

Air cooled **Water chillers**

*Hava soğutmalı kondenserli
Soğuk su üretici gruplar*

Screw compressors • Microprocessor controlled
Vidalı kompresörlü • Mikroişlemci kontrollü

For air-conditioning systems,	<i>Klima sistemleri,</i>
Process cooling,	<i>Proses soğutmaları,</i>
Industrial plants and	<i>Sanayi tesisleri ve</i>
Various purpose	<i>Muhtelif maksatlar için</i>

OPTIONAL HIDRONIC KIT / HİDRONİK KİT OPSİYONLU
OPTIONAL COLD CLIMATE KIT / SOĞUK İKLİM KİTİ OPSİYONLU
OPTIONAL ADIABATIC COOLING / ADYABATİK SOĞUTMA OPSİYONLU



Capacity range
Kapasite aralığı
84,5 kW - 2.418 kW

Unit Description Cihaz Tanımı

ERBAY Water Chillers are designed to outdoor installation and provide chilled water leaving temperatures which are given on capacity tables in our factory carrying out EN ISO 9001:2015 Quality Management System. The Units are supplied to ready for installation. All connections, oil and refrigerant charge and required tests are made in our factory. Our units are in conformity with health and safety requirements of European Union directives and relevant harmonized standards.

The capacity of the Units varying between 84,5 kW and 2.418 kW and it's composed of the following parts;

Cooling Compressor : 1 or 2 pieces semi - hermetic compact screw compressors are used according to customer request. Screw compressors as it's characteristics can operate without maintenance need for a long time. Maintenance of the screw compressors are quite simple because of the less amount of the moving parts in it. Screw compressors are equipped with discharge shut-off valves, check - valve that prevents to return back of the refrigerant from the discharge line, oil level switch, oil sight glass, oil separator, oil filter, crankcase heater, capacity control solenoids, vibration dampers, motor protection device and temperature sensors (PTC). Required power supply is 3 ph, 400V, 50Hz.

Condenser : Air cooled condensers are manufactured by collating special profile aluminium fins on copper tubes. Copper tubes are expanded special process in order to increase thermic conductivity between copper tubes and aluminium fins. By this means heat transfer reach to maximum level.

Fan : The high efficient axial fan which is directly coupled with the motor, noiseless bearing, balanced statically and dynamically is mounted on the device to provide the condensation of the refrigerant in the condenser.

Evaporator: Direct expansion evaporator is manufactured in Shell & Tube form and special high efficient copper tubes are fixed to steel tubesheet holes with tube expander method. It's allowed to maintenance and clean up because of the removable tube bundle. Evaporators are in conformity with EN 14276-1 and EN 13445 standarts and designed for chilling water and glycol brines. External surface of evaporators and suction lines are insulated with insulation material with suitable thickness.

Electrical Control Panel : The panel is designed to IP54. To operate the Unit automatically and securely, the panel is composed of two different section. The first section is power section and the other one is control section. The panel is equipped with enough number of contactors, thermics, fuses and on-off switchs. The panel and wiring are in conformity with EN 60204-1 standart. Required power supply is 3 ph - 400 V-50 Hz.

Microprocessor Control System : Microprocessor control system is used on the Unit. By means of this; entering and leaving water temperatures, refrigerant pressures on the suction and discharge lines, occurred superheat temperature, operating times of compressors, all faults occurred on the system and all alarm history can be seen on the digital screen and also capacity control can be made easily. Besides condenser fans are controlled automatically depending on the ambient temperature and the operating times of each compressor is balanced so optimum efficient operation of the Unit is provided.

Components of the Cooling Circuit : To operate the Unit automatically and securely; electronic expansion valve, drier-filter, sight glass, relief valve, flow - switch, high - low pressure switch and shut - off valves are included.

ERBAY Soğuk Su Üretici Grupları, EN ISO 9001:2015 Kalite Yönetim Sistemi-nin uygulandığı fabrikamızda dış ortamda çalışacak ve kapasite tablosundaki soğuk su çıkış sıcaklıklarını verecek şekilde dizayn edilmiştir. Soğutma Gruplarımız fabrikamızda her türlü boru ve kablo bağlantısı, gaz-yağ şarjı ve gerekli testleri yapılmış olarak ve yerine yerleştirmeye hazır halde teslim edilirler. Soğutma Gruplarımız sağlık emniyeti ve güvenlik gereksinimleri konusunda Avrupa Birliği direktiflerine ve ilgili harmonize standartlara uygundur.

Aşağıdaki kısımlardan müteşekkil olan soğutma gruplarının kapasiteleri 84,5 kW ile 2.418 kW arasında değişmektedir.

Soğutma Kompresörü: İsteğe göre 1 veya 2 adet yarı kapalı kompakt vidalı (semi-hermetic compact screw) kompresör kullanılmaktadır. Vidalı kompresör yapısı gereği uzun müddet bakım gerektirmeksizdir. Hareketli parçaların az olması sebebiyle bakımı kolay ve ekonomiktir. Vidalı Kompresörler; basma kapama vanası, basma hattındaki akişkanın geri dönüşünü engelleyen check-valf, yağ seviye switchi, yağ gözetleme camı, yağ ayırcı, filtr, karter ısıtıcı, kapasite kontrol selonoidleri, titreşim takozları, motor koruma rölesi ve PTC sensörleri ile techiz edilmiştir. Gerekli şebeke gerilimi; 3 faz, 400 V, 50 Hz'dır.

Kondenser (Yoğuşturucu) : Hava Soğutmalı Kondenser; yüksek verimli bakır borular üzerine yüzeyi özel profilli alüminyum kanatların uygun hatvede dizilmesi ve bakır borular ile alüminyum kanatlar arasındaki termik iletkenliği artırma gayesi ile bakır borular özel işlem ile şısrıltılmaktadır. Bu suretle ısı transferi maksimum seviyeye çıkartılarak imal edilmektedir.

Fan : Kondenserdeki soğutucu akişkanın yoğunmasını sağlamak üzere motoru ile direk akuple yüksek verimli, aşırı akım koruma röleli, sessiz yataklı, statik ve dinamik olarak dengelenmiş aksiyal fanlar cihaz üzerine monte edilmiştir.

Evaporatör : Shell & Tube tipinde imal edilen direkt genleşmeli evaporatörler özel yüksek verimli bakır boruların çelik ayna deliklerine özel işlem ile tesbit edil-mesi suretiyle üretilmiştir. Boru demetinin sökülebilir olması bakım ve temizlik imkanı sağlar. EN 14276-1 ve EN 13445 standartlarına uygun olarak imal edilen evaporatörler su ve glikol çözeltilerinin soğutulması için tasarlanmıştır. Evaporatörlerin dış yüzeyi ve kompresör emiş hatları uygun kalınlıkta izolasyon malzemesi kullanılarak izole edilmektedir.

Elektrik kumanda panosu : IP54 koruma sınıfına göre tasarlanmıştır. Cihazın tam olarak çalışmasını sağlayacak şekilde güç ve kumanda tarafları olmak üzere iki kısından müteşekkildir. Pano yeterli miktarda kontaktör, termik, sigorta ve şalter ile techiz edilmiştir. Cihazın panosu ve cihaz içi kablo tesisatı EN 60204-1 standartına uygundur. Gerekli şebeke gerilimi; 3 faz, 400 V, 50 Hz'dır.

Mikroişlemci kontrol sistemi : Cihazda kullanılan mikroişlemci kontrol sistemi sayesinde su giriş ve çıkış sıcaklıkları, emme ve basma taraflarındaki gaz basınçları, evaporatörlerde oluşan aşırı ısıtma (superheat) sıcaklığı, kompresörlerin çalışma zamanları, oluşan tüm anızalar ve geçmişte vukubulan tüm anız kayıtları ekranda dijital olarak görülebilmekte ve kolaylıkla kapasite kontrolü yapılmaktadır. Ayrıca dış hava sıcaklığına bağlı olarak kondenser fanları otomatik olarak devreye girip çıkmakta ve her kompresörün çalışma sürelerinin dengede tutularak, cihazın optimum verimde çalışması sağlanmaktadır.

Soğutma devresi elementleri : Cihazın otomatik ve güvenli şekilde çalışması için elektronik genleşme valfi, drayer-filtre, gözetleme camı, emniyet ventilisi, su akış kontrol otomatiği, alçak ve yüksek basınç switchleri ve soğutma valfleri ile techiz edilmiştir.

Technical Specifications *Teknik Özellikler*

TYPE Cihaz Tipi	EBHV- 50Y.1	EBHV- 60Y.1	EBHV- 70Y.1	EBHV- 80Y.1	EBHV- 90Y.1	EBHV- 110Y.1	EBHV- 125Y.1	EBHV- 140Y.1	EBHV- 210Y.1	EBHV- 240Y.1	EBHV- 280Y.1	EBHV- 300Y.1	EBHV- 300Y.2
Nominal Capacity (kW) <i>Nominal Kapasite</i>	[1] 124,8	156,6	183,9	210,0	242,0	300,0	342,0	395,0	518,0	588,0	692,0	893,0	1036,0
	[2] 110,9	139,2	161,6	183,2	213,0	268,0	305,0	353,0	461,0	526,0	624,0	714,0	811,0
Nominal Power Input of the Comp. (kW) <i>Nominal Kompresör Gücü</i>	[1] 29,7	36,8	42,9	49,1	55,5	68,7	78,3	89,4	111,1	127,0	148,4	168,0	185,2
	[2] 34,7	43,0	49,9	56,2	64,7	81,2	92,5	105,6	132,1	148,8	171,4	197,2	217,0
Number of Compressors <i>Kompresör Adedi</i>	1	1	1	1	1	1	1	1	1	1	1	1	1
Capacity Control / Kapasite Kontrol	Infinite / Sürekli (3 steps on request / isteğe bağlı 3 kademe)												
Number of Fans x Power Input (kW) <i>Fan Adedi x Çekilen Güç</i>	2 x 1,8	2 x 1,8	4 x 1,8	4 x 1,8	4 x 1,8	6 x 1,8	6 x 1,8	8 x 1,8	10 x 1,8	10 x 1,8	12 x 1,8	16 x 1,8	20 x 1,8
Total Air Flowrate (m³/s) <i>Toplam Hava Debeti</i>	12,50	12,50	25,00	25,00	25,00	37,50	37,50	50,00	50,00	62,50	62,50	75,00	100,00
Nominal Evaporator Water Flowrate (m³/h) <i>Nominal Evaporatör Su Debeti</i>	[1] 21,47	26,94	31,63	36,12	41,62	51,60	58,82	67,94	89,10	101,14	119,02	135,19	153,60
	[2] 19,07	23,94	27,79	31,51	36,63	46,09	52,46	60,71	79,29	90,47	107,32	122,8	139,49
Refrigerant Charge (kg) <i>Sıvılaştırıcı Gaz Miktarı</i>	23	31	36	39	53	58	67	84	85	111	138	151	175
Oil Charge (lt) <i>Yağ Miktarı</i>	9,5	9,5	15	15	15	22	22	30	30	30	30	30	60
Sound Pressure Level dB (A) <i>Cihaz Ses Seviyesi</i>	[4] 51	53	56	57	56	60	62	66	67	66	68	71	72
Operating Weight ~ (kg) / İşletme Ağırlığı	1195	1295	1860	1930	2090	2500	2910	3150	3980	4380	5250	5410	6100

(1) Values are based on evaporator entering/leaving water temp. 12°C/7°C and ambient temperature 25°C
12°C su giriş, 7°C su çıkış ve 25°C dış hava sıcaklığına göre verilmiştir.

(2) Values are based on evaporator entering/leaving water temp. 12°C/7°C and ambient temperature 33°C
12°C su giriş, 7°C su çıkış ve 33°C dış hava sıcaklığına göre verilmiştir.

(3) Values are based on the Dew Point of evaporating and condensing temperatures
Evaporasyon ve kondenzasyon sıcaklıklarının çığ noktasındaki değerlerine göre verilmiştir.

(4) Values are based on freefield conditions in 10 meter distance.
Boş alanda 10 metre mesafedeki değerlerere göre verilmiştir.

Note: Required power supply is 3 ph-400 Volt-50 Hz.
Not: Gerekli şebekede gerilimi 3 faz-400 Volt-50 Hz'dır.

Capacity Table (kW) Kapasite Tablosu

R407C

TYPE C/H/AZ T/P/ SU Q/K/Q/ Q	CONDENSER ENTERING AIR TEMP. / KONDENSERE HAVA GİRİŞ SICAKLIĞI											
	24 °C		26 °C		28 °C		30 °C		32 °C		34 °C	
No	Q	No	Q	No	Q	No	Q	No	Q	No	Q	No
6°C	121,7	28,8	118,5	30,0	115,2	31,2	111,8	32,4	108,3	33,7	104,7	35,1
7°C	126,4	29,1	123,2	30,2	119,8	31,5	116,3	32,7	112,7	34,0	109,0	35,4
8°C	131,3	29,4	128,0	30,5	124,5	31,7	121,0	33,0	117,3	34,3	113,4	35,7
9°C	136,3	29,7	132,9	30,8	129,4	32,0	125,7	33,3	121,9	34,6	118,0	35,9
10°C	141,5	30,0	138,0	31,1	134,4	32,3	130,6	33,6	126,8	34,9	122,8	36,2
11°C	146,7	30,3	143,2	31,4	139,5	32,6	135,7	33,9	131,7	35,2	127,6	36,5
12°C	152,2	30,6	148,5	31,7	144,8	32,9	140,9	34,2	136,8	35,5	132,6	36,8
13°C	157,8	30,9	154,1	32,0	150,2	33,2	146,2	34,5	142,1	35,8	137,8	37,1
14°C	163,6	31,2	159,7	32,4	155,8	33,5	151,7	34,8	147,5	36,1	143,1	37,4
15°C	169,5	31,5	165,6	32,7	161,5	33,9	157,4	35,1	153,0	36,4	148,6	37,8
6°C	152,7	35,8	148,7	37,2	144,6	38,7	140,4	40,3	136,0	41,9	131,4	43,6
7°C	158,6	36,1	154,6	37,5	150,4	39,0	146,0	40,6	141,5	42,2	136,9	43,9
8°C	164,7	36,5	160,6	37,9	156,3	39,4	151,8	40,9	147,2	42,6	142,5	44,2
9°C	171,0	36,8	166,8	38,2	162,4	39,7	157,8	41,3	153,1	42,9	148,2	44,6
10°C	177,5	37,2	173,1	38,6	168,6	40,1	164,0	41,6	159,2	43,3	154,2	44,9
11°C	184,1	37,5	179,7	39,0	175,1	40,5	170,3	42,0	165,4	43,6	160,3	45,3
12°C	191,0	37,9	186,4	39,4	181,7	40,8	176,8	42,4	171,8	44,0	166,6	45,7
13°C	198,0	38,3	193,3	39,7	188,5	41,2	183,5	42,8	178,4	44,4	173,1	46,1
14°C	205,0	38,7	200,0	40,1	195,6	41,6	190,5	43,2	185,2	44,8	179,8	46,5
15°C	213,0	39,1	208,0	40,6	203,0	42,0	197,6	43,6	192,2	45,2	186,6	46,9
7°C	186,6	42,1	181,2	43,7	175,7	45,4	170,1	47,1	164,4	49,0	158,7	50,9
8°C	194,1	42,5	188,6	44,0	182,9	45,7	177,1	47,4	171,3	49,3	165,3	51,2
9°C	202,0	42,8	196,1	44,4	190,3	46,1	184,3	47,8	178,3	49,6	172,1	51,5
10°C	210,0	43,2	204,0	44,8	197,9	46,4	191,8	48,1	185,5	49,9	179,2	51,8
11°C	218,0	43,6	212,0	45,2	206,0	46,8	199,5	48,5	193,0	50,3	186,5	52,1
12°C	227,0	44,0	220,0	45,5	214,0	47,1	207,0	48,8	201,0	50,6	194,0	52,5
13°C	235,0	44,4	229,0	45,9	222,0	47,5	216,0	49,2	209,0	51,0	202,0	52,8
14°C	244,0	44,8	238,0	46,3	231,0	47,9	224,0	49,6	217,0	51,3	210,0	53,2
15°C	254,0	45,3	247,0	46,8	240,0	48,3	233,0	50,0	225,0	51,7	218,0	53,5

Capacity Table (kW) Kapasite Tablosu

R407C

TYPE C/H/AZ T/P/ SU Q/K/SI	CONDENSER ENTERING AIR TEMP. / KONDENSERE HAVA GİRİŞ SICAKLIĞI											
	24 °C		26 °C		28 °C		30 °C		32 °C		34 °C	
Q	No	Q	No	Q	No	Q	No	Q	No	Q	No	Q
6°C	205,0	47,7	198,7	49,3	192,3	51,0	185,8	52,8	179,2	54,7	172,6	56,7
7°C	213,0	48,3	207,0	49,9	200,0	51,6	193,5	53,4	186,7	55,2	179,8	57,2
8°C	222,0	48,9	215,0	50,5	208,0	52,2	201,0	53,9	194,4	55,8	187,3	57,7
9°C	231,0	49,6	224,0	51,2	217,0	52,8	210,0	54,5	202,0	56,4	195,0	58,3
10°C	240,0	50,3	233,0	51,8	225,0	53,5	218,0	55,2	210,0	57,0	203,0	58,9
11°C	249,0	51,0	242,0	52,5	234,0	54,1	227,0	55,8	219,0	57,6	211,0	59,5
12°C	259,0	51,8	251,0	53,3	243,0	54,9	236,0	56,5	228,0	58,3	220,0	60,1
13°C	269,0	52,5	261,0	54,0	253,0	55,6	245,0	57,2	237,0	59,0	228,0	60,8
14°C	279,0	53,4	271,0	54,8	263,0	56,4	254,0	58,0	246,0	59,7	237,0	61,5
15°C	289,0	54,2	281,0	55,7	273,0	57,2	264,0	58,8	255,0	60,5	247,0	62,3
	6°C	236,0	54,0	229,0	56,1	222,0	58,3	215,0	60,6	208,0	63,0	201,0
	7°C	245,0	54,4	238,0	56,5	231,0	58,7	224,0	61,0	217,0	63,5	209,0
	8°C	255,0	54,9	247,0	57,0	240,0	59,2	233,0	61,5	225,0	63,9	217,0
	9°C	264,0	55,4	257,0	57,5	249,0	59,7	242,0	62,0	234,0	64,4	226,0
	10°C	274,0	55,9	267,0	58,0	259,0	60,2	251,0	62,5	243,0	64,9	235,0
	11°C	285,0	56,5	277,0	58,5	269,0	60,7	261,0	63,0	252,0	65,4	244,0
	12°C	295,0	57,0	287,0	59,1	279,0	61,2	271,0	63,5	262,0	65,9	253,0
	13°C	306,0	57,6	298,0	59,6	290,0	61,8	281,0	64,0	272,0	66,4	263,0
	14°C	318,0	58,2	309,0	60,2	300,0	62,3	291,0	64,5	282,0	66,9	273,0
	15°C	329,0	58,8	320,0	60,8	311,0	62,9	302,0	65,1	293,0	67,4	283,0
	7°C	304,0	67,3	296,0	70,1	288,0	73,0	280,0	76,1	272,0	79,4	264,0
	8°C	315,0	67,9	307,0	70,7	299,0	73,6	291,0	76,7	283,0	80,0	274,0
	9°C	327,0	68,6	319,0	71,3	311,0	74,2	302,0	77,4	294,0	80,7	285,0
	10°C	339,0	69,3	331,0	72,0	322,0	74,9	314,0	78,0	305,0	81,3	296,0
	11°C	352,0	70,0	343,0	72,7	335,0	75,6	326,0	78,7	316,0	82,0	307,0
	12°C	365,0	70,7	356,0	73,4	347,0	76,3	338,0	79,4	328,0	82,7	319,0
	13°C	378,0	71,4	369,0	74,1	360,0	77,0	350,0	80,1	341,0	83,4	331,0
	14°C	392,0	72,2	382,0	74,9	373,0	77,8	363,0	80,8	353,0	84,1	343,0
	15°C	406,0	73,0	396,0	75,7	386,0	78,6	376,0	81,6	366,0	84,9	356,0

Q= Cooling capacity (kW) Soğutma kapasitesi

N_o= Power input (kW) Kompresör mil gücü

Capacity Table (kW) Kapasite Tablosu**R407C**

CONDENSER ENTERING AIR TEMP. / KONDENSERE HAVA GİRİŞ SICAKLIĞI												
TYPE C/H/AZ T/P/ SU Q/K/S/	CHILLED WATER LEAVING			24 °C			26 °C			28 °C		
	Q	No	Q	No	Q	No	Q	No	Q	No	Q	No
EBHV-125Y.1	6°C	333,0	76,0	325,0	79,2	316,0	82,5	307,0	86,1	298,0	89,9	289,0
	7°C	346,0	76,7	337,0	79,8	329,0	83,2	319,0	86,8	310,0	90,5	291,0
	8°C	359,0	77,4	350,0	80,6	341,0	83,9	332,0	87,4	322,0	91,2	312,0
	9°C	373,0	78,2	364,0	81,3	354,0	84,6	345,0	88,2	335,0	91,9	325,0
	10°C	387,0	78,9	377,0	82,1	368,0	85,4	358,0	88,9	347,0	92,7	337,0
	11°C	401,0	79,7	391,0	82,8	381,0	86,2	371,0	89,7	361,0	93,4	350,0
	12°C	416,0	80,6	406,0	83,7	395,0	87,0	385,0	90,5	374,0	94,2	363,0
	13°C	431,0	81,4	421,0	84,5	410,0	87,8	399,0	91,3	388,0	95,0	377,0
	14°C	447,0	82,3	436,0	85,4	425,0	88,7	414,0	92,1	403,0	95,9	391,0
	15°C	463,0	83,2	452,0	86,3	440,0	89,5	429,0	93,0	417,0	96,7	406,0
EBHV-140Y.1	6°C	385,0	86,8	375,0	90,4	365,0	94,2	355,0	98,3	345,0	102,6	334,0
	7°C	400,0	87,6	390,0	91,2	379,0	95,0	369,0	99,1	358,0	103,4	347,0
	8°C	415,0	88,4	404,0	92,0	394,0	95,8	383,0	99,9	372,0	104,2	361,0
	9°C	430,0	89,3	420,0	92,8	409,0	96,6	398,0	100,7	387,0	105,0	375,0
	10°C	446,0	90,1	436,0	93,7	424,0	97,5	413,0	101,5	401,0	105,8	389,0
	11°C	463,0	91,0	452,0	94,6	440,0	98,4	429,0	102,4	417,0	106,7	404,0
	12°C	480,0	92,0	468,0	95,5	457,0	99,3	455,0	103,3	432,0	107,6	420,0
	13°C	498,0	93,0	486,0	96,5	474,0	100,2	461,0	104,2	448,0	108,5	435,0
	14°C	516,0	94,0	503,0	97,5	491,0	101,2	478,0	105,2	465,0	109,5	452,0
	15°C	534,0	95,1	521,0	98,5	509,0	102,2	496,0	106,2	482,0	110,4	468,0
EBHV-180Y.1	6°C	505,0	108,4	491,0	113,1	478,0	118,1	464,0	123,3	450,0	128,8	436,0
	7°C	525,0	108,8	511,0	113,5	497,0	118,5	483,0	123,8	469,0	129,2	454,0
	8°C	545,0	109,2	531,0	113,9	517,0	118,9	502,0	124,2	488,0	129,7	472,0
	9°C	567,0	109,5	552,0	114,3	538,0	119,3	522,0	124,5	507,0	130,1	492,0
	10°C	589,0	109,8	574,0	114,6	559,0	119,6	543,0	124,9	527,0	130,4	511,0
	11°C	611,0	110,1	596,0	114,9	580,0	119,9	564,0	125,2	548,0	130,7	532,0
	12°C	635,0	110,3	619,0	115,1	603,0	120,1	586,0	125,4	570,0	131,0	553,0
	13°C	658,0	110,5	642,0	115,3	626,0	120,3	609,0	125,6	592,0	131,2	574,0
	14°C	683,0	110,7	666,0	115,4	649,0	120,5	632,0	125,8	614,0	131,3	596,0
	15°C	708,0	110,7	691,0	115,5	674,0	120,6	656,0	125,9	638,0	131,4	619,0

Q= Cooling capacity (kW) Soğutma kapasitesi

N_o= Power input (kW) Kompresör mil gücü

Capacity Table (kW) Kapasite Tablosu

R407C

CONDENSER ENTERING AIR TEMP. / KONDENSERE HAVA GİRİŞ SICAKLIĞI																
TYPE C/H/AZ T/P/I	CHILLED WATER LEAVING SU C/K/SI		24 °C		26 °C		28 °C		30 °C		32 °C		34 °C		36 °C	
	Q	No	Q	No	Q	No	Q	No	Q	No	Q	No	Q	No	Q	No
6 °C	573,0	123,9	559,0	128,8	544,0	134,0	529,0	139,5	513,0	145,2	498,0	151,3	482,0	157,6	466,0	164,2
7 °C	595,0	124,6	580,0	129,5	565,0	134,6	550,0	140,1	534,0	145,8	518,0	151,9	501,0	158,2	485,0	164,8
8 °C	618,0	125,3	603,0	130,1	587,0	135,3	571,0	140,7	555,0	146,4	538,0	152,5	521,0	158,8	504,0	165,3
9 °C	642,0	126,0	626,0	130,8	610,0	136,0	593,0	141,4	576,0	147,1	559,0	153,1	542,0	159,3	524,0	165,9
10 °C	666,0	126,8	650,0	131,6	633,0	136,7	616,0	142,0	599,0	147,7	581,0	153,7	563,0	159,9	545,0	166,5
11 °C	691,0	127,5	674,0	132,3	657,0	137,3	640,0	142,7	622,0	148,3	604,0	154,3	585,0	160,5	567,0	167,1
12 °C	717,0	128,3	699,0	133,0	682,0	138,1	664,0	143,4	645,0	149,0	627,0	154,9	608,0	161,1	588,0	167,6
13 °C	743,0	129,1	725,0	133,8	707,0	138,8	689,0	144,1	670,0	149,6	650,0	155,5	631,0	161,7	611,0	168,2
14 °C	770,0	129,9	752,0	134,6	733,0	139,5	714,0	144,8	695,0	150,3	675,0	156,1	655,0	162,3	634,0	168,8
15 °C	798,0	130,8	779,0	135,4	760,0	140,3	740,0	145,5	720,0	151,0	700,0	156,8	679,0	162,9	658,0	169,3
6 °C	674,0	144,7	657,0	149,8	641,0	155,3	624,0	161,0	608,0	167,1	591,0	173,5	574,0	180,2	556,0	187,4
7 °C	700,0	145,9	684,0	151,0	667,0	156,4	650,0	162,2	632,0	168,2	615,0	174,6	597,0	181,3	579,0	188,4
8 °C	728,0	147,1	711,0	152,2	693,0	157,6	676,0	163,3	658,0	169,4	640,0	175,7	621,0	182,4	603,0	189,5
9 °C	756,0	148,4	739,0	153,5	720,0	158,9	702,0	164,5	684,0	170,5	665,0	176,9	646,0	183,6	627,0	190,6
10 °C	786,0	149,7	767,0	154,8	749,0	160,1	730,0	165,8	711,0	171,7	691,0	178,1	672,0	184,7	652,0	191,8
11 °C	816,0	151,0	797,0	156,1	777,0	161,4	758,0	167,0	738,0	173,0	718,0	179,3	698,0	185,9	678,0	192,9
12 °C	847,0	152,4	827,0	157,4	807,0	162,7	787,0	168,3	767,0	174,3	746,0	180,5	725,0	187,2	704,0	194,1
13 °C	879,0	153,9	858,0	158,8	838,0	164,1	817,0	169,7	796,0	175,6	775,0	181,8	753,0	188,4	731,0	195,4
14 °C	911,0	155,3	890,0	160,3	869,0	165,5	848,0	171,1	826,0	176,9	804,0	183,1	782,0	189,7	759,0	196,7
15 °C	945,0	156,8	924,0	161,8	902,0	167,0	879,0	172,5	857,0	178,3	834,0	184,5	811,0	191,0	788,0	198,0
7 °C	794,0	164,7	777,0	171,4	759,0	178,5	741,0	185,8	723,0	193,3	704,0	201,0	685,0	209,0	666,0	218,0
8 °C	825,0	165,6	807,0	172,4	789,0	179,4	771,0	186,8	752,0	194,4	732,0	202,0	713,0	210,0	693,0	217,0
9 °C	856,0	166,6	838,0	173,4	819,0	180,4	800,0	187,8	781,0	195,4	761,0	203,0	741,0	211,0	721,0	220,0
10 °C	888,0	167,5	870,0	174,3	851,0	181,4	831,0	188,8	811,0	196,4	791,0	204,0	770,0	213,0	749,0	221,0
11 °C	922,0	168,5	902,0	175,3	883,0	182,4	863,0	189,8	842,0	197,4	822,0	205,0	800,0	214,0	779,0	222,0
12 °C	956,0	169,4	936,0	176,2	916,0	183,3	895,0	190,7	874,0	198,4	853,0	206,0	831,0	215,0	809,0	223,0
13 °C	991,0	170,3	971,0	177,2	950,0	184,3	929,0	191,7	907,0	199,4	885,0	207,0	863,0	216,0	840,0	224,0
14 °C	1,027,0	171,3	1,006,0	178,1	985,0	185,2	963,0	192,7	941,0	200,0	919,0	208,0	896,0	217,0	872,0	225,0
15 °C	1,064,0	172,2	1,043,0	179,0	1,021,0	186,2	999,0	193,6	976,0	201,0	953,0	209,0	929,0	218,0	905,0	226,0

Q = Cooling capacity (kW) Soğutma kapasitesi

N_o = Power input (kW) Kompresör mil gücü

Capacity Table (kW) Kapasite Tablosu**R407C**

CONDENSER ENTERING AIR TEMP. / KONDENSERE HAVA GİRİŞ SICAKLIĞI												
TYPE C/H/AZ T/P/ SU Q/K(S)	CHILLED WATER LEAVING			24 °C			26 °C			28 °C		
	No	Q	No	No	Q	No	No	Q	No	No	Q	No
EBHV - 300Y.1	6°C	869,0	180,4	850,0	187,9	831,0	195,6	811,0	204,0	790,0	212,0	770,0
	7°C	903,0	181,5	883,0	188,9	863,0	196,7	843,0	205,0	822,0	213,0	801,0
	8°C	937,0	182,5	917,0	190,0	897,0	197,8	876,0	206,0	854,0	214,0	832,0
	9°C	973,0	183,6	952,0	191,1	931,0	198,8	910,0	207,0	888,0	215,0	865,0
	10°C	1.010,0	184,6	988,0	192,1	967,0	199,9	945,0	208,0	922,0	216,0	899,0
	11°C	1.047,0	185,7	1.025,0	193,2	1.003,0	201,0	981,0	209,0	957,0	218,0	934,0
	12°C	1.086,0	186,7	1.064,0	194,2	1.041,0	202,0	1.018,0	210,0	994,0	219,0	969,0
	13°C	1.126,0	187,7	1.103,0	195,3	1.080,0	203,0	1.056,0	211,0	1.031,0	220,0	1.006,0
	14°C	1.167,0	188,7	1.143,0	196,3	1.119,0	204,0	1.095,0	212,0	1.070,0	221,0	1.044,0
	15°C	1.209,0	189,8	1.185,0	197,3	1.160,0	205,0	1.135,0	213,0	1.109,0	222,0	1.083,0
EBHV - 180Y.2	6°C	1.010,0	216,8	982,0	226,2	956,0	236,2	938,0	246,6	900,0	257,6	872,0
	7°C	1.050,0	217,6	1.022,0	227,0	994,0	237,0	966,0	247,6	938,0	258,4	908,0
	8°C	1.090,0	218,4	1.062,0	227,8	1.034,0	237,8	1.004,0	248,4	976,0	259,4	944,0
	9°C	1.134,0	219,0	1.104,0	228,6	1.076,0	238,6	1.044,0	249,0	1.014,0	260,2	984,0
	10°C	1.178,0	219,6	1.148,0	229,2	1.118,0	239,2	1.086,0	249,8	1.054,0	260,8	1.022,0
	11°C	1.222,0	220,2	1.192,0	229,8	1.160,0	239,8	1.128,0	250,4	1.096,0	261,4	1.064,0
	12°C	1.270,0	220,6	1.238,0	230,2	1.206,0	240,2	1.172,0	250,8	1.140,0	262,0	1.106,0
	13°C	1.316,0	221,0	1.284,0	230,6	1.252,0	240,6	1.218,0	251,2	1.184,0	262,4	1.148,0
	14°C	1.366,0	221,4	1.332,0	230,8	1.298,0	241,0	1.264,0	251,6	1.228,0	262,6	1.192,0
	15°C	1.416,0	221,4	1.382,0	231,0	1.348,0	241,2	1.312,0	251,8	1.276,0	262,8	1.238,0
EBHV - 210Y.2	6°C	1.146,0	247,8	1.118,0	257,6	1.088,0	268,0	1.058,0	279,0	1.026,0	290,4	996,0
	7°C	1.190,0	249,2	1.160,0	259,0	1.130,0	269,2	1.100,0	280,2	1.068,0	291,6	1.036,0
	8°C	1.236,0	250,6	1.206,0	260,2	1.174,0	270,6	1.142,0	281,4	1.110,0	292,8	1.076,0
	9°C	1.284,0	252,0	1.252,0	261,6	1.220,0	272,0	1.186,0	282,8	1.152,0	294,2	1.118,0
	10°C	1.332,0	253,6	1.300,0	263,2	1.266,0	273,4	1.232,0	284,0	1.198,0	295,4	1.162,0
	11°C	1.382,0	255,0	1.348,0	264,6	1.314,0	274,6	1.280,0	285,4	1.244,0	296,6	1.208,0
	12°C	1.434,0	256,6	1.398,0	266,0	1.364,0	276,2	1.328,0	286,8	1.290,0	298,0	1.254,0
	13°C	1.486,0	258,2	1.450,0	267,6	1.414,0	277,6	1.378,0	288,2	1.340,0	299,2	1.300,0
	14°C	1.540,0	259,8	1.504,0	269,2	1.466,0	279,0	1.428,0	289,6	1.390,0	300,6	1.350,0
	15°C	1.596,0	261,6	1.558,0	270,8	1.520,0	280,6	1.480,0	291,0	1.440,0	302,0	1.400,0

Capacity Table (kW) Kapasite Tablosu

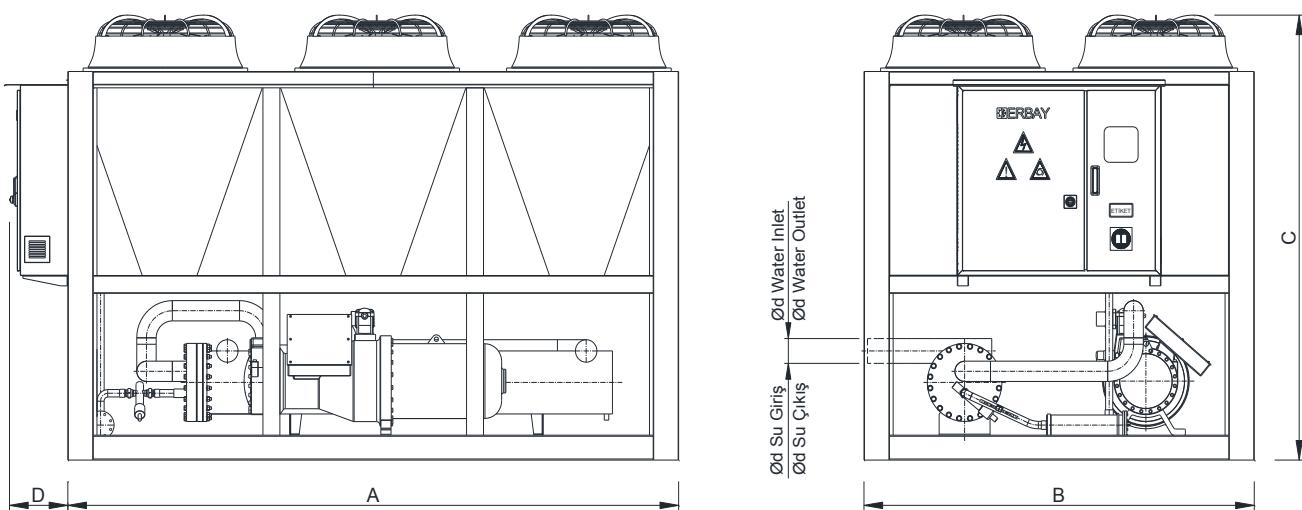
R407C

CONDENSER ENTERING AIR TEMP. / KONDENSER HAVA GİRİŞ SICAKLIĞI													
TYPE	CHILLED WATER LEAVING TEMP. C/H/AZ T/I/Pi	24 °C			26 °C			28 °C			30 °C		
		No	Q	No	No	Q	No	No	Q	No	No	Q	No
EBHV- 240Y.2	6°C	1.348,0	289,4	1.314,0	299,6	1.282,0	310,6	1.248,0	322,0	1.216,0	334,2	1.182,0	347,0
	7°C	1.400,0	291,8	1.368,0	302,0	1.334,0	312,8	1.300,0	324,4	1.264,0	336,4	1.230,0	349,2
	8°C	1.456,0	294,2	1.422,0	304,4	1.386,0	315,2	1.352,0	326,6	1.316,0	338,8	1.280,0	351,4
	9°C	1.512,0	296,8	1.478,0	307,0	1.440,0	317,8	1.404,0	329,0	1.368,0	341,0	1.330,0	353,8
	10°C	1.572,0	299,4	1.534,0	309,6	1.498,0	320,2	1.460,0	331,6	1.422,0	343,4	1.382,0	356,2
	11°C	1.632,0	302,0	1.594,0	312,2	1.554,0	322,8	1.516,0	334,0	1.476,0	346,0	1.436,0	358,6
	12°C	1.694,0	304,8	1.654,0	314,8	1.614,0	325,4	1.574,0	336,6	1.534,0	348,6	1.492,0	361,0
	13°C	1.758,0	307,8	1.716,0	317,6	1.676,0	328,2	1.634,0	339,4	1.592,0	351,2	1.550,0	363,6
	14°C	1.822,0	310,6	1.780,0	320,6	1.738,0	331,0	1.696,0	342,2	1.652,0	353,8	1.608,0	366,2
	15°C	1.890,0	313,6	1.848,0	323,6	1.804,0	334,0	1.758,0	345,0	1.714,0	356,6	1.668,0	369,0
	6°C	1.530,0	327,4	1.496,0	341,0	1.462,0	355,0	1.426,0	369,4	1.390,0	384,6	1.354,0	400,0
	7°C	1.588,0	329,4	1.554,0	342,8	1.518,0	357,0	1.482,0	371,6	1.446,0	386,6	1.408,0	402,0
	8°C	1.650,0	331,2	1.614,0	344,8	1.578,0	358,8	1.542,0	373,6	1.504,0	388,8	1.464,0	404,0
	9°C	1.712,0	333,2	1.676,0	346,8	1.638,0	360,8	1.600,0	375,6	1.562,0	390,8	1.522,0	406,0
	10°C	1.776,0	335,0	1.740,0	348,6	1.702,0	362,8	1.662,0	377,6	1.622,0	392,8	1.582,0	408,0
	11°C	1.844,0	337,0	1.804,0	350,6	1.766,0	364,8	1.726,0	379,6	1.684,0	394,8	1.644,0	410,0
	12°C	1.912,0	338,8	1.872,0	352,4	1.832,0	366,6	1.790,0	381,4	1.748,0	396,8	1.706,0	412,0
EBHV- 280Y.2	13°C	1.982,0	340,6	1.942,0	354,4	1.900,0	368,6	1.858,0	383,4	1.814,0	398,8	1.770,0	414,0
	14°C	2.054,0	342,6	2.012,0	356,2	1.970,0	370,4	1.926,0	385,4	1.882,0	400,0	1.838,0	416,0
	15°C	2.128,0	344,4	2.086,0	358,0	2.042,0	372,4	1.998,0	387,2	1.952,0	402,0	1.906,0	418,0
	6°C	1.738,0	360,8	1.700,0	375,8	1.662,0	391,2	1.622,0	408,0	1.580,0	424,0	1.540,0	442,0
	7°C	1.806,0	363,0	1.766,0	377,8	1.726,0	393,4	1.686,0	410,0	1.644,0	426,0	1.602,0	444,0
	8°C	1.874,0	365,0	1.834,0	380,0	1.794,0	395,6	1.752,0	412,0	1.708,0	428,0	1.664,0	446,0
	9°C	1.946,0	367,2	1.904,0	382,2	1.862,0	397,6	1.820,0	414,0	1.776,0	430,0	1.730,0	448,0
	10°C	2.020,0	369,2	1.976,0	384,2	1.934,0	399,8	1.890,0	416,0	1.844,0	432,0	1.798,0	450,0
	11°C	2.094,0	371,4	2.050,0	386,4	2.006,0	402,0	1.962,0	418,0	1.914,0	436,0	1.868,0	452,0
	12°C	2.172,0	373,4	2.128,0	388,4	2.082,0	404,0	2.036,0	420,0	1.988,0	438,0	1.938,0	454,0
	13°C	2.252,0	375,4	2.206,0	390,6	2.160,0	406,0	2.112,0	422,0	2.062,0	440,0	2.012,0	458,0
	14°C	2.334,0	377,4	2.286,0	392,6	2.238,0	408,0	2.190,0	424,0	2.140,0	442,0	2.088,0	460,0
	15°C	2.418,0	379,6	2.370,0	394,6	2.320,0	410,0	2.270,0	426,0	2.218,0	444,0	2.166,0	462,0

Q = Cooling capacity (kW) Soğutma kapasitesi

N_o = Power input (kW) Kompresör mili/güçü

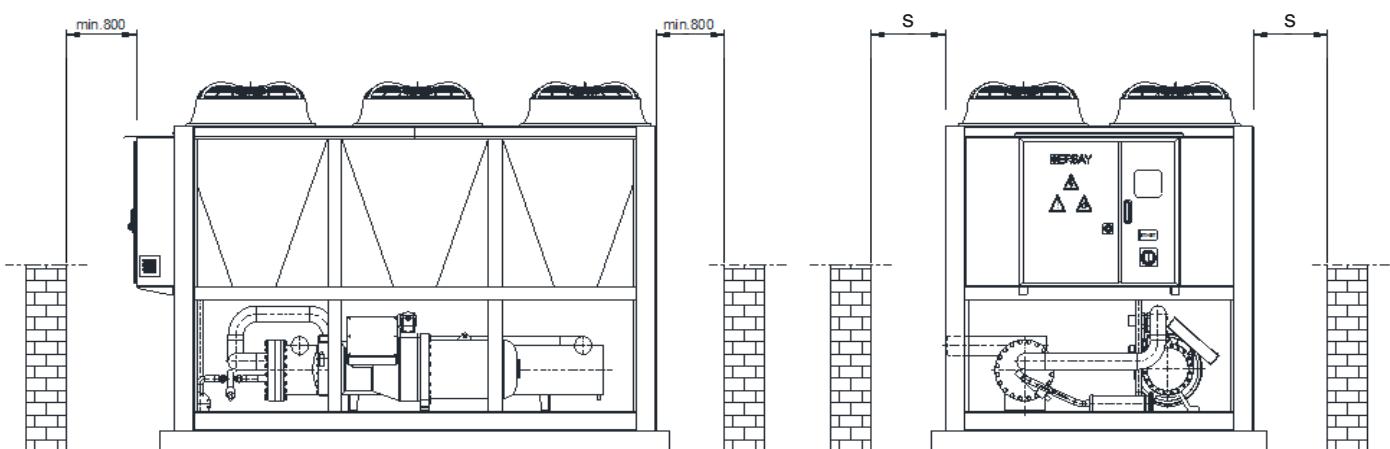
Dimensions Boyutlar



Type Cihaz Tipi	EBHV-50Y.1	EBHV-60Y.1	EBHV-70Y.1	EBHV-80Y.1	EBHV-90Y.1	EBHV-110Y.1	EBHV-125Y.1	EBHV-140Y.1	EBHV-180Y.1	EBHV-210Y.1	EBHV-240Y.1	EBHV-280Y.1	EBHV-300Y.1	EBHV-180Y.2	EBHV-210Y.2	EBHV-240.2	EBHV-280Y.2	EBHV-300Y.2
A	1300	1300	2400	2400	2400	2400	3600	3600	4800	4800	6000	6000	7200	9600	9600	12000	12000	14400
B	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250	2250
C	2380	2380	2405	2505	2505	2505	2505	2555	2555	2555	2555	2605	2605	2555	2555	2605	2605	2605
D	375	375	375	375	375	375	375	375	425	425	425	425	425	425	425	425	425	425
d	DN65	DN80	DN100	DN100	DN100	DN100	DN125	DN125	DN125	DN150	DN150	DN200	DN200	2xDN125	2xDN150	2xDN150	2xDN200	2xDN200

CLEARANCES OF UNIT / CIHAZ YERLEŞİM ÖLÇÜSÜ																		
S	1000	1000	1100	1100	1100	1100	1200	1200	1200	1300	1300	1500	1500	1500	1800	1800	2000	2000

Clearances Cihaz Yerleşimi



Note : We reserve the right to make changes in dimensions and design at any time, without notice.
 Not : Ölçü ve dizayn değiştirme hakkımız mahfuzdur.



ERBAY SOĞUTMA İKLİMLENDİRME CIHAZLARI SAN VE TİC. A.Ş.

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