



گروه فنی و مهندسی ایده پردازان ایرسا



## کاتالوگ محصولات سرمایش صنعتی

آدرس: تهران، بلوار فردوس شرق، بین رامین و گلستان، پلاک ۲۴۲، واحد ۲۴

Irsateam.net

تلفن: ۰۲۱-۴۴۹۶۲۴۸۵ . ۰۲۱-۴۴۰۵۲۲۰۵

## چرا ایرسا را انتخاب کنیم؟

- ارائه خدمات مشاوره مهندسی قبل از خرید
- نظارت بر اجرای زیر ساخت ها
- ارائه بهترین محصولات مطابق استانداردهای روز
- خدمات پس از فروش

رضایت کارفرمایان بهترین تبلیغ برای ما است.



## نمونه ای از پروژه های انجام شده

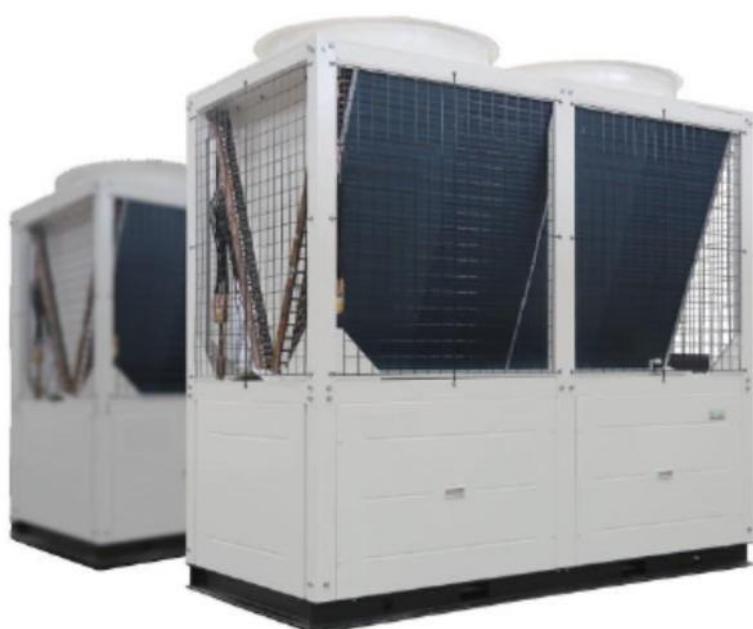
رزومه کامل در [irsateam.net](http://irsateam.net)

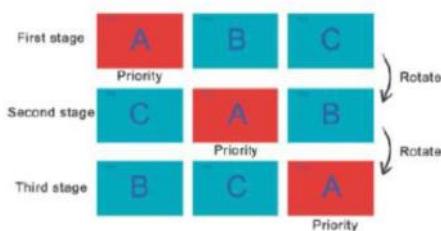
نام پروژه	محل پروژه	نام پروژه	محل پروژه	نام پروژه
دروس	ساختمان مسکونی آقای جواهری	خیابان فرشته جنب سام سنتر	خیابان فرشته	رستوران قصاب
صفا دشت	ویلای لوکس صفا دشت (برندۀ جایزه معماری)	پارک فناوری پردیس	پارک فناوری پردیس	گالری ام اچ کازا
شهرک هزار دشت	ویلای لوکس آبعلی (کلندید مسابقه معماری)	سیاه سنگ	سیاه سنگ	دیتاسنتر و کارگاه شرکت آسان پرداخت (آپ)
دزاشیب	ساختمان مسکونی آقای اسدی پیکر	اشتهراد	اشتهراد	کارگاه شرکت آسان پرداخت (آپ)
پونک	ساختمان مسکونی آقای کاکاوند	پرندک	پرندک	کارخانه سیگار BAT
شهرک گلستان (منطقه ۲۲)	ساختمان مسکونی آقای چنگیزی	کرج ابتدای جاده چالوس	کرج ابتدای جاده چالوس	کارخانه کنسروهای غیر گوشتی صنایع غذایی برتر
شهرک گلستان (منطقه ۲۲)	ساختمان مسکونی آقای کتابی	پارک فناوری پردیس	پارک فناوری پردیس	تالار و رستوران قصر رز
شهرک گلستان (منطقه ۲۲)	ساختمان مسکونی آقای خدادادی	میرداماد	میرداماد	ساختمان اداری شرکت فناپ
کامرانیه	ساختمان مسکونی آقای دانشور	اتوبان تندگویان	اتوبان تندگویان	موزه دفینه
سعادت آباد	ساختمان مسکونی آقای فدایی	جردن	جردن	مجتمع فرهنگی مذهبی امام حسن مجتبی
شهرک گلستان (منطقه ۲۲)	ساختمان مسکونی آقای عبدالله وند	خیابان ونک	خیابان ونک	ساختمان شرکت بازرگانی مهندسی ایران
مرزداران	ساختمان مسکونی آقای عزیزی	بندر عباس	بندر عباس	ساختمان اداری ونک
پونک	ساختمان مسکونی آقای فیاضی	گیلانغرب	گیلانغرب	بیمارستان سوختگی بندر عباس
ونک	مجتمع اداری ونک	مرزداران	مرزداران	مجتمع فرهنگی مذهبی گیلانغرب
شهریار	ساختمان مسکونی آقای میرصدرایی			ساختمان مسکونی آقای هراتیان

## برخی از شرکای تجاری ما



چیلرهای مدولار اسکرال





چیلرهای مدلار DEKON در ظرفیت های 130kW و 100kW .66kW ساخته می شوند و امکان نصب مدلار آن ها تا ۱۶ دستگاه وجود دارد.



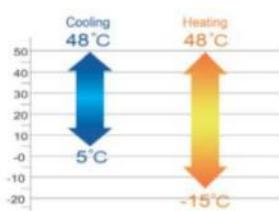
این چیلرها، مطابق استاندارهای روز دنیا در حفظ محیط زیست، با مبرد R410A شارژ می شوند



ضریب عملکرد دستگاه بالای ۳/۱ است و دارای استاندارد CE اروپا است.



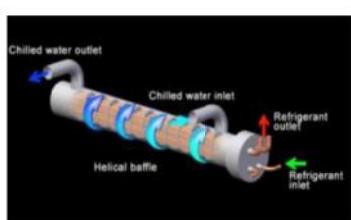
استفاده از دیغیویزر در خروجی فن ها جهت کاهش افت خروجی و طراحی بهینه کندانسور به شکل V، سبب افزایش راندمان کندانسور و در نتیجه افزایش محدوده عملکرد دستگاه شده است.



دارای محدوده گسترده دمایی جهت عملکرد دستگاه



طراحی فشرده و کاهش سطح اشغال



مبول پوسته لوله با راندمان بالا



استفاده از فن های داسی شکل که در مقایسه با فن های ساده حجم هوای بیشتری دارد و صدای کم تری تولید می کند.

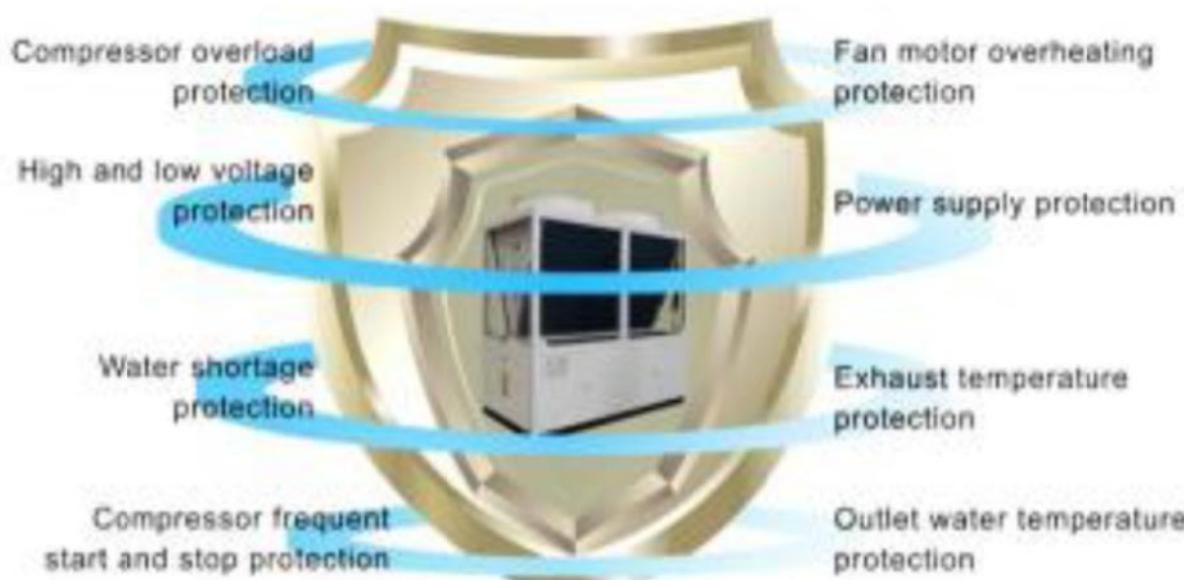


استفاده از شیر انبساط الکترونیک جهت کنترل دقیق جریان مبرد و افزایش راندمان



کنترل پیشرفته جهت جمع آوری اطلاعات سنسورها و سوئیچ های مختلف و کنترل بهینه اجزا دستگاه، دارای کنترل فاز داخلی، کنترل جریان، درگاه BMS ورودی USB جهت خدمات و رابط کاربری جامع و آسان

دارای سیستم ایمنی چند لایه و پیشرفته که می تواند از کمپرسور و سایر اجزا دستگاه در شرایط بحرانی حفاظت کرده و عملکرد پایدار دستگاه را ممکن سازد



Model	CA201XH	CA301XH	CA401XH	CA501XH	CA801XH	
Cooling capacity	kW TR	66 18.8	100 28.4	130 37.0	165 46.9	
	kW TR	70 19.9	110 31.3	140 39.8	180 51.2	
Heating capacity	%	0-50-100		0-25-50-75-100		
	Power supply*	380-415V 3N-50Hz		380V-3ph-50Hz		
Power input	Cooling Heating	kW kW	21.29 21.85	32.25 34.37	41.9 43.7	
	Cooling current Heating Current	A A	41.5 41.9	59.7 60.4	82.3 83.2	
Current	Max input current	A	50	80	100	
	Type	—	R410A		R410A	
Compressor	Type	—	Hermetic scroll		Scroll/Danfoss	
	Quantity	—	2	4	4	4
Water side heat exchanger	Type	—	High-efficient Shell and tube heat exchanger		High Efficient Shell & Tube Heat Exchanger	
	Water flow	m³/h	11.4	17.2	22.4	28.4
	Pressure drop	kPa	45	30	45	45
	Pipe connection dimension	—	DN65(Flanged joint)		DN80(Flange)	
Air side heat exchanger	Type	—	High-efficient aluminum fin-copper tube heat exchanger		Axial-flow	
	Fan type	—	—		—	
	Number of fans	—	2		4	
	Total fan air flow	m³/h	28000	43000	48000	60000
Dimension	Sound pressure level	dB(A)	65	68	69	70
	Unit(LxWxH)	mm	2200×860×2000	2200×1100×2205	2200×1100×2205	2200×1720×2100
	Package(LxWxH)	mm	2240×900×2000	2240×1140×2205	2240×1140×2205	2240×1760×2100
	Net weight	kg	580	900	1000	1420
Gross weight		kg	585	905	1005	1425
Operating weight		kg	640	980	1100	1550
Optional auxiliary electric heating		kW	18	27	32	43
						63



چیلهای Keyter اسپانیا



Spanish  
Technology



Spanish  
Technology

The large Keyter logo, which includes a stylized green leaf icon to the left of the word "Keyter" in a large, bold, lowercase, sans-serif font.





Region  
Marketing



ساخت اسپانیا، کیفیت و تکنولوژی روز اروپا

متوجه به محیط زیست و مطابق با ERP

دارای تیم تحقیق و توسعه متخصص از کارشناسان با تجربه اروپایی



استفاده از تامین کنندگان پیشرو جهت تامین قطعات اولیه



ضریب عملکرد دستگاه بالای ۳/۱ است و دارای استاندارد CE اروپا است

دارای دفاتر فروش گسترده در دنیا



# PACIFICA

CHILLERS AND HEAT PUMPS  
air-to-water



○  29 - 329 kW  
33 - 387 kW

○       50 Hz  
60 Hz

○   

○   

## Adaptation and Versatility

- Versions with hydraulic kit and built-in buffer tank to reduce the frequency of compressor stops and starts
- Condensing pressure control as standard for all year operation
- Adaptability to the facility offering a wide range of models
- Maximum accessibility and easy maintenance via removable panels
- PACIFICA MAXIMA** versions with R-134a refrigerant to deliver water at high temperatures up to +65°C

## Energy efficiency

- High partial and full load efficiency, reducing operating costs
- Compliance with ErP 2018 and ErP 2021
- NEW** inverter compressors in the **PACIFICA INVERTER** range for maximum energy efficiency
- Electronic fans and electronic expansion valves for minimal energy consumption
- NEW** hot gas partial and full heat reclaim system for **sanitary hot water**
- MULTIPIPE** units available for simultaneous delivery of cooling and heating
- Water Free-cooling system for free-cooling

## Low noise level

- Compressors in a closed compartment, isolated from the airflow (except series 2 to 5) available with an acoustic jacket
- Low speed condensation axial fans and oversized outdoor coils resulting in improved efficiency and a very low noise level
- EC axial fans with AxiTop diffusers for a very low noise level

## Environment

- Optimised design for reduced refrigerant charge R-410A (ODP 0, GWP 2088)
- NEW** availability of units with R-452B refrigerant (ODP 0, GWP 676)

## Easy control

- CAREL** supervision and electronic control with high performance and easy operation
- Wide variety of communication protocols (Modbus, BACnet and LonWorks)

## Applications



## versions

### PACIFICA

20-189 kW/20-184 kW

Chillers equipped with multiscroll technology.



- Seasonal energy efficiency ratio for cooling (SEER)  $\eta_{s,c}$  2018  $\geq 149\%$



- Seasonal energy efficiency ratio for cooling (SEER)  $\eta_{s,c}$  2021  $\geq 161\%$

#### Seasonal energy efficiency



### PACIFICA INVERTER

39-170 kW/42-180 kW

Chillers equipped with INVERTER technology, an electronic expansion valve and variable-speed electronic fans to comply with the ErP 2021 regulation and guarantee maximum energy savings.



#### Seasonal energy efficiency



#### Hydraulic versions:

##### Keyter WE - Standard version (S)

Equipment with no hydraulic kit.

The WE units include as standard triple protection of plates heat exchanger, with flow switch, water anti-freeze protection and refrigerant anti-freeze protection.

##### Keyter WE - Version with hydraulic kit (P)

Hydraulic kit composed of a circulation pump suitable for water or glycol water to 0°C, expansion vessel, purge and closing valves, pressure gauges and a flow switch.

Low temperature kit is required for water temperatures below 0°C, the, which requires replacement of the pump and adds electrical heater on hydraulic elements to operate with water temperature up to -10°C.

##### Keyter WE - version with hydraulic kit and buffer tank (H)

Equipment designed with a hydraulic kit in addition to a buffer tank with an anti-freeze electrical heater to reduce compressors short cycling.

The hydraulic kit is built into the chassis of the unit for all models except the series 6, where the hydraulic kit is in a separate module but is delivered with the unit.

Optionally, a module independent to the unit may be delivered, with a 375 or 725 litre capacity buffer tank and anti-freeze electrical heater.

For water temperatures below 0°C, it is necessary to request the low-temperature kit for the hydraulic kit.



# PACIFICA

## technical data



28 - 43 kW

KWE models		2030	2035	2039	2045	2030	2035	2039	2045	
<b>Cooling only version (R)</b>										
	Cooling capacity (1)	kW	28.7	32.7	37.7	42.9	28.7	32.7	37.7	42.9
		TR	8.5	9.5	11	12.5	8.5	9.5	11	12.5
		kBTU/hr	97.9	111.6	128.6	146.4	97.9	111.6	128.6	146.4
	Power input (2)	kW	9.1	10.8	12.1	13.3	9.1	10.8	12.1	13.3
	EER (3)	W/W	3.1	3.0	3.1	3.2	3.1	3.0	3.1	3.2
		BTU/(Wxhr)	10.7	10.3	10.6	11.0	10.7	10.3	10.6	11.0
Cooling	ESEER (3)		4.2	4.1	4.1	4.2	4.2	4.1	4.1	4.2
	SEER (4)		4.0	4.0	4.0	4.1	4.6	4.7	4.3	4.5
	$\eta_{S,C}$ (5)		154%	153%	152%	158%	175%	179%	163%	172%
	SEPR (7°C) (6)		5.0	5.0	5.0	5.2	5.5	5.6	5.3	5.5
	SEPR (-8°C) (6)		3.1	3.1	3.1	3.2	3.6	3.7	3.3	3.6
	IPLV (7)	kW/TR	0.72	0.72	0.74	0.72	0.66	0.65	0.73	0.68
		BTU/(Wxhr)	16.5	16.5	16.0	16.5	17.7	18.0	16.4	17.3
<b>Heat pump version (J)</b>										
	Cooling capacity (1)	kW	27.8	31.7	36.5	41.6	27.8	31.7	36.5	41.6
	Power input (2)	kW	9.3	11.0	12.3	13.5	9.3	11.0	12.3	13.5
	EER (3)	W/W	3.0	2.9	3.0	3.1	3.0	2.9	3.0	3.1
	ESEER (3)		4.2	4.1	4.1	4.1	4.2	4.1	4.1	4.1
Cooling mode	SEER (4)		3.9	3.8	3.9	4.0	4.4	4.5	4.1	4.3
	$\eta_{S,C}$ (5)		147%	146%	146%	151%	168%	172%	157%	166%
	SEPR (7°C) (6)		4.9	4.8	4.9	5.0	5.4	5.4	5.1	5.3
	SEPR (-8°C) (6)		2.9	2.9	2.9	3.1	3.4	3.5	3.2	3.4
	IPLV (7)	kW/TR	0.75	0.76	0.78	0.76	0.69	0.67	0.75	0.71
		BTU/(Wxhr)	15.8	15.7	15.4	15.8	17.0	17.2	15.8	16.6
	Heating capacity (8)	kW	33.2	38.3	42.1	47.8	33.2	38.3	42.1	47.8
	Power input (2)	kW	9.0	10.7	12.0	13.1	9.0	10.7	12.0	13.1
Heating mode	COP (3)	W/W	3.7	3.6	3.5	3.6	3.7	3.6	3.5	3.6
	SCOP warmer climate (4)		3.9	3.8	3.7	3.8	4.4	4.3	4.1	3.9
	$\eta_{S,H}$ warmer climate (5)		148%	145%	140%	145%	166%	165%	157%	149%
	$\eta_{S,H}$ average climate with EC fan (5)		123%	120%	124%	128%	136%	133%	136%	131%
<b>Technical characteristics</b>										
Power supply						400 V/III/50 Hz with neutral				
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO <sub>2</sub>				R410A/2088				
	Type of compressor					Hermetic scroll, single version (option)				
	No. circuits/compressors		1/1	1/1	1/1	1/1	1/2	1/2	1/2	
	No. power stages		1	1	1	1	2	2	2	
Hydraulic circuit	Water flow	m <sup>3</sup> /h	4.9	5.6	6.5	7.4	4.9	5.6	6.5	
	Type of heat exchanger					Stainless steel brazed plates				
	Hydraulic connections		1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	
	Buffer tank capacity -vers. H	litres				150				
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	14000	14000	19500	19500	14000	14000	19500	
	No. x Type of fan					1 x Axial 800 AC				
	Fan speed	rpm	660/480	660/480	900/700	900/700	660/480	660/480	900/700	
Noise Level	Equipment sound pressure (Lp10) (9) dB(A)		44.4	45.7	46.9	48.4	44.4	45.7	46.9	
Weights	Empty weight	kg	343	345	360	415	343	345	360	
	In-service weight	kg	356	358.5	374	431	356	358.5	374	

(1) Nominal cooling capacity for a water inlet/outlet temp. 12/7°C and outdoor air temp. 35°C.

(2) Nominal power input by compressors and outdoor fans.

(3) EER, COP and ESEER calculated based on standard EN 14511-2013.

(4) Seasonal Energy Efficiency Ratio (SEER) for cooling factor and seasonal coefficient of performance for heating (SCOP), calculated based on standard EN 14825:2013.

(5) Seasonal Energy Efficiency Ratio for cooling ( $\eta_{S,C}$ ) and heating ( $\eta_{S,H}$ ) of spaces, in line with Ecodesign Regulation EU 2016/2281.

Series 2 - S/P



Series 2-H





# PACIFICA

## technical data



50 - 81 kW

KWE models		2052	2060	2070	3052	3060	3070	4078	4090		
<b>Cooling only version (R)</b>											
	Cooling capacity (1)	kW	50.4	55.7	64.6	51.5	57.1	64.3	74.9	81.1	
		TR	14.5	16	18.5	15	16.5	18.5	21.5	23.5	
		kBTU/hr	172.1	190.2	220.5	175.7	194.8	219.3	255.5	276.7	
	Power input (2)	kW	14.6	17.7	21.6	14.5	17.5	21.1	23.1	27.4	
	EER (3)	W/W	3.4	3.2	3.0	3.6	3.3	3.0	3.2	3.0	
		BTU/(Wxhr)	11.8	10.8	10.2	12.1	11.1	10.4	11.1	10.1	
Cooling	ESEER (3)		4.7	4.3	4.3	4.8	4.8	4.8	4.9	4.5	
	SEER (4)		4.8	4.5	4.4	4.9	5.0	4.9	5.1	4.8	
	$\eta_{S,C}$ (5)		185%	172%	169%	190%	192%	189%	196%	182%	
	SEPR (7°C) (6)		5.8	5.5	5.5	5.9	6.0	5.9	6.1	5.8	
	SEPR (-8°C) (6)		3.9	3.6	3.5	4.0	4.1	4.0	4.2	3.9	
	IPLV (7)	kW/TR	0.64	0.69	0.69	0.62	0.63	0.63	0.62	0.66	
		BTU/(Wxhr)	18.6	17.2	17.1	19.0	18.6	18.2	18.7	17.4	
<b>Heat pump version (I)</b>											
	Cooling capacity (1)	kW	48.9	54.0	62.5	49.9	55.4	62.2	72.5	78.6	
	Power input (2)	kW	14.9	18.0	22.0	14.8	17.8	21.6	23.5	27.9	
	EER (3)	W/W	3.3	3.0	2.8	3.4	3.1	2.9	3.1	2.8	
	ESEER (3)		4.6	4.3	4.3	4.7	4.8	4.7	4.9	4.5	
Cooling mode	SEER (4)		4.6	4.3	4.2	4.7	4.8	4.7	4.9	4.6	
	$\eta_{S,C}$ (5)		177%	165%	162%	182%	185%	181%	188%	174%	
	SEPR (7°C) (6)		5.6	5.3	5.3	5.7	5.8	5.8	5.9	5.6	
	SEPR (-8°C) (6)		3.7	3.4	3.4	3.8	3.9	3.8	4.0	3.7	
	IPLV (7)	kW/TR	0.66	0.71	0.72	0.65	0.65	0.66	0.65	0.69	
		BTU/(Wxhr)	17.8	16.5	16.3	18.3	17.8	17.5	18.0	16.7	
	Heating capacity (8)	kW	55.6	65.5	73.1	55.7	66.4	74.3	83.7	92.0	
	Power input (2)	kW	15.6	17.2	21.0	15.6	17.2	20.8	22.8	27.0	
Heating mode	COP (3)	W/W	3.6	3.8	3.5	3.6	3.9	3.6	3.7	3.4	
	SCOP warmer climate (4)		4.7	4.9	4.6	4.7	5.0	4.7	4.8	4.4	
	$\eta_{S,H}$ warmer climate (5)		180%	189%	177%	180%	190%	181%	183%	168%	
	$\eta_{S,H}$ average climate with EC fan (5)		145%	155%	141%	146%	157%	145%	149%	136%	
<b>Technical characteristics</b>											
	Power supply						400 V/III/50 Hz with neutral				
	Refrigerant circuit	Refrigerant fluid/GWP	Kg CO <sub>2</sub>				R410A/2088				
		Type of compressor					Hermetic tandem scroll				
		No. circuits/compressors	1/2	1/2	1/2	1/2	1/2	1/2	1/2		
		No. power stages	2	2	2	2	2	2	2		
	Hydraulic circuit	Water flow	m <sup>3</sup> /h	8.7	9.6	11.1	8.9	9.8	11.1	12.9	14.0
		Type of heat exchanger					Stainless steel brazed plates				
		Hydraulic connections		2"	2"	2"	2"	2"	2"	2"	
		Buffer tank capacity -vers. H	litres	150			225			225	
	Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	19500	19500	19500	19500	19500	19500	19500	
		No. x Type of fan					1 x Axial 800 AC				
		Fan speed	rpm	900/700	900/700	900/700	900/700	900/700	900/700	900/700	
Noise Level		Equipment sound pressure (Lp10) (9)	dB(A)	47.8	52.6	52.6	47.8	52.6	52.3	53.8	55.6
Weights	Empty weight	kg	435	455	455	515	530	545	615	620	
	In-service weight	kg	452	473	473	532	548	565	637	643	

(6) Seasonal Energy Efficiency Ratio for chillers for the high temperature process in line with Ecodesign Regulation EU 2016/2281.

(7) Seasonal Energy Efficiency factor in line with ARI Standards 550/590.

(8) Nominal heating capacity for a water inlet/outlet temp. 40/45°C and outdoor air temp. 7°C DB/6°C WB.

(9) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

Series 3 and 4 - S/P



Series 3 and 4 - H



# PACIFICA

## technical data



95 - 157 kW

KWE models		5100	5120	6130	6140	6150	6160	6170	6180	
<b>Cooling only version (R)</b>										
	Cooling capacity (1)	kW	95.0	107.3	116.9	124.9	133.8	142.0	149.6	156.7
		TR	27	30.5	33.5	35.5	38	40.5	42.5	44.5
		kBTU/hr	324.1	366.1	398.7	426.3	456.4	484.4	510.5	534.6
	Power input (2)	kW	30.0	35.0	39.5	44.1	45.1	46.2	50.5	54.7
	EER (3)	W/W	3.2	3.1	3.0	2.8	3.0	3.1	3.0	2.9
		BTU/(Wxhr)	10.8	10.5	10.1	9.7	10.1	10.5	10.1	9.8
Cooling	ESEER (3)		5.3	5.0	4.7	4.8	4.9	5.0	4.8	4.7
	SEER (4)		5.2	5.2	4.6	4.5	4.7	4.8	4.7	4.5
	$\eta_{s,c}$ (5)		201%	201%	175%	173%	178%	183%	178%	173%
	SEPR (7°C) (6)		6.2	6.2	5.6	5.6	5.7	5.8	5.7	5.6
	SEPR (-8°C) (6)		4.3	4.3	3.7	3.7	3.8	3.9	3.8	3.7
	IPLV (7)	kW/TR	0.59	0.66	0.66	0.66	0.65	0.64	0.65	0.67
		BTU/(Wxhr)	20.3	19.8	18.1	17.9	18.3	18.6	18.2	17.7
<b>Heat pump version (I)</b>										
	Cooling capacity (1)	kW	93.6	105.8	115.2	123.1	131.8	139.9	-	-
	Power input (2)	kW	31.0	36.0	40.7	45.5	46.5	47.5	-	-
	EER (3)	W/W	3.0	2.9	2.8	2.7	2.8	2.9	-	-
	ESEER (3)		4.9	4.3	4.3	4.2	4.4	4.5	-	-
Cooling mode	SEER (4)		5.1	5.1	4.4	4.4	4.5	4.6	-	-
	$\eta_{s,c}$ (5)		194%	195%	169%	167%	173%	177%	-	-
	SEPR (7°C) (6)		6.1	6.1	5.5	5.4	5.6	5.7	-	-
	SEPR (-8°C) (6)		4.1	4.1	3.6	3.5	3.7	3.8	-	-
	IPLV (7)	kW/TR	0.61	0.61	0.68	0.69	0.67	0.66	-	-
		BTU/(Wxhr)	19.6	19.2	17.5	17.3	17.7	18.1	-	-
	Heating capacity (8)	kW	96.2	124.2	132.7	143.4	152.2	161.1	-	-
	Power input (2)	kW	31.2	35.8	39.2	43.8	44.7	45.5	-	-
Heating mode	COP (3)	W/W	3.1	3.5	3.4	3.3	3.4	3.5	-	-
	SCOP warmer climate (4)		4.0	4.4	4.1	4.0	4.2	4.3	-	-
	$\eta_{s,h}$ warmer climate (5)		153%	168%	156%	153%	159%	164%	-	-
	$\eta_{s,h}$ average climate with EC fan (5)		138%	156%	136%	131%	137%	142%	-	-
<b>Technical characteristics</b>										
Power supply							400 V/III/50 HZ with neutral			
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO <sub>2</sub>					R410A/2088			
	Type of compressor						Hermetic tandem scroll			
	No. circuits/compressors		2/4	2/4	2/4	2/4	2/4	2/4	2/4	
	No. power stages		4	4	4	4	4	4	4	
Hydraulic circuit	Water flow	m <sup>3</sup> /h	16.4	18.5	20.1	21.5	23.0	24.5	25.8	27.0
	Type of heat exchanger						Stainless steel brazed plates (standard)/Shell and tube (optional)			
	Hydraulic connections		2 1/2"	2 1/2"	DN 80	DN 80	DN 80	DN 80	DN 80	
	Buffer tank capacity -vers. H	litres	in separate module				375			
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	28000	39000	39000	39000	39000	39000	39000	
	No. x Type of fan						2 x Axial 800 AC			
	Fan speed	rpm	660/480	900/700	900/700	900/700	900/700	900/700	900/700	
Noise Level	Equipment sound pressure (Lp10) (9)	dB(A)	49.9	54.6	54.6	55.5	55.5	56.2	56.2	
Weights	Empty weight	kg	840	846	1048	1069	1096	1343	1354	
	In-service weight	kg	865	871	1074	1096	1123	1371	1383	
									1395	

(1) Nominal cooling capacity for a water inlet/outlet temp. 12/7°C and outdoor air temp. 35°C.

(2) Nominal power input by compressors and outdoor fans.

(3) EER, COP and ESEER calculated based on standard EN 14511-2013.

(4) Seasonal Energy Efficiency Ratio (SEER) for cooling factor and seasonal coefficient of performance for heating (SCOP), calculated based on standard EN 14825:2013.

(5) Seasonal Energy Efficiency Ratio for cooling ( $\eta_{s,c}$ ) and heating ( $\eta_{s,h}$ ) of spaces, in line with Ecodesign Regulation EU 2016/2281.

Series 5 - S/P



Series 61 - S/P





**Keyter**

# PACIFICA

## technical data

**Keyter**



160 - 318 kW

KWE models		6200	6210	6240	6270	6300	6340	6380
Cooling only version (R)								
Cooling capacity (1)	kW	162.6	187.8	213.2	235.7	262.4	289.2	317.9
	TR	46.5	53.5	61	67	75	82.5	90.5
	kBTU/hr	555.0	641.0	727.6	804.1	895.4	986.9	1084.7
Power input (2)	kW	54.4	58.9	67.0	75.3	85.2	98.1	111.1
EER (3)	(W/W)	3.0	3.2	3.2	3.1	3.1	2.9	2.9
	BTU/(Wxhr)	10.2	10.9	10.9	10.7	10.5	10.1	9.8
Cooling	ESEER (3)	5.1	5.4	5.4	5.3	5.4	5.2	5.0
	SEER (4)	4.7	5.0	5.1	5.1	5.1	5.0	5.0
	$\eta_{sc}$ (5)	178%	193%	195%	194%	198%	193%	191%
	SEPR (7°C) (6)	5.7	6.1	6.1	6.1	6.2	6.1	6.1
	SEPR (-8°C) (6)	3.8	4.2	4.2	4.2	4.3	4.2	4.1
	IPLV (7)	0.64	0.60	0.60	0.60	0.61	0.62	0.63
		BTU/(Wxhr)	18.4	19.7	19.6	19.3	19.0	18.8
Heat pump version (I)								
Cooling capacity (1)	kW	160.5	185.3	210.3	232.4	258.8	285.1	313.2
Power input (2)	kW	55.8	60.5	68.9	77.4	87.6	100.4	113.8
EER (3)	(W/W)	2.9	3.1	3.1	3.0	3.0	2.8	2.8
ESEER (3)		4.3	4.7	4.8	4.7	4.8	4.9	4.8
Cooling mode	SEER (4)	4.5	4.9	4.9	4.9	5.0	5.0	5.0
	$\eta_{sc}$ (5)	172%	187%	189%	188%	191%	193%	190%
	SEPR (7°C) (6)	5.6	5.9	6.0	6.0	6.1	6.1	6.0
	SEPR (-8°C) (6)	3.6	4.0	4.1	4.1	4.1	4.2	4.1
	IPLV (7)	0.66	0.62	0.62	0.62	0.63	0.62	0.63
		BTU/(Wxhr)	17.7	19.1	19.2	19.0	18.8	19.0
	Heating capacity (8)	kW	179.2	207.9	234.8	265.5	296.3	341.8
	Power input (2)	kW	51.1	59.1	66.0	74.2	84.0	96.3
Heating mode	CDP (3)	(W/W)	3.5	3.5	3.6	3.6	3.6	3.5
	SCOP warmer climate (4)		4.4	4.4	4.5	4.6	4.6	4.6
	$\eta_{sh}$ warmer climate (5)	166%	170%	173%	174%	171%	176%	178%
	$\eta_{sh}$ average climate with EC fan (5)	140%	141%	143%	144%	142%	142%	142%
Technical characteristics								
Power supply					400 V/III/50 Hz with neutral			
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO <sub>2</sub>			R410A/2088			
	Type of compressor				Hermetic tandem scroll			
	No. circuits/compressors	2/4	2/4	2/4	2/4	2/4	2/4	2/4
	No. power stages	4	4	4	4	4	4	4
Hydraulic circuit	Water flow	m <sup>3</sup> /h	28.0	32.4	36.7	40.6	45.2	49.8
	Type of heat exchanger				Stainless steel brazed plates (standard)/Shell and tube (optional)			
	Hydraulic connections		DN 80	DN 80	DN 80	DN 100	DN 100	DN 100
	Buffer tank capacity -vers. H	litres			375			
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	58500	58500	58500	58500	78000	83600
	No. x Type of fan			3 x Axial 800 AC		4 x Axial 800 AC	(2 AC + 2 EC) x Axial 800	
	Fan speed	rpm	900/700	900/700	900/700	900/700	900/700	900/700
Noise Level	Equipment sound pressure (Lp10) (9)	dB(A)	57.5	57.7	58	58.3	59.2	59.2
Weights	Empty weight	kg	1650	1750	1805	1865	2154	2205
	In-service weight	kg	1686	1786	1842	1903	2196	2249
								2310

(6) Seasonal Energy Efficiency Ratio for chillers for the high temperature process in line with Ecodesign Regulation EU 2016/2281.

(7) Seasonal Energy Efficiency factor in line with AHRI Standards 550/590.

(8) Nominal heating capacity for a water inlet/outlet temp. 40/45°C and outdoor air temp. 7°C DB/6°C WB.

(9) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

Series 62 - S/P



Series 63 - S/P



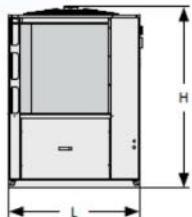
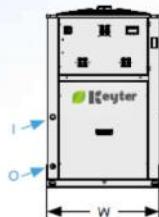


# PACIFICA

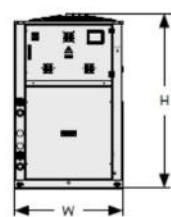
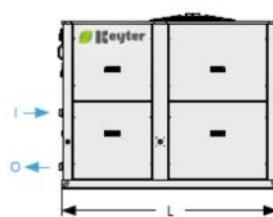
## dimensions

Dimensions of the standard version (S) and the version with hydraulic kit (P):

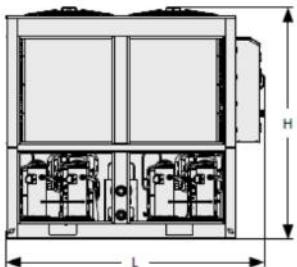
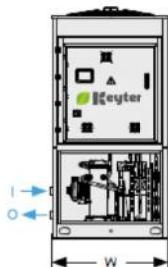
series 2



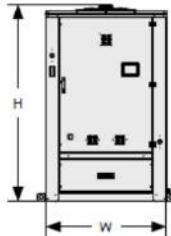
series 3-4



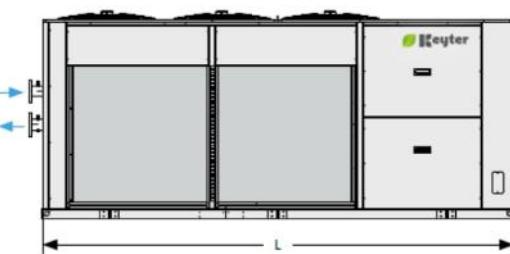
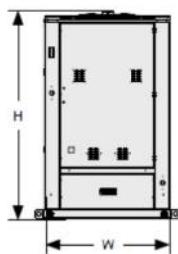
series 5



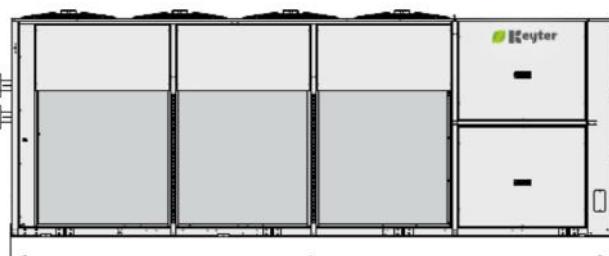
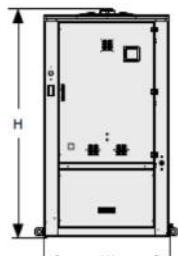
series 6 (models 6130 to 6180)



series 6 (models 6200 to 6270)



series 6 (models 6300 to 6380)



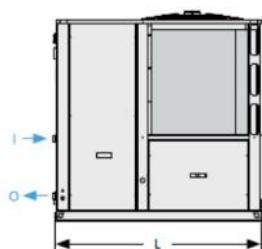
Dimensions of the standard version (S) and the version with hydraulic kit (P)

Series 2	Series 3	Series 4	Series 5 (version S)	Series 6 (models 61xx)	Series 6 (models 62xx)	Series 6 (models 63xx)
L	1200	2100	2100	2412	3470	4370
W	1050	1050	1050	1100	1100	1100
H	1725	1395	1695	2176	1795	1995

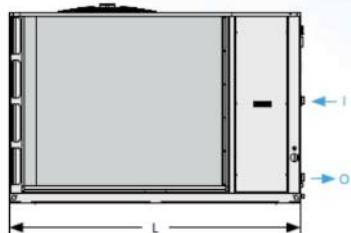
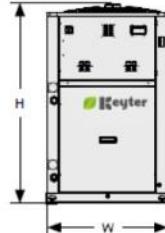
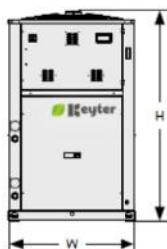
# PACIFICA dimensions

Dimensions of version with hydraulic kit and buffer tank (H):

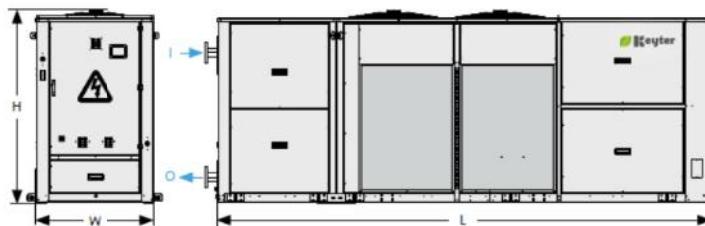
series 2



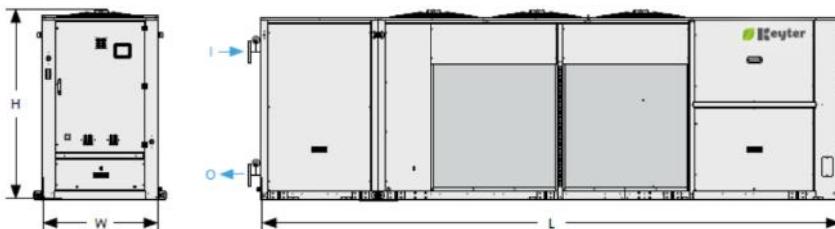
series 3-4



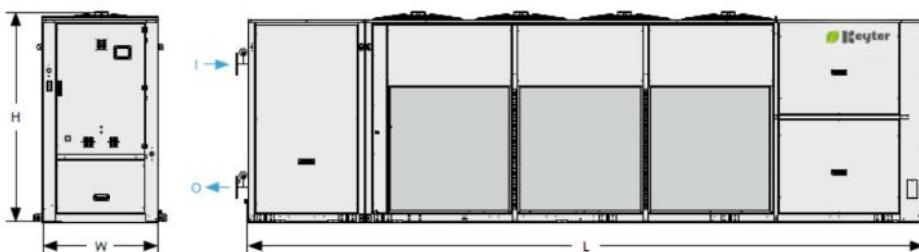
series 6 (models 6130 to 6180)



series 6 (models 6200 to 6270)



series 6 (models 6300 to 6380)



Dimensions of version with hydraulic unit and buffer tank (H)

	Series 2	Series 3	Series 4	Series 6 (models 61xx)	Series 6 (models 62xx)	Series 6 (models 63xx)
L	1700	2490	2490	4580	5480	6410
W	1050	1050	1050	1100	1100	1100
H	1725	1395	1695	1795	1795	1995

In series 5, the buffer tank is always assembled as an optional independent module.

For the option of an independent module with 375 L capacity buffer tank, see prod. dimensions.

For an independent module with 725 L capacity buffer tank, see module dimensions on page 105.

# PANGEA

CHILLERS  
air-to-water, screw



## Adaptation and Versatility

- NEW available in 5 different VERSIONS to suit the project requirements
- Equipped with a direct action screw compressor and low speed and with the latest generation shell and tube heat exchangers
- Wide operating range of units available up to an outdoor temperature of 55°C
- Condensing pressure control as standard for all year operation
- Adaptability to the facility offering a wide range of models
- Maximum accessibility and easy maintenance via removable panels

## Energy efficiency

- High energy efficiency in partial and full load, reducing operating costs
- Compliance with ErP 2018 and ErP 2021
- NEW inverter screw compressor available as an option for maximum energy efficiency
- Electronic fans and electronic expansion valve for minimal energy consumption
- Hot gas partial heat reclaim system with plate heat exchanger for sanitary hot water

## Low noise level

- Low speed condensation axial fans and oversized outdoor coils
- EC axial fans with AxiTop diffusers as option, resulting in improved efficiency and a very low noise level
- NEW available in version with "X" AxiBlade system for a very low noise level, reducing up to 8 dB(A)

## Environment

- Optimised design for reduced refrigerant charge R-134a and low GWP refrigerants
- NEW availability of unit with low GWP refrigerants R-513A (ODP 0, GWP 573) and R-450A (ODP 0, GWP 574)
- NEW PANGEA ECO availability of unit with low GWP refrigerant R-1234ze (ODP 0, GWP <1)

## Easy control

- Electronic regulation and SIEMENS supervision for simple use and high performance
- Wide variety of communication protocols (Modbus, BACnet and LonWorks)

## Applications





## PANGEA versions



### Keyter PANGEA WT, versions H and V



#### version H

*High Efficiency*

Compact units

Axial fan, 800 EC + AxiTop

#### Version V

*Very High Efficiency*

Oversized condensing coils

Axial fan, 800 EC + AxiTop

### Keyter PANGEA WT, version X



#### Version X

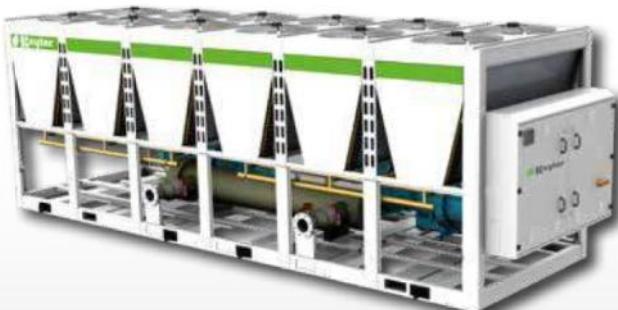
*EXtra High Efficiency*

Very low sound level

Oversized condensing coils

Axial fan 860, AxiBlade

### Keyter PANGEA WT, versions S and L



#### Version S

*Standard Efficiency*

Compact units

Axial fan, 800 AC

#### Version L

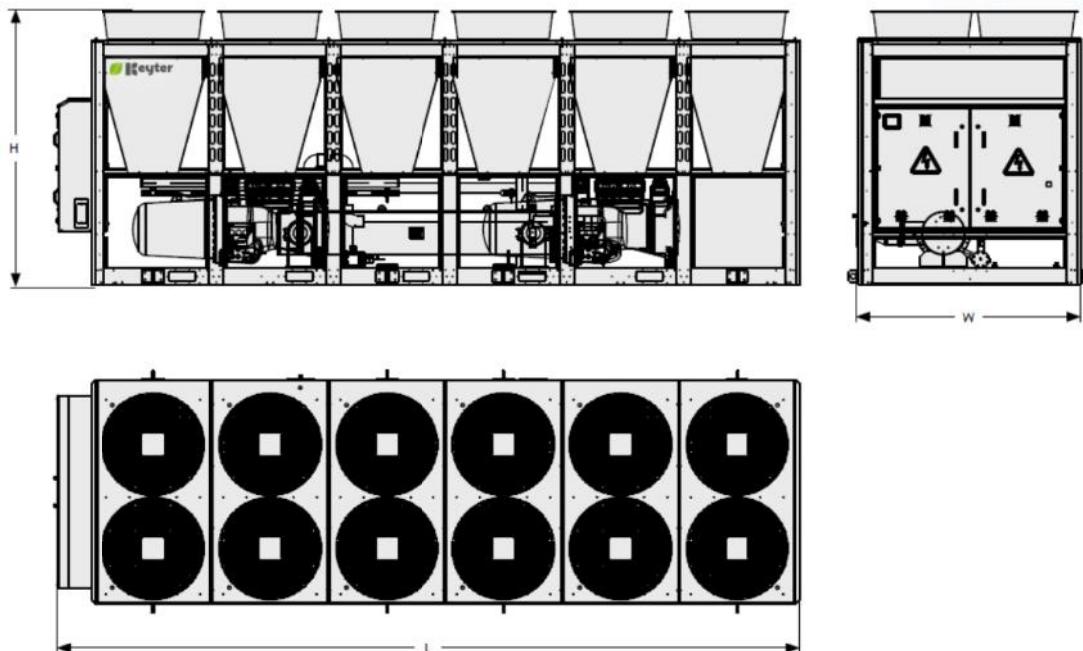
*Smart Efficiency*

Oversized condensing coils

Axial fan, 800 AC

# PANGEA dimensions

Dimensions (standard units without hydraulic kit):



Dimensions (versions S and H) in mm									
	Series 2	Series 3	Series 4	Series 5	Series 6	Series 7	Series 8	Series 9	Series X
L	2550	3650	4750	5850	6950	8050	9150	10250	11350
W					2100				
H - version S (without AxiTop)									
H - version H					2375				
Dimensions of Versions L, V and X (mm)									
	Series 3	Series 4	Series 5	Series 6	Series 7	Series 8	Series 9	Series X0	Series X2
L	3650	4750	5850	6950	8050	9150	10250	11350	13550
W					2100				
H - version L (without AxiTop)									
H - version V					2375				
H - version X					2575				
					2635				

AxiTop, standard for versions H and V, is a removable component and can be mounted during works.

In version S and L units with the AxiTop option, it is necessary to consider a height increase of 200 mm.

The hydraulic kit option with pump is delivered as an independent module (please see technical documentation).

## Electronic control:

Keyter PANGEA units include as standard AQUAMATIX programmable electronic control (Siemens Climatix control), specifically developed for the management of air-to-water and water-to-water units, with Climatix HMI user terminal.



AQUAMATIX



Climatix HMI terminal

# PANGEA version S technical data



282 - 1581 kW

KWT models - VERSION S	2075	3100	3125	4150	4160	5175	6210	6240	6260		
<b>Cooling only version (R)</b>											
Cooling capacity	kW (1)	282.1	374.4	464.9	527.1	564.2	657.4	748.7	839.3	929.9	
	TR (2)	75	100	125	150	160	175	210	240	260	
	kBTU/hr (2)	900	1200	1500	1800	1920	2100	2520	2880	3120	
Power input (3)	kW	113.4	155.2	186.7	221.0	226.6	268.5	310.9	342.2	373.9	
EER (4)	W/W	2.5	2.4	2.5	2.4	2.5	2.4	2.4	2.5	2.5	
	BTU/(Wxhr)	7.9	7.7	8.0	8.1	8.5	7.8	8.1	8.4	8.3	
SEER (5)		4.1	4.0	4.1	4.0	4.1	4.4	4.3	4.4	4.4	
$\eta_{S,C}$ (6)		155%	152%	155%	151%	155%	166%	165%	167%	168%	
IPLV (7)	BTU/(Wxhr)	17.0	16.3	17.0	16.0	17.0	16.7	16.3	16.7	17.0	
Maximum outdoor temperature	°C	41	44	43	43	41	41	43	43	43	
<b>Technical characteristics</b>											
Power supply							400 V/III/50 Hz without neutral				
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO <sub>2</sub>					R134a/1300				
	Type of compressor						Semi-Hermetic Compact Screw				
	No. circuits/compressors	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2		
	No. power stages	4	4	4	4	8	8	8	8		
Hydraulic circuit	Water flow	m <sup>3</sup> /h	48.6	64.5	80.1	90.8	97.2	113.2	129.0	144.6	160.2
	Type of heat exchanger						Shell and tube				
	Hydraulic connections		DN150 VIC	DN200 VIC	DN200 VIC	DN200 VIC					
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	80000	120000	120000	160000	160000	200000	240000	240000	240000
	Type - fan diameter						Axial, 800 AC				
	Number of fans		4	6	6	8	8	10	12	12	
Sound pressure (Lp10) (8)	dB(A)	60	61	60	64	63	63	66	65	66	
Dimensions	Length	mm	2550	3650	3650	4750	4750	5850	6950	6950	
	Width	mm					2100				
	Height	mm					2375				
Weight	kg	2650	3660	3680	4670	4700	5725	6765	6785	6800	

KWT models - VERSION S	7280	8300	9320	9350	9375	9400	X040	X045		
<b>Cooling only version (R)</b>										
Cooling capacity	kW (1)	992.1	1054.4	1122.7	1212.6	1304.0	1394.4	1457.0	1581.4	
	TR (2)	280	300	320	350	375	400	400	450	
	kBTU/hr (2)	3360	3600	3840	4200	4500	4800	4800	5400	
Power input (3)	kW	408.0	441.6	466.0	497.8	528.7	560.2	594.6	655.8	
EER (4)	W/W	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.4	
	BTU/(Wxhr)	16.7	16.0	16.3	16.7	17.0	17.0	16.7	16.3	
SEER (5)		4.3	4.3	4.6	4.6	4.7	4.7	4.7	4.6	
$\eta_{S,C}$ (6)		166%	164%	176%	177%	179%	180%	178%	176%	
IPLV (7)	BTU/(Wxhr)	0.49	0.47	0.48	0.49	0.50	0.50	0.49	0.48	
Maximum outdoor temperature	(°C)	43	43	43	43	43	43	43	43	
<b>Technical characteristics</b>										
Power supply					400 V/III/50 Hz without neutral					
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO <sub>2</sub>			R134a/1345					
	Type of compressor				Semi-Hermetic Compact Screw					
	No. circuits/compressors	2/2	2/2	3/3	3/3	3/3	3/3	3/3		
	No. power stages	8	8	12	12	12	12	12		
Hydraulic circuit	Water flow	m <sup>3</sup> /h	170.9	181.6	193.4	208.9	224.6	240.2	251.0	272.4
	Type of heat exchanger				Shell and tube					
	Hydraulic connections		DN200 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	280000	320000	360000	360000	360000	360000	400000	400000
	Type - fan diameter	mm				Axial, 800 AC				
	Number of fans		14	16	18	18	18	20	20	
Sound pressure (Lp10) (8)	dB(A)	69	60	61	60	64	63	63	66	
Dimensions	Length	mm	8050	9150	10250	10250	10250	11350	11350	
	Width	mm				2100				
	Height	mm				2375				
Weight	kg	7820	8845	9925	9940	9965	9985	10900	11050	

(1) Nominal cooling capacity for a water inlet/outlet temp. 12/7°C and outdoor air temp. 35°C.

(2) Cooling capacity under AHRI conditions.

(3) Nominal power input by compressors and outdoor fans.

(4) EER calculated based on EN 14511.

(5) Seasonal Energy Efficiency Ratio for cooling factor (SEER) calculated based on EN 14825:2013.

(6) Seasonal Energy Efficiency Ratio for cooling spaces ( $\eta_{S,C}$ ) in line with Ecodesign Regulation EU 2016/2281.

(7) Seasonal Energy Efficiency factor in line with AHRI Standards 550/590.

(8) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

# PANGEA version H technical data





294 - 1642 kW

KWT models - VERSION H		2075	3100	3125	4150	4160	5175	6210	6240	6260
<b>Cooling only version (R)</b>										
Cooling capacity	kW (1)	294.0	388.3	483.4	547.3	587.8	683.2	776.6	871.7	967.1
	TR (2)	75	100.0	125.0	150	160	175	210	240	260
	kBTU/hr (2)	900	1200	1500	1800	1920	2100	2520	2880	3120
Power input (3)	kW	106.9	145.2	176.8	208.5	213.5	252.0	290.9	322.4	354.1
EER (4)	W/W	2.8	2.7	2.7	2.6	2.8	2.7	2.7	2.7	2.7
	BTU/(Wxhr)	8.4	8.3	8.5	8.6	9.0	8.3	8.7	8.9	8.8
SEER (5)		4.3	4.3	4.3	4.2	4.3	4.6	4.6	4.6	4.6
$\eta_{sc}$ (6)		166%	163%	165%	161%	166%	177%	175%	177%	178%
IPLV (7)	BTU/(Wxhr)	19.7	19.0	19.4	18.4	19.7	19.4	18.7	19.0	19.4
Maximum outdoor temperature	(°C)	46	48	48	48	46	46	48	48	48
<b>Technical characteristics</b>										
Power supply							400 V/III/50 Hz without neutral			
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO <sub>2</sub>					R134a/1300			
	Type of compressor						Semi-Hermetic Compact Screw			
	No. circuits/compressors	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2
	No. power stages	4	4	4	4	8	8	8	8	8
Hydraulic circuit	Water flow	m <sup>3</sup> /h	50.6	66.9	83.3	94.3	101.2	117.7	133.8	150.2
	Type of heat exchanger						Shell and tube			
	Hydraulic connections		DN150 VIC	DN200 VIC	DN200 VIC	DN200 VIC				
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	96000	144000	144000	192000	192000	240000	288000	288000
	Type - fan diameter	mm					Axial 800 EC + Axitop			
	Number of fans	4	6	6	8	8	10	12	12	12
Sound pressure (Lp10) (8)	dB(A)	57	58	57	61	60	60	63	62	63
Dimensions	Length	mm	2550	3650	3650	4750	4750	5850	6950	6950
	Width	mm					2100			
	Height	mm					2575			
Weight	kg	2650	3660	3680	4670	4700	5725	6765	6785	6800

KWT models - VERSION H		7280	8300	9320	9350	9375	9400	X040	X045	
<b>Cooling only version (R)</b>										
Cooling capacity	kW (1)	1031.0	1094.9	1164.4	1259.0	1355.0	1450.1	1514.5	1642.3	
	TR (2)	280	300	320	350	375	400	400	450	
	kBTU/hr (2)	3360	3600	3840	4200	4500	4800	4800	5400	
Power input (3)	kW	385.7	416.8	436.0	467.9	499.0	530.6	562.4	619.3	
EER (4)	W/W	2.7	2.6	2.7	2.7	2.7	2.7	2.7	2.7	
	BTU/(Wxhr)	8.7	8.6	8.8	9.0	9.0	9.0	8.5	8.7	
SEER (5)		4.6	4.5	4.9	4.9	4.9	4.9	4.9	4.9	
$\eta_{sc}$ (6)		175%	174%	187%	188%	189%	189%	188%	186%	
IPLV (7)	BTU/(Wxhr)	19.0	18.4	18.7	19.0	19.4	19.4	19.0	18.7	
Maximum outdoor temperature	(°C)	48	48	48	48	48	47	47	47	
<b>Technical characteristics</b>										
Power supply							400 V/III/50 Hz without neutral			
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO <sub>2</sub>					R134a/1345			
	Type of compressor						Semi-Hermetic Compact Screw			
	No. circuits/compressors	2/2	2/2	3/3	3/3	3/3	3/3	3/3	3/3	
	No. power stages	8	8	12	12	12	12	12	12	
Hydraulic circuit	Water flow	m <sup>3</sup> /h	177.6	188.6	200.6	216.9	233.4	249.8	260.9	282.9
	Type of heat exchanger						Shell and tube			
	Hydraulic connections		DN200 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	336000	384000	432000	432000	432000	480000	480000	
	Type - fan diameter	mm					Axial 800 EC + Axitop			
	Number of fans	14	16	18	18	18	18	20	20	
Sound pressure (Lp10) (8)	dB(A)	66	57	58	57	61	60	60	63	
Dimensions	Length	mm	8050	9150	10250	10250	10250	11350	11350	
	Width	mm					2100			
	Height	mm					2575			
Weight	kg	7820	8845	9925	9940	9965	9985	10900	11050	

# PANGEA version L

## technical data



334 - 1565 kW

KWT models - VERSION L	3090	4120	4155	5170	6180	7200	8225	8250
<b>Cooling only version (R)</b>								
Cooling capacity								
kW (1)	333.6	411.2	521.2	594.3	669.7	743.7	822.4	937.0
TR (2)	90	120	155	170	180	200	225	250
kBTU/hr (2)	1080	1440	1860	2040	2160	2400	2700	3000
Power input (3)	kW	103.5	143.2	175.8	202.6	204.3	248.5	286.5
EER (4)	W/W	3.2	2.9	3.0	2.9	3.3	3.0	2.9
SEER (5)	BTU/(Wxhr)	10.4	10.1	10.6	10.1	10.6	9.7	9.4
ηs,c (6)		4.8	4.5	4.6	4.8	5.2	4.9	4.8
IPLV (7)	BTU/(Wxhr)	24.1	20.7	21.8	21.4	24.8	22.1	21.4
Maximum outdoor temperature	(°C)	47	47	47	47	47	47	47
<b>Technical characteristics</b>								
Power supply								
Refrigerant	Refrigerant fluid/GWP	Kg CO <sub>2</sub>	400 V/II/50 HZ without neutral					
circuit	Type of compressor		R134a/1300					
	No. circuits/compressors	1/1	1/1	1/1	1/1	2/2	2/2	2/2
	No. power stages	4	4	4	4	8	8	8
Hydraulic circuit	Water flow	m <sup>3</sup> /h	57.5	70.8	89.8	102.4	115.3	128.1
	Type of heat exchanger		Shell and tube					
	Hydraulic connections	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN200 VIC	DN200 VIC
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	120000	160000	160000	200000	240000	280000
	Type - fan diameter	mm	Axial, 800 AC					
	Number of fans	6	8	8	10	12	14	16
Sound pressure (Lp10) (8)	dB(A)	59	60	59	63	62	62	64
Dimensions	Length	mm	3650	4750	4750	5850	6950	8050
	Width	mm	2100					
	Height	mm	2375					
Weight	kg	3510	4450	4625	5425	6455	7520	8540

KWT models - VERSION L	8285	9300	X033	X235	X237	X240	X243
<b>Cooling only version (R)</b>							
Cooling capacity							
kW (1)	1043.5	1119.7	1184.7	1238.7	1349.9	1452.1	1565.2
TR (2)	285	300	330	350	370	400	430
kBTU/hr (2)	3420	3600	3960	4200	4440	4800	5160
Power input (3)	kW	352.9	379.0	408.5	429.8	467.3	498.0
EER (4)	W/W	3.0	3.0	2.9	2.9	2.9	3.0
SEER (5)	BTU/(Wxhr)	9.7	9.5	9.7	9.8	9.5	9.7
ηs,c (6)		4.9	5.2	5.1	5.1	5.1	5.2
IPLV (7)	BTU/(Wxhr)	21.76	21.76	21.08	20.74	21.08	21.76
Maximum outdoor temperature	(°C)	47	47	46	46	46	46
<b>Technical characteristics</b>							
Power supply							
Refrigerant	Refrigerant fluid/GWP	Kg CO <sub>2</sub>	400 V/II/50 HZ without neutral				
circuit	Type of compressor		R134a/1300				
	No. circuits/compressors	2/2	2/2	2/2	3/3	3/3	3/3
	No. power stages	8	8	8	12	12	12
Hydraulic circuit	Water flow	m <sup>3</sup> /h	179.7	192.9	204.1	213.4	232.5
	Type of heat exchanger		Shell and tube				
	Hydraulic connections	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	320000	360000	400000	480000	480000
	Type - fan diameter	mm	Axial, 800 AC				
	Number of fans	16	18	20	24	24	24
Sound pressure (Lp10) (8)	dB(A)	65	68	59	60	59	65
Dimensions	Length	mm	9150	10250	11350	13550	13550
	Width	mm	2100				
	Height	mm	2375				
Weight	kg	8860	9725	10525	13015	13255	13550

(1) Nominal cooling capacity for a water inlet/outlet temp. 12/7°C and outdoor air temp. 35°C.

(2) Cooling capacity under AHRI conditions.

(3) Nominal power input by compressors and outdoor fans.

(4) EER calculated based on EN 14511.

(5) Seasonal Energy Efficiency Ratio for cooling factor (SEER) calculated based on EN 14825:2013.

(6) Seasonal Energy Efficiency Ratio for cooling spaces (ηs,c) in line with Ecodesign Regulation EU 2016/2281.

(7) Seasonal Energy Efficiency factor in line with AHRI Standards 550/590.

(8) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

# PANGEA version V technical data




344 - 1617 kW

KWT models - VERSION V	3090	4120	4155	5170	6180	7200	8225	8250		
<b>Cooling only version (R)</b>										
Cooling capacity	kW (1)	344.1	424.1	538.4	613.1	690.2	767.6	848.3	967.4	
	TR (2)	90	120	155	170	180	200	225	250	
	kBTU/hr (2)	1080	1440	1860	2040	2160	2400	2700	3000	
Power input (3)	kW	97.7	133.8	166.5	191.4	192.9	233.1	267.5	301.9	
EER (4)	W/W	3.5	3.2	3.2	3.2	3.6	3.3	3.2	3.2	
	BTU/(Wxhr)	11.1	10.8	11.2	10.7	11.2	10.3	10.1	9.9	
SEER (5)		5.1	4.8	4.8	5.1	5.5	5.2	5.1	5.1	
Ƞs.c (6)		197%	182%	185%	197%	212%	200%	195%	197%	
IPLV (7)	BTU/(Wxhr)	27.2	23.8	24.5	24.1	27.5	24.8	23.8	24.1	
Maximum outdoor temperature	(°C)	49	49	49	49	49	49	49	49	
<b>Technical characteristics</b>										
Power supply					400 V/II/50 Hz without neutral					
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO <sub>2</sub>			R134a/1300					
	Type of compressor				Semi-Hermetic Compact Screw					
	No. circuits/compressors	1/1	1/1	1/1	1/1	2/2	2/2	2/2		
	No. power stages	4	4	4	4	8	8	8		
Hydraulic circuit	Water flow	m <sup>3</sup> /h	59.3	73.1	92.7	105.6	118.9	132.2	146.1	166.6
	Type of heat exchanger				Shell and tube					
	Hydraulic connections		DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN200 VIC	DN200 VIC	
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	144000	192000	192000	240000	288000	336000	384000	384000
	Type - fan diameter	mm			Axial 800 EC + AxiT					
	Number of fans	6	8	8	10	12	14	16	16	
Sound pressure (Lp10) (8)	dB(A)	53	54	53	57	56	56	59	58	
Dimensions	Length	mm	3650	4750	4750	5850	6950	8050	9150	9150
	Width	mm			2100					
	Height	mm			2575					
Weight	kg	3510	4450	4625	5425	6455	7520	8540	8750	

KWT models - VERSION V	8285	9300	X033	X235	X237	X240	X243		
<b>Cooling only version (R)</b>									
Cooling capacity	kW (1)	1078.1	1155.7	1222.5	1277.6	1393.7	1499.8	1617.2	
	TR (2)	285	300	330	350	370	400	430	
	kBTU/hr (2)	3420	3600	3960	4200	4440	4800	5160	
Power input (3)	kW	334.3	358.5	385.9	401.4	438.8	469.8	501.4	
EER (4)	W/W	3.2	3.2	3.2	3.2	3.2	3.2	3.2	
	BTU/(Wxhr)	10.2	10.0	10.3	10.5	10.1	10.2	10.3	
SEER (5)		5.1	5.4	5.4	5.4	5.4	5.4	5.4	
Ƞs.c (6)		197%	209%	207%	207%	207%	208%	209%	
IPLV (7)	BTU/(Wxhr)	24.14	24.14	23.80	23.80	23.80	23.80	24.14	
Maximum outdoor temperature	(°C)	49	49	49	49	49	49	48	
<b>Technical characteristics</b>									
Power supply				400 V/II/50 Hz without neutral					
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO <sub>2</sub>			R134a/1300				
	Type of compressor				Semi-Hermetic Compact Screw				
	No. circuits/compressors	2/2	2/2	2/2	3/3	3/3	3/3		
	No. power stages	8	8	8	12	12	12		
Hydraulic circuit	Water flow	m <sup>3</sup> /h	185.7	199.1	210.6	220.1	240.1	258.3	278.6
	Type of heat exchanger				Shell and tube				
	Hydraulic connections		DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	384000	432000	480000	576000	576000	576000	576000
	Type - fan diameter	mm			Axial 800 EC + AxiT				
	Number of fans	16	18	20	24	24	24	24	
Sound pressure (Lp10) (8)	dB(A)	59	62	53	54	53	57	59	
Dimensions	Length	mm	9150	10250	11350	13550	13550	13550	13550
	Width	mm			2100				
	Height	mm			2575				
Weight	kg	8860	9725	10525	13015	13255	13550	13750	

# PANGEA version X

## technical data



345 - 1620 kW

KWT models - VERSION X	3090	4120	4155	5170	6180	7200	8225	8250
<b>Cooling only version (R)</b>								
Cooling capacity								
kW (1)	344.6	424.8	539.5	614.1	691.1	768.9	849.6	969.1
TR (2)	90	120	155	170	180	200	225	250
kBTU/hr (2)	1080	1440	1860	2040	2160	2400	2700	3000
Power input (3)	kW	96.9	132.4	165.0	189.6	191.3	230.8	264.7
EER (4)	W/W	3.6	3.2	3.3	3.2	3.6	3.3	3.2
SEER (5)	BTU/(Wxhr)	11.1	10.9	11.3	10.8	11.3	10.4	10.0
η <sub>s,c</sub> (6)		5.1	4.8	4.9	5.1	5.5	5.2	5.1
IPLV (7)	BTU/(Wxhr)	27.5	24.1	24.8	24.5	27.9	25.2	24.1
Maximum outdoor temperature	(°C)	52	52	52	52	52	52	52
<b>Technical characteristics</b>								
Power supply								
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO <sub>2</sub>	400 V/III/50 HZ without neutral					
	Type of compressor		R134a/1300					
	No. circuits/compressors	1/1	1/1	1/1	1/1	2/2	2/2	2/2
	No. power stages	4	4	4	4	8	8	8
Hydraulic circuit	Water flow	m <sup>3</sup> /h	59.4	73.2	92.9	105.8	119.0	132.4
	Type of heat exchanger		Semi-Hermetic Compact Screw					
	Hydraulic connections	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN150 VIC	DN200 VIC	DN200 VIC
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	162000	216000	216000	270000	324000	378000
	Type - fan diameter	mm	Axial 860 EC AXIBLADE					
	Number of fans	6	8	8	10	12	14	16
Sound pressure (Lp10) (8)	dB(A)	55	56	55	59	58	58	60
Dimensions	Length	mm	3650	4750	4750	5850	6950	8050
	Width	mm	2100					
	Height	mm	2635					
Weight	kg	3510	4450	4625	5425	6455	7520	8540
2100								
2635								

KWT models - VERSION X	8285	9300	X033	X235	X237	X240	X243
<b>Cooling only version (R)</b>							
Cooling capacity							
kW (1)	1080.2	1157.7	1224.6	1279.6	1396.2	1502.7	1620.3
TR (2)	285	300	330	350	370	400	430
kBTU/hr (2)	3420	3600	3960	4200	4440	4800	5160
Power input (3)	kW	331.2	355.1	382.3	397.2	434.4	465.3
EER (4)	W/W	3.3	3.3	3.2	3.2	3.2	3.3
SEER (5)	BTU/(Wxhr)	10.3	10.1	10.4	10.6	10.2	10.4
η <sub>s,c</sub> (6)		5.2	5.5	5.4	5.4	5.4	5.5
IPLV (7)	BTU/(Wxhr)	24.48	24.48	24.14	24.14	24.14	24.48
Maximum outdoor temperature	(°C)	52	52	52	52	52	52
<b>Technical characteristics</b>							
Power supply							
Refrigerant circuit	Refrigerant fluid/GWP	Kg CO <sub>2</sub>	400 V/III/50 HZ without neutral				
	Type of compressor		R134a/1300				
	No. circuits/compressors	2/2	2/2	2/2	3/3	3/3	3/3
	No. power stages	8	8	8	12	12	12
Hydraulic circuit	Water flow	m <sup>3</sup> /h	186.1	199.4	210.9	220.4	240.5
	Type of heat exchanger		Semi-Hermetic Compact Screw				
	Hydraulic connections	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC	DN250 VIC
Outdoor fan	Outdoor airflow	m <sup>3</sup> /h	432000	486000	540000	648000	648000
	Type - fan diameter	mm	Axial 860 EC AXIBLADE				
	Number of fans	16	18	20	24	24	24
Sound pressure (Lp10) (8)	dB(A)	61	64	55	56	55	61
Dimensions	Length	mm	9150	10250	11350	13550	13550
	Width	mm	2100				
	Height	mm	2375				
Weight	kg	8860	9725	10525	13015	13255	13550
2100							
2375							

(1) Nominal cooling capacity for a water inlet/outlet temp. 12/7°C and outdoor air temp. 35°C.

(2) Cooling capacity under AHRI conditions.

(3) Nominal power input by compressors and outdoor fans.

(4) EER calculated based on EN 14511.

(5) Seasonal Energy Efficiency Ratio for cooling factor (SEER) calculated based on EN 14825:2013.

(6) Seasonal Energy Efficiency Ratio for cooling spaces (η<sub>s,c</sub>) in line with Ecodesign Regulation EU 2016/2281.

(7) Seasonal Energy Efficiency factor in line with AHRI Standards 550/590.

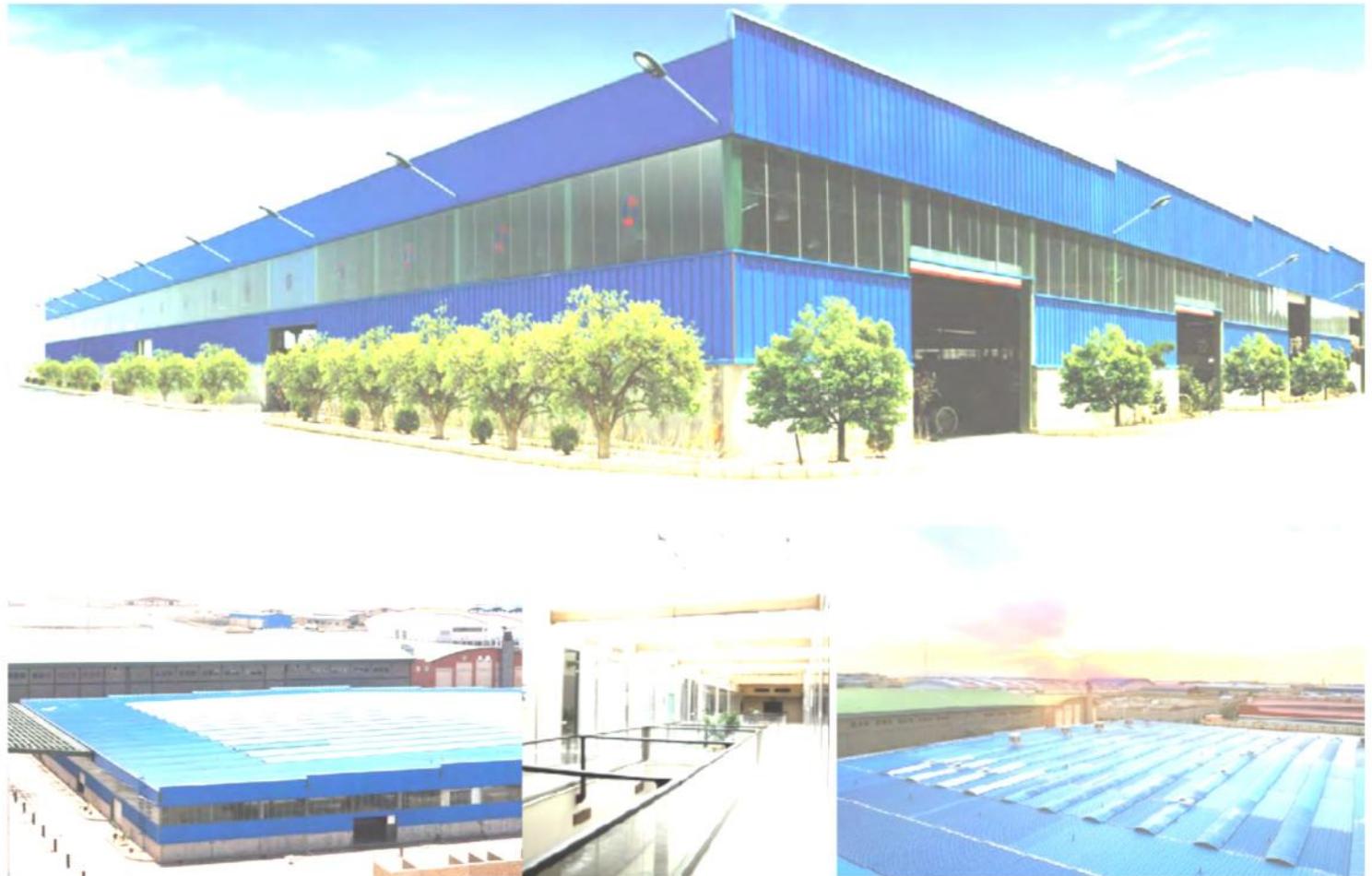
(8) Sound pressure level in dB(A) measured in a free field at 10 m from the source.

چیزهای صنعتی یکتا تهویه



یکتا تهويه ارونده با به کارگيري آخرین تكنولوجى روز و تيم مهندسي متخصص، از بزرگ ترین توليد كنندگان چيلرهای صنعتی در ايران است. يكta تهويه ارونده فعالیت خود را از سال ۱۹۸۵ آغاز کرده است و بیش از ۳۵ سال در زمینه ساخت سیستم های برودتی فعالیت می کند. کارخانه در شهرک صنعتی شمس آباد در مساحتی بالغ بر ۰۰۰۰۵ متر مربع واقع شده است. اکنون يكta تهويه ارونده به عنوان يك برنده تجاری معترض در بين توليد كنندگان داخلی مطرح است.

شرکت همچنان در تلاش است با جذب متخصصان حرفه ای و به کارگيري تكنولوجى های روز، مسیر پیشرفت خود را ادامه دهد. این شرکت علاوه بر بازه منتنوع محصولات خود، قادر است در پژوهه های صنعتی اقدام به ساخت دستگاه های سفارشی مبنی بر درخواست کارفرما نماید.



### Air Cooled Chiller

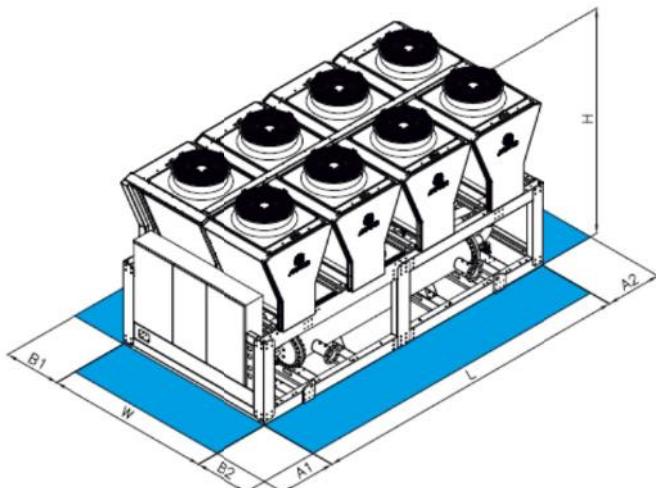
Cooling Only  
 Fin and Tube Condenser  
 DX Evaporator  
 Outdoor Installation  
 Capacity from 97 to 1918 kW



### Functions and Features



### Dimensions and Clearances



All Model		
A1	mm	1500
A2	mm	700
B1	mm	1200
B2	mm	1200

**Standard Noise**  
 Standard Ambient

MODEL A-CH-SWA-FT-SN-DX-C-1A-SA									
Cooling Capacity(1)	kW	112.2	130.4	183.2	207.0	226.0	238.0	241.5	264.4
	TR	31.9	37.1	52.1	58.9	64.3	67.7	68.7	74.2
Total Power Input(2)	kW	36.4	44.9	62.8	68.3	73.0	80.4	80.3	90.5
EER	kW/kW	3.08	2.90	2.92	3.03	3.09	2.96	2.90	2.92
Energy Class	Grade	B	B	B	B	B	B	B	B
	Type	#	qty.	#	1	1	1	2	2
Compressor	Circuit	#	1	1	1	2	1	2	1
	Power Input	kW	32.6	41.1	57.1	60.7	65.4	72.8	72.7
Evaporator	Charged refrigerant mass	kg	36	43	62	66	72	81	77
	Type	#	Water Flow Rate	l/s	5.3	6.2	8.7	9.9	10.8
	Water Pressure Drop	mH <sub>2</sub> O	5.2	2.4	2.5	3.7	5.2	4.2	5.9
	Water Connection Size(Nominal)	inches	2	3	3	3	4	3	4
	Water Volume	liter	94	94	137	151	137	137	216
Condenser	Type	#	Air Flow Rate	×10 <sup>3</sup> m <sup>3</sup> /hr	44.4	42.8	66.6	88.8	88.8
Fan	qty.	#	Air Flow Rate	×10 <sup>3</sup> m <sup>3</sup> /hr	44.4	42.8	66.6	88.8	85.6
Sound	Sound Power Level(3)	dB	98	98	98	98	98	98	98
	Sound Pressure Level(4)	dBA	79	79	79	79	79	79	79
	Maximum Ambient Temperature	°C							
Electrical	Power Supply	V/Ph/Hz							
	Length	mm	1200	1200	2400	2400	2400	2400	2400
Dimension & Weight	Width	mm	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	1750	1980	2760	2770	2830	3100	3360

Screw

Shell & Tube DX

Fin &amp; Tube

Axial

46

380-415/3/50



MODEL A-CH-SW-A-FT-SN-DX-C-1A-SA																
Cooling Capacity(1)		kW	697.7	733.5	794.5	856.6	912.1	966.4	1034.4	1087.8	1121.5	1227.8	1271.9	1466.6	1503	
Power Input		TR	198.4	208.6	226.0	243.6	259.4	274.9	294.2	309.4	319.0	349.2	361.7	417.1	427.2	
EER		kW/kW	218.5	236.4	250.3	270.8	292.7	314.4	335.9	355.5	377.0	407.6	414.3	461.6	465.9	
Energy Class		Grade	A	A	A	A	A	B	B	B	B	B	B	A	A	
Type	#	Screw														
Compressor	qty.	#	2	2	2	2	2	2	2	2	2	2	2	3	3	
Circuit	#	Circuit	2	2	2	2	2	2	2	2	2	2	2	3	3	
Power Input	kW	195.7	213.6	225.6	244.2	264.2	284.0	303.6	321.3	344.7	369.6	376.3	416.0	420.3		
Charged refrigerant mass		kg	226	238	264	290	307	324	347	366	376	410	433	475	485	
Water Flow Rate																
Evaporator	Water Pressure Drop	mH <sub>2</sub> O	3.3	4.9	4.3	4.6	5.2	5.8	4.2	4.6	4.9	2.8	3.3	4.3	4.2	
Water Connection Size(Nominal)		inches	5	5	5	6	6	6	6	6	6	6	6	6	6	
Water Volume		liter	663	585	663	605	605	605	876	876	876	1689	1334	1334	1689	
Condenser																
Air Flow Rate		#	12	12	13	14	15	16	17	18	17	20	20	24	24	
Fan		qty.	256.8	256.8	278.2	310.8	333	355.2	377.4	399.6	363.8	444	428	513.6	513.6	
Sound																
Sound Power Level(3)		dB	100	100	100	100	101	101	101	101	101	102	102	103	103	
Sound Pressure Level(4)		dBA	80	80	80	80	80	80	80	80	80	81	81	81	81	
Maximum Ambient Temperature																
Electrical	Power Supply	V/Ph/Hz	380~415/3/50													
Dimension & Weight	Length	mm	7200	7200	8400	8400	9600	9600	10800	10800	12000	12000	14400	14400	14400	
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	
	Weight	kg	7810	8100	8720	8510	9020	9240	9930	10110	10570	11780	12020	14450	14880	