.660					450	1.212	53	14	31
MSO45 415	98,03	37,60	41.035	27.797	22.222	17.907	17.800					450	1.212	53	14	29
MSO50 411	36,76	14,10	24.625	16.676	13.337	10.737	30.200					500	3.040	62	21	45
MSO50 412	49,01	18,80	30.505	20.665	16.528	13.307	28.640					500	3.040	62	20	43
MSO50 414	73,52	28,20	41.764	28.270	22.557	18.223	25.720					500	3.040	62	18	38
MSO50 415	98,03	37,60	49.536	33.539	26.831	21.601	23.270	500	3.040			62	16	35		

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
MSO45 311	5x1050	5x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSO45 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSO45 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
MSO45 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
MSO50 311	5x1050	5x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSO50 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
MSO50 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
MSO50 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
MSO45 411	5X1350	5X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MSO45 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	51	34
MSO45 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
MSO45 415	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49
MSO50 411	5X1350	5X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MSO50 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
MSO50 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
MSO50 415	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49



MSO SERİSİ MSO SERIES

Bakır Boru / Copper Tube 1/2"

Kalıp / Geometry 40 mm x 35 mm

Hatve / Fin Spacing 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Fanlar Fans 230V AC 880 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akis Yönlendiricili With Streamer
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C							
MSO63 212	58,91	22,60	28.039	19.057	15.170	12.149	19.740	2	630	3.800	70	21	44
MSO63 214	88,36	33,90	37.701	25.600	20.094	16.033	18.772	2	630	3.800	70	20	42
MSO63 312	88,37	33,90	42.059	28.585	22.755	18.223	29.610	3	630	5.700	72	21	44
MSO63 314	132,54	50,85	56.551	38.400	30.141	24.049	28.158	3	630	5.700	72	20	42
MSO63 412	117,82	45,20	56.078	38.114	30.340	24.298	39.480	4	630	7.600	73	21	44
MSO63 414	176,72	67,80	75.402	51.200	40.188	32.066	37.544	4	630	7.600	73	20	42
MSO63 512	147,28	56,50	70.098	47.642	37.925	30.372	49.350	5	630	9.500	74	21	44
MSO63 514	220,90	84,75	94.252	64.000	50.235	40.082	46.930	5	630	9.500	74	20	42

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
MSO63 212	8X1050	8X1050	2X1050	242	115	62	-	203	-	110	108	55	51	41
MSO63 214	10X1050	10X1050	2X1050	242	115	71	-	203	-	110	108	63	59	49
MSO63 312	8X1550	8X1550	2X1550	342	115	62	-	-	303	110	108	55	51	41
MSO63 314	10X1550	10X1550	2X1550	342	115	71	-	-	303	110	108	63	59	49
MSO63 412	8X2050	8X2050	2X2050	442	115	62	-	200	-	110	108	55	51	41
MSO63 414	10X2050	10X2050	2X2050	442	115	71	-	200	-	110	108	63	59	49
MSO63 512	8X2550	8X2550	2X2550	542	115	62	-	-	-	110	108	55	51	41
MSO63 514	10X2550	10X2550	2X2550	542	115	71	-	-	-	110	108	63	59	49





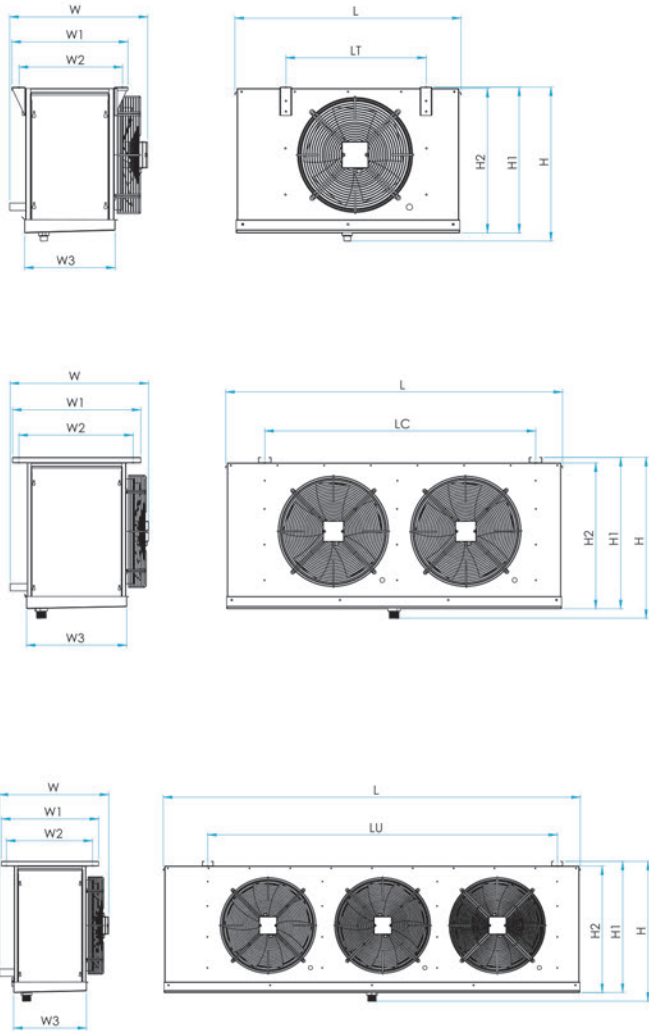
NSS - NSO SERİSİ TEKNİK BİLGİLER

NSS-NSO Series Technical Information

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

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	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Güçü Total Fan Elect Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Ağıs Yönlendiricili With Streamer	
			Te=0°C T0=+10°C	Te=-8°C T0=0°C	Te=-25°C T0=-18°C	Te=-31°C T0=-25°C								(Watt)
NSS30 111	4,73	2,40	2.021	1.310	1.089	874	1.483	1	300	72	41	11	23	
NSS30 112	6,30	3,20	2.596	1.736	1.400	1.117	1.406							
NSS30 114	9,46	4,80	2.947	1.953	1.650	1.349	1.283							
NSS30 211	9,46	4,80	4.041	2.620	2.178	1.748	2.966	2	300	144	44	11	23	
NSS30 212	12,61	6,40	5.192	3.473	2.800	2.233	2.812							
NSS30 214	18,91	9,60	5.894	3.907	3.301	2.699	2.566							
NSS30 311	14,18	7,20	6.062	3.929	3.267	2.623	4.449	3	300	216	44	11	23	
NSS30 312	18,91	9,60	7.787	5.209	4.200	3.350	4.218							
NSS30 314	28,37	14,40	8.842	5.860	4.951	4.048	3.849							
NSS35 111	6,31	3,20	3.416	2.297	1.832	1.465	2.710	1	350	165	44	12	26	
NSS35 112	8,41	4,27	3.762	2.426	2.043	1.645	2.547							
NSS35 114	12,61	6,40	5.219	3.508	2.840	2.271	2.300							
NSS40 111	6,31	3,20	3.752	2.513	1.960	1.564	3.265	1	400	219	51	13	27	
NSS40 112	8,41	4,27	4.242	2.714	2.280	1.822	3.047							
NSS40 114	12,61	6,40	5.774	3.916	3.127	2.499	2.706							
NSS35 211	12,61	6,40	6.831	4.594	3.663	2.930	5.420	2	350	330	47	12	26	
NSS35 212	16,82	8,53	7.524	4.851	4.087	3.291	5.094							
NSS35 214	25,22	12,80	10.439	7.015	5.681	4.542	4.600							
NSS40 211	12,61	6,40	7.504	5.025	3.920	3.128	6.530	2	400	438	54	13	27	
NSS40 212	16,82	8,53	8.484	5.427	4.560	3.643	6.094							
NSS40 214	25,22	12,80	11.547	7.833	6.255	4.998	5.412							

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
NSS30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
NSS30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
NSS30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
NSS30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
NSS30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
NSS30 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
NSS30 311	3x750	3x750	2x750	166	51	51	-	-	138	46	46	39	36	29
NSS30 312	4x750	4x750	2x750	166	51	51	-	-	138	46	46	39	36	29
NSS30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36
NSS35 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSS35 112	5x300	5x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSS35 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41
NSS40 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSS40 112	5x300	5x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSS40 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41
NSS35 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSS35 212	5x550	5x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSS35 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41
NSS40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSS40 212	5x550	5x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSS40 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41



NSS SERISI

NSS 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				Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fanlar Fans 230V AC 1300-1400 d/d-rpm			Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4			Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	See Basıncı Ses Yüzesi Sound Pressure Level	Yönlendirilmez Without Streamer	Akış Yönlendiricili With Streamer
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C			(Ø mm)	(Watt)	(dB(A))	(m)	(m)
(m²)	(dm³)	(Watt)	(Watt)	(Watt)	(Watt)	(m³/h)	(n)	(Ø mm)	(Watt)	(dB(A))	(m)	(m)	
NSS35 311	18,92	9,60	10.247	6.890	5.495	4.396	8.130	3	350	495	49	12	26
NSS35 312	25,22	12,80	11.286	7.277	6.130	4.936	7.641		350	495	49	11	25
NSS35 314	37,84	19,20	15.658	10.523	8.521	6.813	6.900		350	495	49	10	22
NSS40 311	18,92	9,60	11.256	7.538	5.881	4.693	9.795	3	400	876	56	13	27
NSS40 312	25,22	12,80	12.726	8.141	6.840	5.465	9.141		400	876	56	12	26
NSS40 314	37,84	19,20	17.321	11.749	9.382	7.496	8.118		400	876	56	11	23
NSS45 211	21,87	11,13	11.836	7.980	6.487	5.178	9.670	2	450	606	50	15	32
NSS45 212	29,16	14,84	14.698	9.944	8.085	6.479	9.242		450	606	50	14	31
NSS45 214	43,73	22,27	19.209	13.049	10.431	8.400	8.520		450	606	50	13	28
NSS45 215	58,31	29,69	21.941	14.964	12.069	9.752	7.930	2	450	606	50	12	26
NSS50 211	21,87	11,13	14.177	9.633	7.831	6.306	14.170		500	1.520	59	20	42
NSS50 212	29,16	14,84	17.414	11.840	9.613	7.752	13.080		500	1.520	59	18	39
NSS50 214	43,73	22,27	22.572	15.345	12.464	10.039	11.450	2	500	1.520	59	16	34
NSS50 215	58,31	29,69	26.195	17.810	14.464	11.652	10.460		500	1.520	59	15	31
NSS45 312	43,73	22,27	22.046	14.915	12.128	9.718	13.863		3	450	909	52	14
NSS45 314	65,60	33,40	28.813	19.574	15.646	12.600	12.780	450		909	52	13	28
NSS45 315	87,47	44,53	32.912	22.446	18.104	14.627	11.895	450		909	52	11	26
NSS50 312	43,73	22,27	26.126	17.761	14.424	11.623	19.630	3	500	2.280	61	18	39
NSS50 314	65,60	33,40	33.868	23.018	18.701	15.068	17.170		500	2.280	61	16	34
NSS50 315	87,47	44,53	39.303	26.720	21.701	17.483	15.700		500	2.280	61	15	31
NSS45 412	58,31	29,69	29.395	19.887	16.171	12.957	18.484	4	450	1.212	53	14	31
NSS45 414	87,47	44,53	38.418	26.098	20.861	16.800	17.040		450	1.212	53	13	28
NSS50 412	58,31	29,69	34.838	23.681	19.236	15.503	26.170		500	3.040	62	18	39
NSS50 414	87,47	44,53	45.154	30.690	24.938	20.087	22.900	500	3.040	62	16	34	

Model Model	Defrost Isitici Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D Tray											
(nxW)	(nxW)	(nxW)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)
NSS35 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
NSS35 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	49	45	34
NSS35 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	55	51	41
NSS40 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
NSS40 312	5x800	5x800	2x800	186	61	56	-	-	153	58	55	49	45	34
NSS40 314	7x800	7x800	2x800	186	61	62	-	-	153	58	55	55	51	41
NSS45 211	5x700	5x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NSS45 212	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NSS45 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
NSS45 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	4,9
NSS50 211	5x700	5x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NSS50 212	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NSS50 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
NSS50 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
NSS45 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
NSS45 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
NSS45 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
NSS50 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
NSS50 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
NSS50 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
NSS45 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
NSS45 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
NSS50 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
NSS50 414	8X1350	8X1350	2X1350	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

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	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C							
NSO30 111	3,92	2,40	1.733	1.123	939	757	1.510	1	300	72	41	11	23
NSO30 112	5,22	3,20	2.318	1.523	1.238	990	1.439						
NSO30 114	7,84	4,80	2.643	1.745	1.479	1.209	1.321						
NSO30 211	7,84	4,80	3.465	2.245	1.877	1.515	3.020	2	300	144	44	11	23
NSO30 212	10,45	6,40	4.635	3.045	2.475	1.980	2.878						
NSO30 214	15,67	9,60	5.287	3.491	2.958	2.418	2.642						
NSO30 311	11,75	7,20	5.198	3.368	2.816	2.272	4.530	3	300	216	46	11	23
NSO30 312	15,67	9,60	6.953	4.568	3.713	2.970	4.317						
NSO30 314	23,51	14,40	7.930	5.236	4.437	3.626	3.963						
NSO35 111	5,23	3,20	3.000	2.020	1.604	1.287	2.750	1	350	165	44	12	26
NSO35 112	6,97	4,27	3.252	2.095	1.782	1.436	2.612						
NSO35 114	10,45	6,40	4.752	3.144	2.564	2.055	2.376						
NSO40 111	5,23	3,20	3.317	2.225	1.757	1.401	3.350	1	400	219	51	13	28
NSO40 112	6,97	4,27	3.663	2.339	1.976	1.587	3.136						
NSO40 114	10,45	6,40	5.274	3.530	2.851	2.271	2.820						
NSO35 211	10,45	6,40	5.999	4.039	3.208	2.574	5.500	2	350	330	47	12	26
NSO35 212	13,93	8,53	6.504	4.190	3.564	2.871	5.224						
NSO35 214	20,90	12,80	9.504	6.288	5.128	4.110	4.752						
NSO40 211	10,45	6,40	6.633	4.449	3.515	2.802	6.700	2	400	438	54	13	28
NSO40 212	13,93	8,53	7.326	4.679	3.952	3.174	6.272						
NSO40 214	20,90	12,80	10.547	7.061	5.702	4.542	5.640						

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
NSO30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
NSO30 112	4x250	4x250	2x250	77	51	47	48	-	-	46	46	39	36	29
NSO30 114	6x250	6x250	2x250	77	51	57	48	-	-	46	46	46	43	36
NSO30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
NSO30 212	4x500	4x500	2x500	121	51	47	-	93	-	46	46	39	36	29
NSO30 214	6x500	6x500	2x500	121	51	57	-	93	-	46	46	46	43	36
NSO30 311	3x750	3x750	2x750	166	51	51	-	-	138	46	46	39	36	29
NSO30 312	4x750	4x750	2x750	166	51	51	-	-	138	46	46	39	36	29
NSO30 314	6x750	6x750	2x750	166	51	57	-	-	138	46	46	46	43	36
NSO35 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSO35 112	5x300	5x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSO35 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41
NSO40 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSO40 112	5x300	5x300	2x300	86	61	52	53	-	-	55	55	44	41	34
NSO40 114	7x300	7x300	2x300	86	61	62	53	-	-	55	55	51	48	41
NSO35 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSO35 212	5x550	5x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSO35 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41
NSO40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSO40 212	5x550	5x550	2x550	136	61	52	-	103	-	55	55	44	41	34
NSO40 214	7x550	7x550	2x550	136	61	62	-	103	-	55	55	51	48	41



NSO SERİSİ

NSO SERIES

Bakır Boru / Copper Tube 5/8"

Kalıp / Geometry 40 mm x 35 mm

Hatve / Fin Spacing 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fanlar Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4			Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basıncı Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C			(Watt)	(Watt)	(Watt)	(Watt)	(m)	(m)
NSO35 311	15,68	9,60	8.999	6.059	4.811	3.861	8.250	3	350	495	49	12	26	
NSO35 312	20,90	12,80	9.756	6.285	5.346	4.307	7.836		350	495	49	12	25	
NSO35 314	31,35	19,20	14.256	9.433	7.692	6.166	7.128		350	495	49	11	23	
NSO40 311	15,68	9,60	9.950	6.674	5.272	4.203	10.050		400	876	56	13	28	
NSO40 312	20,90	12,80	10.989	7.018	5.928	4.761	9.408		400	876	56	12	26	
NSO40 314	31,35	19,20	15.821	10.591	8.554	6.813	8.460		400	876	56	11	24	
NSO45 211	18,11	11,13	10.378	6.863	5.618	4.484	9.825	2	450	606	50	15	32	
NSO45 212	24,15	14,84	13.033	8.666	7.095	5.680	9.423		450	606	50	15	31	
NSO45 214	36,22	22,27	17.426	11.831	9.470	7.602	8.742		450	606	50	13	29	
NSO45 215	48,29	29,69	20.280	13.657	11.125	8.960	8.176		450	606	50	13	27	
NSO50 211	18,11	11,13	12.969	8.722	6.920	5.554	14.530		500	1.520	59	20	43	
NSO50 212	24,15	14,84	16.226	10.920	8.663	6.960	13.530		500	1.520	59	19	40	
NSO50 214	36,22	22,27	21.216	14.266	11.326	9.098	11.930	500	1.520	59	17	35		
NSO50 215	48,29	29,69	24.651	16.583	13.157	10.563	10.700	500	1.520	59	15	32		

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D Tray											
NSO35 311	4x800	4x800	2x800	186	61	56	-	153	58	55	49	45	34	
NSO35 312	5x800	5x800	2x800	186	61	56	-	153	58	55	49	45	34	
NSO35 314	7x800	7x800	2x800	186	61	62	-	153	58	55	55	51	41	
NSO40 311	4x800	4x800	2x800	186	61	56	-	153	58	55	49	45	34	
NSO40 312	5x800	5x800	2x800	186	61	56	-	153	58	55	49	45	34	
NSO40 314	7x800	7x800	2x800	186	61	62	-	153	58	55	55	51	41	
NSO45 211	5x700	5x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NSO45 212	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NSO45 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
NSO45 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	4,9
NSO50 211	5x700	5x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NSO50 212	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
NSO50 214	8x700	8x700	2x700	166	80	62	-	133	-	75	72	55	48	41
NSO50 215	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49



Bakır Boru / Copper Tube

5/8"

Kalıp / Geometry

40 mm x 35 mm

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	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akis Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)
NSO45 312	36,22	22,27	19.550	13.000	10.643	8.519	14.135	3		450	909	52	15	31
NSO45 314	54,33	33,40	26.139	17.746	14.206	11.403	13.113			450	909	52	13	29
NSO45 315	72,44	44,53	30.420	20.486	16.687	13.439	12.264			450	909	52	13	27
NSO50 312	36,22	22,27	24.344	16.375	12.999	10.435	20.300			500	2.280	61	19	40
NSO50 314	54,33	33,40	31.819	21.404	16.988	13.642	17.890			500	2.280	61	17	35
NSO50 315	72,44	44,53	36.977	24.869	19.741	15.850	16.060			500	2.280	61	15	32
NSO45 412	48,29	29,69	26.067	17.333	14.191	11.359	18.846	4		450	1.212	53	15	31
NSO45 414	72,44	44,53	34.852	23.661	18.941	15.204	17.484			450	1.212	53	13	29
NSO50 412	48,29	29,69	32.462	21.839	17.335	13.919	27.070			500	3.040	62	19	40
NSO50 414	72,44	44,53	42.431	28.542	22.651	18.196	23.860			500	3.040	62	17	35

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
NSO45 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
NSO45 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
NSO45 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
NSO50 312	6x1050	6x1050	2x1050	237	80	56	-	-	198	75	72	49	45	34
NSO50 314	8x1050	8x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
NSO50 315	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
NSO45 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
NSO45 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
NSO50 412	6X1350	6X1350	2X1350	302	80	56	-	130	-	75	72	49	45	34
NSO50 414	8X1350	8X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41



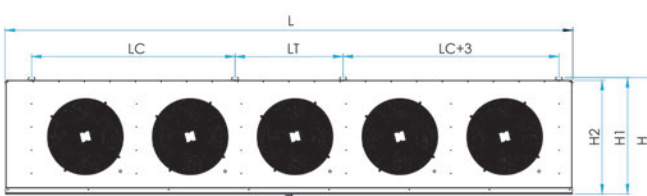
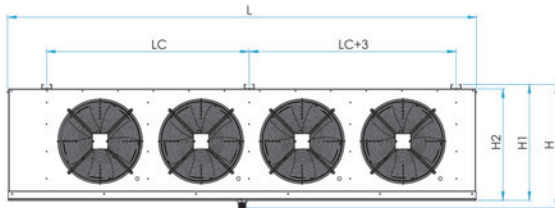
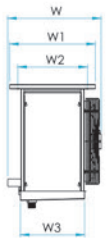
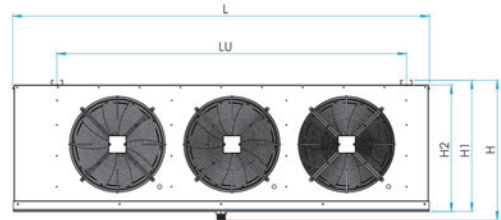
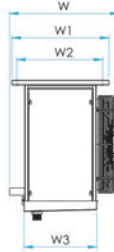
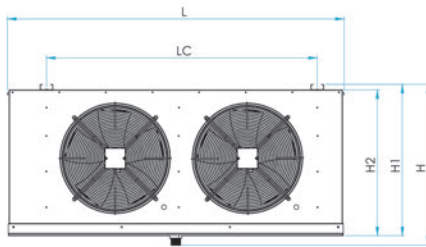
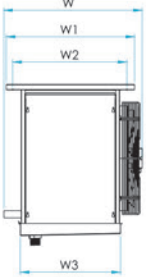
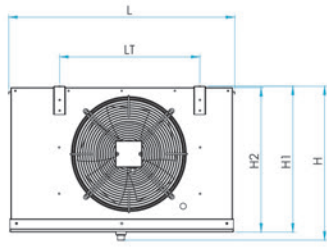
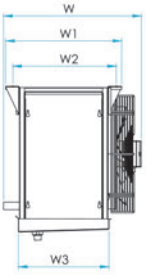
OSS-OSO SERİSİ TEKNİK BİLGİLER

OSS-OSO Series Technical Information

Bakır Boru / Copper Tube	: 1/2"
Kalıp / Geometry	: 55 mm x 48 mm
Hatve / Fin Spacing	: 8 mm - 10 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

55 mm x 48 mm

Hatve / Fin Spacing

8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Hava Debisi Air Flow	Fanlar Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw			Defrost Isticilar Electric Defrost Heater		
			SC1	SC2	SC3	SC4		Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer	B1		B2		
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)	(Watt)	(Watt)	(Watt)	(m)
(m ²)	(dm ³)	(Watt)	(Watt)	(Watt)	(Watt)	(m ³ /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)	(nxW)	(nxW)	(nxW)			
OSS30 111	6,27	1,08	1.823	1.236	1.007	813	1.554	1	300	72	41	11	24	3x250	3x250	2x250		
OSS30 112	8,36	1,44	2.316	1.568	1.225	990	1.494	1	300	72	41	11	23	4x250	4x250	2x250		
OSS30 211	12,53	2,16	3.646	2.472	2.015	1.627	3.108	2	300	144	44	11	24	3x500	3x500	2x500		
OSS30 212	16,71	2,88	4.631	3.136	2.450	1.980	2.988	2	300	144	44	11	23	4x500	4x500	2x500		
OSS30 311	18,80	3,24	5.468	3.707	3.022	2.440	4.662	3	300	216	46	11	24	3x750	3x750	2x750		
OSS30 312	25,07	4,32	6.947	4.704	3.675	2.969	4.482	3	300	216	46	11	23	4x750	4x750	2x750		
OSS35 111	8,95	1,55	2.772	1.825	1.515	1.221	2.879	1	350	165	44	13	28	4x300	4x300	2x300		
OSS35 112	11,94	2,07	3.597	2.450	2.029	1.637	2.770		350	165	44	12	27	5x300	5x300	2x300		
OSS35 114	17,91	3,10	4.799	3.283	2.693	2.161	2.573		350	165	44	12	25	7x300	7x300	2x300		
OSS40 111	8,95	1,55	3.004	2.011	1.666	1.332	3.565		400	219	51	14	30	4x300	4x300	2x300		
OSS40 112	11,94	2,07	3.936	2.663	2.177	1.773	3.382	400	219	51	13	28	5x300	5x300	2x300			
OSS40 114	17,91	3,10	5.233	3.565	2.933	2.368	3.082	400	219	51	12	26	7x300	7x300	2x300			
OSS35 211	17,91	3,10	5.545	3.650	3.030	2.442	5.758	2	350	330	47	13	28	4x550	4x550	2x550		
OSS35 212	23,87	4,13	7.193	4.900	4.057	3.273	5.540		350	330	47	12	27	5x550	5x550	2x550		
OSS35 214	35,81	6,20	9.598	6.566	5.386	4.322	5.146		350	330	47	12	25	7x550	7x550	2x550		
OSS40 211	17,91	3,10	6.007	4.022	3.332	2.664	7.130		400	438	54	14	30	4x550	4x550	2x550		
OSS40 212	23,87	4,13	7.871	5.325	4.353	3.546	6.764	400	438	54	13	28	5x550	5x550	2x550			
OSS40 214	35,81	6,20	10.466	7.130	5.866	4.735	6.164	400	438	54	12	26	7x550	7x550	2x550			

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)
OSS30 111	77	51	51	48	-	-	46	46	44	41	34
OSS30 112	77	51	57	48	-	-	46	46	46	43	36
OSS30 211	121	51	42	-	93	-	46	46	39	36	29
OSS30 212	121	51	52	-	93	-	46	46	46	43	36
OSS30 311	166	51	46	-	-	138	46	46	39	36	29
OSS30 312	166	51	57	-	-	138	46	46	46	43	36
OSS35 111	86	61	52	53	-	-	55	55	44	41	34
OSS35 112	86	61	62	53	-	-	55	55	51	48	41
OSS35 114	86	61	71	53	-	-	55	55	59	56	49
OSS40 111	86	61	52	53	-	-	55	55	44	41	34
OSS40 112	86	61	62	53	-	-	55	55	51	48	41
OSS40 114	86	61	71	53	-	-	55	55	59	56	49
OSS35 211	136	61	52	-	103	-	55	55	44	41	34
OSS35 212	136	61	62	-	103	-	55	55	51	48	41
OSS35 214	136	61	71	-	103	-	55	55	59	56	49
OSS40 211	136	61	52	-	103	-	55	55	44	41	34
OSS40 212	136	61	62	-	103	-	55	55	51	48	41
OSS40 214	136	61	71	-	103	-	55	55	59	56	49



OSS SERISI

OSS SERIES

Bakır Boru / Copper Tube 1/2"

Kalıp / Geometry 55 mm x 48 mm

Hatve / Fin Spacing 8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Hava Debisi Air Flow	Fanlar Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw			Defrost Isıtıcılar Electric Defrost Heater		
			SC1	SC2	SC3	SC4		Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elec. Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Ağırlık Yönlendiricili With Streamer	B1		B2		
			Te= 0°C T0= +10°C	Te= 2°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)	(Watt)	(Watt)	(Watt)	(m³/m)
OSS35 311	26,86	4,65	8.317	5.474	4.545	3.663	8.637	3		350	495	49	13	28	4x800	4x800	2x800	
OSS35 312	35,81	6,20	10.790	7.350	6.086	4.910	8.310			350	495	49	12	27	5x800	5x800	2x800	
OSS35 314	53,72	9,30	14.397	9.849	8.079	6.483	7.719			350	495	49	12	25	7x800	7x800	2x800	
OSS40 311	26,86	4,65	9.011	6.033	4.998	3.995	10.695			400	657	56	14	30	4x800	4x800	2x800	
OSS40 312	35,81	6,20	11.807	7.988	6.530	5.318	10.146			400	657	56	13	28	5x800	5x800	2x800	
OSS40 314	53,72	9,30	15.700	10.696	8.799	7.103	9.246			400	657	56	12	26	7x800	7x800	2x800	
OSS45 211	31,04	5,30	9.918	6.762	5.586	4.508	10.150	2		450	606	50	16	34	6x700	6x700	2x700	
OSS45 212	41,38	7,07	12.973	8.791	7.122	5.792	9.882			450	606	50	15	33	7x700	7x700	2x700	
OSS45 214	62,07	10,60	17.317	11.805	9.683	7.918	9.316			450	606	50	14	31	9x700	9x700	2x700	
OSS50 211	31,04	5,30	11.505	7.840	6.488	5.233	15.400			500	1.520	59	21	46	6x700	6x700	2x700	
OSS50 212	41,38	7,07	14.778	10.074	8.330	6.713	14.660			500	1.520	59	20	44	7x700	7x700	2x700	
OSS50 214	62,07	10,60	20.012	13.642	11.280	9.094	13.260			500	1.520	59	18	39	9x700	9x700	2x700	
OSS45 312	62,07	10,60	19.460	13.186	10.682	8.688	14.823	3		450	909	52	15	33	7x1050	7x1050	2x1050	
OSS45 314	93,11	15,90	25.975	17.708	14.525	11.878	13.974			450	909	52	14	31	9x1050	9x1050	2x1050	
OSS50 312	62,07	10,60	22.168	15.112	12.495	10.074	21.990			500	2.280	61	20	44	7x1050	7x1050	2x1050	
OSS50 314	93,11	15,90	30.017	20.462	16.925	13.651	19.900			500	2.280	61	18	39	9x1050	9x1050	2x1050	
OSS45 412	82,76	14,13	25.946	17.581	14.243	11.584	19.764	4		450	1.212	53	15	33	7X1350	7X1350	2X1350	
OSS45 414	124,14	21,20	34.633	23.610	19.367	15.837	18.632			450	1.212	53	14	31	9X1350	9X1350	2X1350	
OSS50 412	82,76	14,13	29.557	20.149	16.660	13.436	29.330			500	3.040	62	20	44	7X1350	7X1350	2X1350	
OSS50 414	124,14	21,20	40.033	27.293	22.569	18.199	26.530			500	3.040	62	18	39	9X1350	9X1350	2X1350	

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)
OSS35 311	186	61	56	-	-	153	58	55	49	45	34
OSS35 312	186	61	62	-	-	153	58	55	55	51	41
OSS35 314	186	61	71	-	-	153	58	55	63	59	49
OSS40 311	186	61	56	-	-	153	58	55	49	45	34
OSS40 312	186	61	62	-	-	153	58	55	55	51	41
OSS40 314	186	61	71	-	-	153	58	55	63	59	49
OSS45 211	166	80	52	-	133	-	75	72	49	41	34
OSS45 212	166	80	62	-	133	-	75	72	55	48	41
OSS45 214	166	80	71	-	133	-	75	72	63	56	49
OSS50 211	166	80	52	-	133	-	75	72	49	41	34
OSS50 212	166	80	62	-	133	-	75	72	55	48	41
OSS50 214	166	80	71	-	133	-	75	72	63	56	49
OSS45 312	237	80	62	-	-	198	75	72	55	51	41
OSS45 314	237	80	71	-	-	198	75	72	63	59	49
OSS50 312	237	80	62	-	-	198	75	72	55	51	41
OSS50 314	237	80	71	-	-	198	75	72	63	59	49
OSS45 412	302	80	62	-	130	-	75	72	55	51	41
OSS45 414	302	80	71	-	130	-	75	72	63	59	49
OSS50 412	302	80	62	-	130	-	75	72	55	51	41
OSS50 414	302	80	71	-	130	-	75	72	63	59	49



Bakır Boru / Copper Tube

1/2"

Kalıp / Geometry

55 mm x 48 mm

Hatve / Fin Spacing

8 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Fanlar Fans 230V AC 880 d/d-rpm						Üfleme Mesafesi Air Throw		Defrost Ihticilar Electric Defrost Heater		
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Electric Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer	B1		B2	
			Te= 0°C T0= +10°C	Te= -5°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)	(Watt)	(Watt)	(Watt)
(m ²)	(dm ³)	(Watt)	(Watt)	(Watt)	(Watt)	(m ³ /h)	(n)	(Ø mm)	(Watt)	dB(A)	(m)	(m)	(nxW)	(nxW)	(nxW)		
OSS63 212	95,49	16,30	28.555	19.339	15.469	12.591	19.817	2	630	3.800	70	21	44	8X1050	8X1050	2X1050	
OSS63 214	143,23	24,40	38.311	25.924	20.112	16.214	18.888		630	3.800	70	20	42	10X1050	10X1050	2X1050	
OSS63 312	143,24	24,45	42.833	29.009	23.204	18.887	29.726	3	630	5.700	72	21	44	8X1550	8X1550	2X1550	
OSS63 314	214,85	36,60	57.467	38.886	30.167	24.321	28.332		630	5.700	72	20	42	10X1550	10X1550	2X1550	
OSS63 412	190,98	32,60	57.110	38.679	30.939	25.182	39.634	4	630	7.600	73	21	44	8X2050	8X2050	2X2050	
OSS63 414	286,46	48,80	76.622	51.848	40.223	32.428	37.776		630	7.600	73	20	42	10X2050	10X2050	2X2050	
OSS63 512	238,73	40,75	71.388	48.348	38.673	31.478	49.543	5	630	9.500	74	21	44	8X2550	8X2550	2X2550	
OSS63 514	358,08	61,00	95.778	64.810	50.279	40.535	47.220		630	9.500	74	20	42	10X2550	10X2550	2X2550	

Model Model	Boyutlar Dimensions										
	L	H	W	L _r	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)
OSS63 212	242	115	71	-	203	-	110	108	63	59	49
OSS63 214	242	115	81	-	203	-	110	108	73	68	59
OSS63 312	342	115	71	-	-	303	110	108	63	59	49
OSS63 314	342	115	81	-	-	303	110	108	73	68	59
OSS63 412	442	115	71	-	200	-	110	108	63	59	49
OSS63 414	442	115	81	-	200	-	110	108	73	68	59
OSS63 512	542	115	71	-	-	-	110	108	63	59	49
OSS63 514	542	115	81	-	-	-	110	108	73	68	59



OSO SERISI

OSO SERIES

Bakır Boru / Copper Tube 1/2"

Kalıp / Geometry 55 mm x 48 mm

Hatve / Fin Spacing 10 mm

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Hava Debisi Air Flow	Fanlar Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4		Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Güçü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendiricisiz Without Streamer	Akış Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(m)
OSO30 111	5,09	1,10	1.569	1.063	860	688	1.578	1	300	72	41	11	24	
OSO30 112	6,78	1,47	2.025	1.370	1.092	882	1.521	1	300	72	41	11	23	
OSO30 211	10,18	2,20	3.138	2.127	1.721	1.376	3.156	2	300	144	44	11	24	
OSO30 212	13,57	2,93	4.049	2.740	2.183	1.764	3.042	2	300	144	44	11	23	
OSO30 311	15,26	3,30	4.707	3.190	2.581	2.064	4.734	3	300	216	46	11	24	
OSO30 312	20,35	4,40	6.074	4.110	3.275	2.646	4.563	3	300	216	46	11	23	
OSO35 111	7,27	1,53	2.326	1.499	1.256	1.016	2.921	1	350	165	44	13	28	
OSO35 112	9,69	2,04	3.156	2.127	1.744	1.392	2.800		350	165	44	13	27	
OSO35 114	14,54	3,07	4.233	2.826	2.325	1.875	2.637		350	165	44	12	25	
OSO40 111	7,27	1,53	2.572	1.645	1.376	1.107	3.628		400	219	51	14	31	
OSO40 112	9,69	2,04	2.433	2.310	1.898	1.512	3.464	2	400	219	51	14	29	
OSO40 114	14,54	3,07	4.614	3.123	2.553	2.048	3.177		400	219	51	12	27	
OSO35 211	14,54	3,07	4.651	2.999	2.513	2.033	5.842		350	330	47	13	28	
OSO35 212	19,39	4,09	6.311	4.253	3.489	2.783	5.600		350	330	47	13	27	
OSO35 214	29,08	6,13	8.465	5.653	4.649	3.749	5.274	2	350	330	47	12	25	
OSO40 211	14,54	3,07	5.143	3.291	2.752	2.215	7.256		400	438	54	14	31	
OSO40 212	19,39	4,09	4.867	4.620	3.797	3.024	6.928		400	438	54	14	29	
OSO40 214	29,08	6,13	9.228	6.247	5.106	4.096	6.354		400	438	54	12	27	

Model Model	Defrost Isitıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D. Tray											
OSO30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
OSO30 112	4x250	4x250	2x250	77	51	57	48	-	-	46	46	46	43	36
OSO30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
OSO30 212	4x500	4x500	2x500	121	51	57	-	93	-	46	46	46	43	36
OSO30 311	3x750	3x750	2x750	166	51	51	-	-	138	46	46	39	36	29
OSO30 312	4x750	4x750	2x750	166	51	57	-	-	138	46	46	46	43	36
OSO35 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
OSO35 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
OSO35 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
OSO40 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
OSO40 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
OSO40 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
OSO35 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
OSO35 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
OSO35 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49
OSO40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
OSO40 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
OSO40 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49



Bakır Boru / Copper Tube

1/2"

Kalıp / Geometry

55 mm x 48 mm

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	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Güçü Total Fan Elec.t Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)
OSO35 311	21,81	4,60	6.977	4.498	3.769	3.049	8.763	3		350	495	49	13	28
OSO35 312	29,08	6,13	9.467	6.380	5.233	4.175	8.400			350	495	49	13	27
OSO35 314	43,62	9,20	12.698	8.479	6.974	5.624	7.911			350	495	49	12	25
OSO40 311	21,81	4,60	7.715	4.936	4.128	3.322	10.884	3		400	657	56	14	31
OSO40 312	29,08	6,13	7.300	6.930	5.695	4.536	10.392			400	657	56	14	29
OSO40 314	43,62	9,20	13.842	9.370	7.659	6.145	9.531			400	657	56	12	27
OSO45 211	25,20	5,27	8.369	5.664	4.626	3.685	10.230	2		450	606	50	16	34
OSO45 212	33,60	7,02	11.143	7.536	6.164	4.910	10.030			450	606	50	15	33
OSO45 214	50,40	10,53	14.925	10.094	8.252	6.576	9.630			450	606	50	15	32
OSO50 211	25,20	5,27	10.094	6.831	5.576	4.449	15.690	2		500	1.520	59	22	47
OSO50 212	33,60	7,02	13.122	8.879	7.252	5.782	14.980			500	1.520	59	21	45
OSO50 214	50,40	10,53	17.865	12.083	9.878	7.869	13.740			500	1.520	59	19	41
OSO45 312	50,40	10,53	16.714	11.304	9.246	7.365	15.045	3		450	909	52	15	33
OSO45 314	75,60	15,80	22.388	15.141	12.377	9.864	14.445			450	909	52	15	32
OSO50 312	50,40	10,53	19.678	13.318	10.878	8.673	22.470			500	2.280	61	21	45
OSO50 314	75,60	15,80	26.803	18.130	14.818	11.809	20.620	3		500	2.280	61	19	41
OSO45 412	67,20	14,04	22.285	15.072	12.328	9.820	20.060			450	1.212	53	15	33
OSO45 414	100,81	21,07	29.851	20.188	16.503	13.152	19.260			450	1.212	53	15	32
OSO50 412	67,20	14,04	26.244	17.758	14.504	11.564	29.970	4		500	3.040	62	21	45
OSO50 414	100,81	21,07	35.741	24.177	19.757	15.749	27.490			500	3.040	62	19	41

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D. Tray											
OSO35 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
OSO35 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
OSO35 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
OSO40 311	4x800	4x800	2x800	186	61	56	-	-	153	58	55	49	45	34
OSO40 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
OSO40 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
OSO45 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
OSO45 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
OSO45 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
OSO50 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
OSO50 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
OSO50 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
OSO45 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
OSO45 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
OSO50 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
OSO50 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
OSO45 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
OSO45 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49
OSO50 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
OSO50 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49



OSO SERISI OSO SERIES

Bakır Boru / Copper Tube 1/2"

Kalıp / Geometry 55 mm x 48 mm

Hatve / Fin Spacing 10 mm

Model Model	Yüzey Area (m ²)	Boru Hacmi Tube Volume (dm ³)	Kapasite Capacity				Fanlar Fans 230V AC 880 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow (m ³ /h)	Fan Sayısı Number of Fan (n)	Fan Çapı Fan Diameter (Ø mm)	Toplam Fan Gücü Total Fan Elec.t Power (Watt)	Ses Basınç Seviyesi Sound Pressure Level (dB(A))	Yönlendiricisiz Without Streamer (m)	Akış Yönlendiricili With Streamer (m)
			Te=0°C T0=+10°C (Watt)	Te=-8°C T0=0°C (Watt)	Te=-25°C T0=-18°C (Watt)	Te=-31°C T0=-25°C (Watt)							
OSO63 212	77,54	16,30	24.766	16.776	13.604	11.065	20.024	2	630	3.800	70	21	45
OSO63 214	116,31	24,40	34.016	23.026	18.098	14.645	19.198	2	630	3.800	70	20	43
OSO63 312	116,31	24,45	37.148	25.163	20.407	16.598	30.036	3	630	5.700	72	21	45
OSO63 314	174,47	36,60	51.024	34.539	27.146	21.968	28.797	3	630	5.700	72	20	43
OSO63 412	155,08	32,60	49.531	33.551	27.209	22.130	40.048	4	630	7.600	73	21	45
OSO63 414	232,62	48,80	68.032	46.052	36.195	29.290	38.396	4	630	7.600	73	20	43
OSO63 512	193,85	40,75	61.914	41.939	34.011	27.663	50.060	5	630	9.500	74	21	45
OSO63 514	290,78	61,00	85.040	57.565	45.244	36.613	47.995	5	630	9.500	74	20	43

Model Model	Defrost Isitıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil (nxW)	Batarya Coil (nxW)	Tava D.Tray (nxW)											
OSO63 212	8X1050	8X1050	2X1050	242	115	71	-	203	-	110	108	63	59	49
OSO63 214	10X1050	10X1050	2X1050	242	115	81	-	203	-	110	108	73	68	59
OSO63 312	8X1550	8X1550	2X1550	342	115	71	-	-	303	110	108	63	59	49
OSO63 314	10X1550	10X1550	2X1550	342	115	81	-	-	303	110	108	73	68	59
OSO63 412	8X2050	8X2050	2X2050	442	115	71	-	200	-	110	108	63	59	49
OSO63 414	10X2050	10X2050	2X2050	442	115	81	-	200	-	110	108	73	68	59
OSO63 512	8X2550	8X2550	2X2550	542	115	71	-	-	-	110	108	63	59	49
OSO63 514	10X2550	10X2550	2X2550	542	115	81	-	-	-	110	108	73	68	59





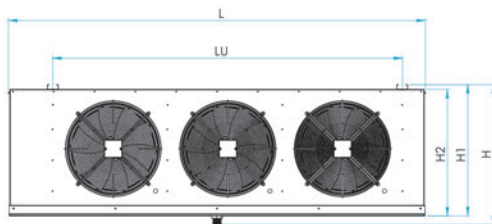
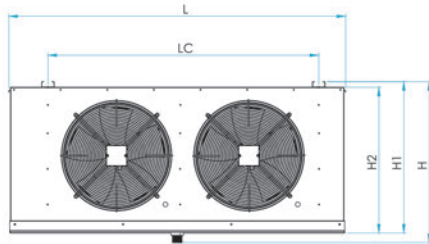
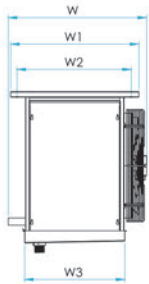
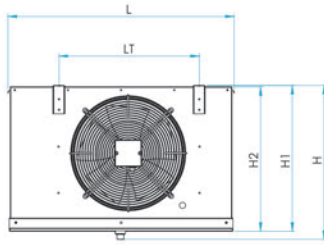
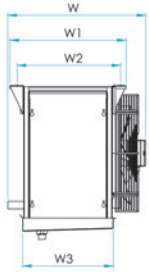
PSS-PSO SERİSİ TEKNİK BİLGİLER

PSS-PSO Series Technical Information

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

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	SC2	SC3	SC4	Hava Debisi Air Flow	Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)
PSS30 111	6,24	1,70	2.081	1.374	1.124	907	1.523	1	300	72	41	11	23	
PSS30 112	8,32	2,27	2.631	1.780	1.417	1.134	1.455	1	300	72	41	10	22	
PSS30 211	12,48	3,40	4.161	2.748	2.248	1.815	3.046	2	300	144	44	11	23	
PSS30 212	16,64	4,53	5.263	3.559	2.834	2.268	2.910	2	300	144	44	10	22	
PSS30 311	18,72	5,10	6.242	4.122	3.372	2.722	4.569	3	300	216	46	11	23	
PSS30 312	24,96	6,80	7.894	5.339	4.251	3.402	4.365	3	300	216	46	10	22	
PSS35 111	8,92	2,40	3.361	2.264	1.852	1.509	2.810	1	350	165	44	13	27	
PSS35 112	11,89	3,20	4.129	2.724	2.241	1.813	2.702		350	165	44	12	26	
PSS35 114	17,83	4,80	5.563	3.753	2.991	2.403	2.490		350	165	44	11	24	
PSS40 111	8,92	2,40	3.812	2.558	2.097	1.705	3.476		400	219	51	14	29	
PSS40 112	11,89	3,20	4.582	3.011	2.466	1.988	3.278	400	219	51	13	28		
PSS40 114	17,83	4,80	6.119	4.161	3.273	2.617	2.968	400	219	51	12	25		
PSS35 211	17,83	4,80	6.723	4.528	3.704	3.018	5.620	2	350	330	47	13	27	
PSS35 212	23,77	6,40	8.257	5.449	4.483	3.626	5.404		350	330	47	12	26	
PSS35 214	35,66	9,60	11.127	7.507	5.982	4.806	4.980		350	330	47	11	24	
PSS40 211	17,83	4,80	7.624	5.116	4.194	3.410	6.952		400	438	54	14	29	
PSS40 212	23,77	6,40	9.163	6.021	4.931	3.977	6.556	400	438	54	13	28		
PSS40 214	35,66	9,60	12.238	8.322	6.546	5.233	5.936	400	438	54	12	25		

Model Model	Defrost Isıtıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D. Tray											
PSS30 111	3x250	3x250	2x250	77	36	42	48	-	-	46	46	39	36	29
PSS30 112	4x250	4x250	2x250	77	51	57	48	-	-	46	46	46	43	36
PSS30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
PSS30 212	4x500	4x500	2x500	121	51	57	-	93	-	46	46	46	43	36
PSS30 311	3x750	3x750	2x750	166	51	47	-	-	138	46	46	39	36	29
PSS30 312	4x750	4x750	2x750	166	51	57	-	-	138	46	46	46	43	36
PSS35 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
PSS35 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
PSS35 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
PSS40 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
PSS40 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
PSS40 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
PSS35 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
PSS35 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
PSS35 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49
PSS40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
PSS40 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
PSS40 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49



PSS SERİSİ PSS SERIES

Bakır Boru / Copper Tube **5/8"**

Kalıp / Geometry **55 mm x 48 mm**

Hatve / Fin Spacing **8 mm**

Model Model	Yüzey Area	Boru Hacmi Tube Volume	Kapasite Capacity				Hava Debisi Air Flow	Fanlar Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw		
			SC1	SC2	SC3	SC4		Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Güçü Total Fan Elect. Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendiricili With Streamer	
			Te= 0°C T0= +10°C	Te= -8°C T0= 0°C	Te= -25°C T0= -18°C	Te= -31°C T0= -25°C								(Watt)
PSS35 311	26,75	7,20	10.084	6.791	5.557	4.528	8.430	3		350	495	49	13	27
PSS35 312	35,66	9,60	12.386	8.173	6.724	5.439	8.106							
PSS35 314	53,49	14,40	16.690	11.260	8.973	7.209	7.470							
PSS40 311	26,75	7,20	11.437	7.673	6.292	5.116	10.428							
PSS40 312	35,66	9,60	13.745	9.032	7.397	5.965	9.834							
PSS40 314	53,49	14,40	18.357	12.483	9.820	7.850	8.904							
PSS45 211	30,91	8,33	12.074	8.124	6.644	5.410	10.040	2		450	606	50	15	33
PSS45 212	41,21	11,11	14.994	10.045	8.189	6.606	9.694							
PSS45 214	61,82	16,67	19.486	12.985	10.707	8.698	9.078							
PSS50 211	30,91	8,33	14.122	9.496	7.771	6.321	15.020							
PSS50 212	41,21	11,11	17.718	11.917	9.751	7.938	14.220							
PSS50 214	61,82	16,67	23.608	15.876	12.995	10.574	12.680							
PSS45 312	61,82	16,67	22.491	15.068	12.283	9.909	19.388	3		450	909	52	20	43
PSS45 314	92,72	25,00	29.229	19.478	16.061	13.046	18.156							
PSS50 312	61,82	16,67	26.578	17.875	14.631	11.907	21.340							
PSS50 314	92,72	25,00	35.417	23.814	19.502	15.866	19.030							
PSS45 412	82,42	22,22	29.988	20.090	16.378	13.212	19.388							
PSS45 414	123,63	33,33	38.973	25.970	21.415	17.395	18.156							
PSS50 412	82,42	22,22	35.437	23.834	19.512	15.876	28.450	4		500	3.040	62	20	42
PSS50 414	123,63	33,33	47.226	31.752	25.999	21.148	25.370							

Model Model	Defrost Isitıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D. Tray											
PSS35 311	4x800	4x800	2x800	186	61	52	-	-	153	58	55	49	45	34
PSS35 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
PSS35 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
PSS40 311	4x800	4x800	2x800	186	61	52	-	-	153	58	55	49	45	34
PSS40 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
PSS40 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
PSS45 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
PSS45 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
PSS45 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
PSS50 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
PSS50 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
PSS50 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
PSS45 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
PSS45 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
PSS50 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
PSS50 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
PSS45 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
PSS45 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49
PSS50 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
PSS50 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49



Bakır Boru / Copper Tube

5/8"

Kalıp / Geometry

55 mm x 48 mm

Hatve / Fin Spacing

10 mm

Model Model	Yüzeysel Area	Boru Hacmi Tube Volume	Kapasite Capacity				Hava Debisi Air Flow	Fanlar Fans 230V AC 1300-1400 d/d-rpm				Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4		Fan Sayısı Number of Fan	Fan Çapı Fan Diameter	Toplam Fan Gücü Total Fan Elect. Power	Ses Basınç Seviyesi Sound Pressure Level	Yönlendirilsiz Without Streamer	Akış Yönlendirilii With Streamer
			Te=0°C T0=+10°C	Te=-8°C T0=0°C	Te=-25°C T0=-18°C	Te=-31°C T0=-25°C							
PSO30 111	5,09	1,7	1.759	1.162	956	776	1.548	1	300	72	41	11	24
PSO30 112	6,78	2,2	2.316	1.540	1.238	996	1.488	1	300	72	41	11	23
PSO30 211	10,18	3,40	3.518	2.325	1.911	1.552	3.096	2	300	144	44	11	24
PSO30 212	13,56	4,46	4.631	3.079	2.475	1.991	2.976	2	300	144	44	11	23
PSO30 311	15,27	5,10	5.277	3.487	2.867	2.328	4.644	3	300	216	46	11	24
PSO30 312	20,34	6,69	6.947	4.619	3.713	2.987	4.464	3	300	216	46	11	23
PSO35 111	7,27	2,4	3.022	2.041	1.597	1.272	2.871	1	350	165	44	13	28
PSO35 112	9,69	3,2	3.519	2.321	1.919	1.559	2.757		350	165	44	12	27
PSO35 114	14,53	4,8	4.984	3.352	2.682	2.151	2.557		350	165	44	11	25
PSO40 111	7,24	2,4	3.314	2.232	1.735	1.384	3.550		400	219	51	14	30
PSO40 112	9,69	3,2	3.910	2.563	2.111	1.707	3.363	1	400	219	51	13	28
PSO40 114	14,53	4,8	5.477	3.714	2.925	2.345	3.063		400	219	51	12	26
PSO35 211	14,54	4,80	6.045	4.083	3.195	2.544	5.742		350	330	47	13	28
PSO35 212	19,38	6,40	7.038	4.641	3.838	3.118	5.514		350	330	47	12	27
PSO35 214	29,06	9,60	9.969	6.703	5.365	4.302	5.114	2	350	330	47	11	25
PSO40 211	14,48	4,80	6.629	4.465	3.469	2.768	7.100		400	438	54	14	30
PSO40 212	19,38	6,40	7.820	5.125	4.222	3.414	6.726		400	438	54	13	28
PSO40 214	29,06	9,60	10.954	7.428	5.851	4.690	6.126		400	438	54	12	26

Model Model	Defrost Isitıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil	Batarya Coil	Tava D.Tray											
PSO30 111	3x250	3x250	2x250	77	51	47	48	-	-	46	46	39	36	29
PSO30 112	4x250	4x250	2x250	77	51	57	48	-	-	46	46	46	43	36
PSO30 211	3x500	3x500	2x500	121	51	47	-	93	-	46	46	39	36	29
PSO30 212	4x500	4x500	2x500	121	51	57	-	93	-	46	46	46	43	36
PSO30 311	3x750	3x750	2x750	166	51	47	-	-	138	46	46	39	36	29
PSO30 312	4x750	4x750	2x750	166	51	57	-	-	138	46	46	46	43	36
PSO35 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
PSO35 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
PSO35 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
PSO40 111	4x300	4x300	2x300	86	61	52	53	-	-	55	55	44	41	34
PSO40 112	5x300	5x300	2x300	86	61	62	53	-	-	55	55	51	48	41
PSO40 114	7x300	7x300	2x300	86	61	71	53	-	-	55	55	59	56	49
PSO35 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
PSO35 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
PSO35 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49
PSO40 211	4x550	4x550	2x550	136	61	52	-	103	-	55	55	44	41	34
PSO40 212	5x550	5x550	2x550	136	61	62	-	103	-	55	55	51	48	41
PSO40 214	7x550	7x550	2x550	136	61	71	-	103	-	55	55	59	56	49



PSO SERİSİ PSO SERIES

Bakır Boru / Copper Tube 5/8"

Kalıp / Geometry 55 mm x 48 mm

Hatve / Fin Spacing 10 mm

Model Model	Yüzey Area (m ²)	Boru Hacmi Tube Volume (dm ³)	Kapasite Capacity				Fanlar Fans 230V AC 1300-1400 d/d-rpm					Üfleme Mesafesi Air Throw	
			SC1	SC2	SC3	SC4	Hava Debisi Air Flow (m ³ /m)	Fan Sayısı Number of Fan (n)	Fan Çapı Fan Diameter (Ø mm)	Toplam Fan Gücü Total Fan Elect. Power (Watt)	Ses Basıncı Seviyesi Sound Pressure Level (dB(A))	Yönlendiricisiz Without Streamer (m)	Akış Yönlendiricili With Streamer (m)
			Te= 0°C T0= +10°C (Watt)	Te= -8°C T0= 0°C (Watt)	Te= -25°C T0= -18°C (Watt)	Te= -31°C T0= -25°C (Watt)							
PSO35 311	21,81	7,20	9.067	6.124	4.792	3.816	8.613	3	350	495	49	13	28
PSO35 312	29,07	9,60	10.558	6.962	5.757	4.678	8.271		350	495	49	12	27
PSO35 314	43,59	14,40	14.953	10.055	8.047	6.453	7.671		350	495	49	11	25
PSO40 311	21,72	7,20	9.943	6.697	5.204	4.151	10.650		400	657	56	14	30
PSO40 312	29,07	9,60	11.731	7.688	6.333	5.121	10.089	400	657	56	13	28	
PSO40 314	43,59	14,40	16.432	11.143	8.776	7.035	9.189	400	657	56	12	26	
PSO45 211	25,20	8,3	10.466	7.017	5.704	4.635	10.130	2	450	606	50	16	33
PSO45 212	33,60	11,1	12.982	8.550	7.020	5.673	9.850		450	606	50	15	33
PSO45 214	50,39	16,7	17.018	11.317	9.357	7.626	9.275		450	606	50	14	31
PSO50 211	25,20	8,3	12.485	8.369	6.801	5.537	15.330		500	1.520	59	21	46
PSO50 212	33,60	11,1	15.847	10.623	8.634	7.017	14.590	500	1.520	59	20	43	
PSO50 214	50,39	16,7	21.335	14.308	11.623	9.457	13.160	500	1.520	59	18	39	
PSO45 312	50,40	16,67	19.473	12.824	10.530	8.510	14.775	3	450	909	52	15	33
PSO45 314	75,59	25,01	25.527	16.976	14.036	11.440	13.913		450	909	52	14	31
PSO50 312	50,38	16,7	23.765	15.935	12.946	10.535	21.880		500	2.280	61	20	43
PSO50 314	75,58	25,0	31.997	21.462	17.434	14.181	19.750		500	2.280	61	18	39
PSO45 412	67,20	22,22	25.964	17.099	14.039	11.346	19.700	4	450	1.212	53	15	33
PSO45 414	100,78	33,34	34.035	22.634	18.714	15.253	18.550		450	1.212	53	14	31
PSO50 412	67,18	22,2	31.693	21.256	17.268	14.043	29.180		500	3.040	62	20	43
PSO50 414	100,77	33,3	42.669	28.616	23.246	18.914	26.330		500	3.040	62	18	39

Model Model	Defrost Isitıcılar Electric Defrost Heater			Boyutlar Dimensions										
	B1		B2	L	H	W	L _T	L _C	L _U	H ₁	H ₂	W ₁	W ₂	W ₃
	Batarya Coil (nxW)	Batarya Coil (nxW)	Tava D.Tray (nxW)											
PSO35 311	4x800	4x800	2x800	186	61	52	-	-	153	58	55	49	45	34
PSO35 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
PSO35 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
PSO40 311	4x800	4x800	2x800	186	61	52	-	-	153	58	55	49	45	34
PSO40 312	5x800	5x800	2x800	186	61	62	-	-	153	58	55	55	51	41
PSO40 314	7x800	7x800	2x800	186	61	71	-	-	153	58	55	63	59	49
PSO45 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
PSO45 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
PSO45 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
PSO50 211	6x700	6x700	2x700	166	80	52	-	133	-	75	72	49	41	34
PSO50 212	7x700	7x700	2x700	166	80	62	-	133	-	75	72	55	48	41
PSO50 214	9x700	9x700	2x700	166	80	71	-	133	-	75	72	63	56	49
PSO45 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
PSO45 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
PSO50 312	7x1050	7x1050	2x1050	237	80	62	-	-	198	75	72	55	51	41
PSO50 314	9x1050	9x1050	2x1050	237	80	71	-	-	198	75	72	63	59	49
PSO45 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
PSO45 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49
PSO50 412	7X1350	7X1350	2X1350	302	80	62	-	130	-	75	72	55	51	41
PSO50 414	9X1350	9X1350	2X1350	302	80	71	-	130	-	75	72	63	59	49



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