

AIR COOLED CHILLER - HPS Series

AGHERE AGHERE



Introduction





Compressor

The combination of COPELAND Semi-Hermetic Scroll type With highly efficient performance

Anti Vibration Joint

Oil heater System (optional)

Dehumidifier filter dryer

Safety valve for protect compressor at high Pressure

Liquid Line Solenoid Valve

Liquid Line Pressure Switch and Pressure Transmitter

Evaporator

Shell and tube type including steel pipe for shell and copper tubes with 3/8 inch internal groove and compressive strength of 300 PSI

Tested in accordance ASME section VIII standard Special design for low pressure drop and optimized heat transfer

Water Strainer

Anti Freeze System

Condenser

Flat shaped style considering the optimization of the amount of space

With high efficiency and low pressure drop

Fin and Tube series

3/8" copper tube with up to 450 PSI compressive strength 12FPI number of Fin per Inch

Adiabatic Cooling system for Reducing of power input, that is based on the natural thermodynamic properties of water (optional)

Fan

Axial low noise model

Variable frequency drive for saving energy and reducing sound level (optional)

Sound reduction diffuser (optional)

EUROVENT trademark with "IP54" grading



Electrical and safety equipment

SIEMENS PLC

Ability to synchronize with BMS

Compatible with network connection protocols

DANFOSS trademark high pressure and low pressure sensor

Switch cabinet with IP54

Switch cabinet with SIEMENS trademark;

Main switching (optional), Phase control, Contactor, MSPS

UPS buffered controller to prevent damage during

operating (optional)

Light and socket in the switch cabinet

Alarm system for faults

PLC Programming

Automatic troubleshooting

Display the performance status of all control

parameters

Display operating hours

Display number of start times of compressors

separately

Complete observance of the operation schedule of the

compressors

Recording of the latest errors that have occurred

Body

Galvanized steel sheet with electrostatic paint coated Sound insulation for reducing sound level Manufactured with NC & CNC machines Air arteries on the columns of body to allow more air to pass through the condenser

Liquid Line Equipment

DANFOSS TEV

CASTEL trademark sight glass and filter dryer for

dehumidification refrigerant

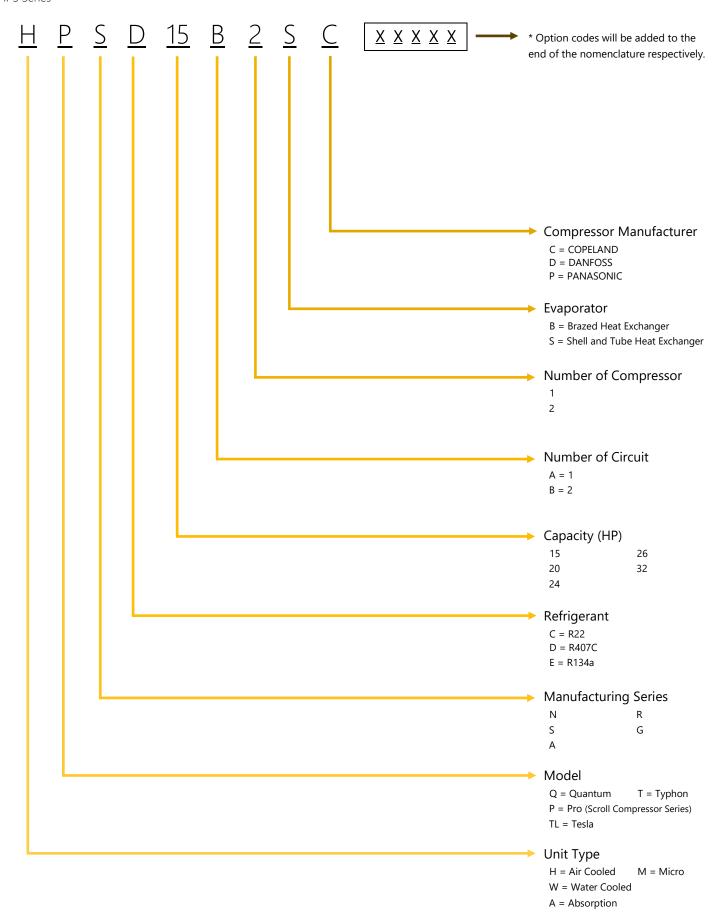
Liquid receiver with Rotolock valve





Nomenclature





POUR TO DE COMPANY

HPS Series

Standard Features

- This table contains a complete explanation of each parts used in units.

Item	Description	Product's Brand
Control Panel	 Controlling the unit circuit for the required closed loop. Providing the preview and the configuration of controlling system parameters to the user. Equipped with the advanced communication interfaces. Compatible with grid connection protocols. Displaying errors. 	SIEMENS
Phase Control	 Phase sequence and phase loss sensors are designed for the following measures: Protecting three-phase electric motors. Controlling the phase sequence, zero control in zero-based series, controlling each single phase with adjacent phase, and controlling each phase and zero to provide standard electricity input. Detecting the defections leading motor damages such as voltage failure in one or more phases or voltage imbalance between them. Preventing rotation of the motor the wrong way. 	SIEMENS
Terminals	 Acting as a connector or separator between electrical panel tray and other components of the device (in terms of electrical performance). 	KLEMSAN
Contactor	Connecting and disconnecting the electric current of the circuit.	SIEMENS
MSPS	Motor Safety Protection System to performs an electric motor: isolation. motor protection against overload and short circuit. control of the motor.	SIEMENS
Liquid Line	Includes: Sight Glass, Filter Dryer, Safety Valve, Bulb Valve.	CASTEL
Sensors	Includes: • Pressure Switch, Pressure Transmitter, Temperature Sensor.	DANFOSS
TEV	Thermal Expansion Valve: • Ensuring accurate control of refrigerant injection into the evaporator.	DANFOSS

⁻ All models are supplied with COPELAND scroll compressor trademark. Contact us for more data about other brands.



Standard Features

Item	Description	Product's Brand
Condenser ¹	• Fin and tube with 12FPI number of Fin per Inch including 3/8" copper tube and compressive strength of 450 PSI.	Royal Cool
Evaporator ¹	 Shell and tube type including steel pipe for shell and copper tubes with 3/8-inch internal groove and compressive strength of 300 PSI. Equipped with water flow switch, water strainer, Anti Freeze System. Tested in Accordance "ASME Section VIII" Standard. IT Trademark Insulator. 	REFKAR
Liquid Receiver	 Eliminating gas refrigerant. Ensuring that pure liquid refrigerant enters the expansion valve. Equipped with Rotolock valve for easier operation and maintenance. 	Royal Cool

^{1.} Powered by <u>UNILAB</u>

 $^{- \} All \ models \ are \ supplied \ with \ COPELAND \ scroll \ compressor \ trademark. \ Contact \ us \ for \ more \ data \ about \ other \ brands.$



Options

- This table includes information of equipment that their installation enhances the unit's efficiency.

Item	Description	Product's Brand
1. Soft Starter	 Reducing the mechanical stress and shocks caused by starts and stops to the compressor Controlling the consuming current of compressors and protecting them from the electrical overload Having the minimum amount of reactive power To perform a safe boot, three asynchronous phases are used Consistently controlling of the compressor voltage source in the operating stage The compressor is aligned with load behavior to accelerate the mechanical equipment's operation Increasing the life span 	SIEMENS
2. VFD Controller	 Controlling the fan speed. Reducing the fan sound level. Balancing the refrigerant pressure in the condenser. Increasing the compressor's life span. Preventing the frequent start / stops that damage the equipment. 	SIEMENS
3. Main Switch	Power Switch (On/Off).Controlling the input current to the device.	SIEMENS
4. Oil Heater	Preventing the mix of the refrigerant and the compressor oil.	-
5. Oil Separator	 Preventing the compressor oil discharge. Returning the oil to the compressor leading an automatic lubrication for the compressor's parts. Preventing the mix of the oil and the refrigerant which makes acid in the system. Protecting from corrosion. Protecting the compressor from damage. 	CASTEL
6. Accumulator	 Preventing the liquid refrigerant to enter the compressor. Reevaporating of collected refrigerant in Accumulator to enhance the compressor's efficiency. Protecting the compressor from damage. 	CASTEL

DE-CA-06-13

⁻ Option codes must be added to the end of the nomenclature and it is mandatory in the registration process.



Options

- This table includes information of equipment that their installation enhances the unit's efficiency.

Item	Description	Product's Brand
7. Economizer	 Increasing the efficiency by creating a sub-circuit. Improving the system performance. Energy saving. Utilizing brazed plate heat exchanger. 	KELVION (Heat Exchanger)
8. Adiabatic Cooling system	 10cm Thickness cellulose pads waterfall system with semi-closed circuit and controlling ambient air temperature system to prevent water loss. The air temperature reduction can reach as much as 15 °C depending on the ambient air enthalpy conditions. 	Royal Cool
9. Switch Cabinet	A. UPS buffered controller to prevent damage during operating.B. Cooling system specially for switch cabinet.	-
10. Fan	Sound reduction diffuser.	EUROVENT

DE-CA-06-13

⁻ Option codes must be added to the end of the nomenclature and it is mandatory in the registration process.



In general, all refrigerant types are characterised by two numbers: Ozone Depletion Potential (ODP) and Global Warming Potential (GWP).



ODP values range from 0 to 1: the closest the ODP value is to 1, the more harmful the refrigerant is for the ozone layer. CFCs are generally characterised by a big ODP value, because they contain chlorine, which is accused of heavily contributing to the Ozone Depletion phenomenon. As a result, CFCs have been phased out of use nowadays.



GWP values range from 0 to several thousands: the bigger the GWP value is, the more harmful the refrigerant is for the global warming effect. In general, HCFCs have also been phased out since 2005, and only the chlorine free (zero ozone depletion) HFCs are allowed for use nowadays.



The table includes refrigerant properties that using in refrigeration circuit.

ASHRAE Number	Туре	Molecular Formula	ODP	GWP (100yr)
R-407C	HFC	23±2% CH ₂ F ₂ 25±2% C ₂ HF ₅ 52±2% C ₂ H ₂ F ₄	0	1774
R-134a	HFC	C ₂ H ₂ F ₄	0	1300
R-22	HCFC	CHCIF ₂	0.055	1760

⁻ Powered by Wikipedia.org





	Model No.		HPSD15B2SC	HPSD20B2SC	HPSD24B2SC
Cooling capacity		KW	42	54.6	63
Cooling Capacity		RT	11.9	15.5	17.9
1 Total input power		KW	13.7	19.1	21.2
Total rated current		Α	29.8	35.4	38.4
EER		-	3.10	2.86	3.00
Cooling capacity		KW	38.8	51	58.2
Cooling capacity		RT	11	14.5	16.5
2 Total input power		KW	15.4	21.1	23.4
Total rated current		Α	31.8	38.1	41.4
EER		-	2.50	2.42	2.50
ESEER		-	4.13	3.81	3.96
Туре		-		Shell and tube	
	Brand	-		REFKAR	
F	Material Commission	gpm	32.1	41.4	50
Evaporator	Water flow rate	m ³ /h	7.3	9.4	11.4
	Water pressure drop	kPa	10.1	8	12
	Max design pressure	Мра		0.8	
	Туре	-	Flat shape		
	Brand	-	Royal Cool		
Condenser	Heat exchanger	-		Aluminium fin	
	Number of rows	-	2 3		3
	Fins per inch	FPI		12	
	Туре	-	Axial fan		
	Brand	-	EUROVENT		
	Number	-		2	
Fan	Speed	rpm	1350	90	00
	Diameter	mm	600	80	00
	Air flow rate	m ³ /h	10000	220	000
	Discharge	Side/Top		Тор	
	Туре	-	9	Semi-Hermetic Scro	I
	Brand	-		COPELAND	
	Model	-	ZR94KCE-TFD	ZR125KCE-TFD	ZR144KCE-TFD
Compressor	Combination	Pieces		2	1
·	Oil type	-		POE RL32-3MAF	
	Oil charge amount	L	٥٦,٦	٣,	Γο
	Oil heater	-	-	• (Optional)	
Refrigerant Type		-		R407C	
Ambient temp. range		°C		21 ~ 46	
Command control system Type		-		SIEMENS PLC	
Sound pressure level		dB(A)		~ 70	
Power supply		Ø,V,Hz		3,400,50	
Dimension	WxHxD	mm	9V2x1F•9x10V7	9V2xIT	65xΓ171
Net weight		kg	~ 800		

1 : Chilled water inlet / outlet : 12 °C / 7 °C Outdoor ambient temp. : 35 °C DB Sea level : 4000 ft Fan input power included

Pump input power not included

2 : Chilled water inlet / outlet : 12 °C / 7 °C
Outdoor ambient temp. : ٤• °C DB
Sea level : 4000 ft
Fan input power included
Pump input power not included

- Evaporating SST : 4.1 °C
- Water side fouling factor : 0.000018 m^2 . $^{\circ}\text{C}$ / KW
- ESEER calculations is based on European standard.
- Measuring sound pressure level at "m away and ±3dB tolerance.
- The characteristics of water flow rate and water pressure drop are given based on case "1".



	Model No.		HPSD26B2SC	HPSD32B2SC
Cooling capacity		KW	67.4	79.6
		RT	19.2	22.6
Total input power		KW	23.6	27.6
Total rated current		Α	43.8	55.5
EER		-	2.86	2.88
Cooling consists	-	KW	62	73.6
Cooling capacity		RT	17.6	20.9
Total input power		KW	26.2	30.6
Total rated current		Α	47.1	59.1
EER		-	2.37	2.41
ESEER		-	3.91	3.88
	_Туре	-	Shell ar	nd tube
	Brand	-	REF	KAR
Evaporator	Water flow rate	gpm	51.1	60.3
Evaporator	vvater now rate	m³/h	11.6	13.7
	Water pressure drop	kPa	12.2	16.8
	Max design pressure	Мра	0.8	
	Туре	-	Flat s	shape
	Brand	-	Royal Cool	
Condenser	Heat exchanger	-	Aluminium fin	
	Number of rows	-	٣	
	Fins per inch	FPI	12	
	Туре	-	Axial fan	
	Brand	-	EURC	VENT
	Number	-		2
Fan	Speed	rpm	900	
	Diameter	mm	800	
	Air flow rate	m³/h		000
	Discharge	Side/Top		ор
	Туре	-		netic Scroll
	Brand	-	СОРЕ	
	Model	-	ZR160KCE-TFD	ZR190KCE-TFD
Compressor	Combination	Pieces		
	Oil type	-		32-3MAF
	Oil charge amount	L	3.37	3.38
	Oil heater	-		tional)
Refrigerant	Туре	-		07C
Ambient temp. range		°C		~ 46
Command control system Type		-		NS PLC
Sound pressure level		dB(A)	~ V•	~ 72
Power supply		Ø , V , Hz		0 , 50
Dimension	WxHxD	mm	9V2x1F6	
Net weight		kg	~ 8	300

1 : Chilled water inlet / outlet : 12 $^{\circ}$ C / 7 $^{\circ}$ C Outdoor ambient temp. : 35 $^{\circ}$ C DB

Sea level : 4000 ft

Fan input power included Pump input power not included 2 : Chilled water inlet / outlet : 12 $^{\circ}\text{C}$ / 7 $^{\circ}\text{C}$

Outdoor ambient temp. : E• °C DB

Sea level : 4000 ft

Fan input power included

Pump input power not included

- Evaporating SST : 4.1 °C
- Water side fouling factor : 0.000018 m^2 . $^{\circ}\text{C}$ / KW
- ESEER calculations is based on European standard.
- Measuring sound pressure level at $\mbox{\em rm}$ away and $\pm 3\mbox{\em dB}$ tolerance.
- The characteristics of water flow rate and water pressure drop are given based on case "1".



	Model No.		HPSC15B2SC	HPSC20B2SC	HPSC24B2SC
Cooling capacity		KW	43.2	57	64.8
		RT	12.3	16.2	18.4
Total input power		KW	13.4	19.2	21.2
Total rated current		Α	29	35	38.2
EER			3.20	3.00	3.10
Cooling capacity		KW	39.9	53.8	60.8
Cooling capacity		RT	11.3	15.3	17.3
Total input power		KW	14.8	21.2	23.4
Total rated current		Α	31	37.6	41.2
EER		-	2.70	2.50	2.60
ESEER	-	-	4.2	3.84	3.99
	Туре	-		Shell and tube	
	Brand	-		REFKAR	
F	Matau flaurusta	gpm	32.8	43.3	49.2
Evaporator	Water flow rate	m ³ /h	7.5	9.8	11.2
	Water pressure drop	kPa	12.5	9.2	13.9
	Max design pressure	Мра	0.8		
	Туре	-	Flat shape		
	Brand	-	Royal Cool		
Condenser	Heat exchanger	-		Aluminium fin	
	Number of rows	-	2	3	
	Fins per inch	FPI		12	
	Туре	-	Axial fan		
	Brand	-	EUROVENT		
	Number	-	2		
Fan	Speed	rpm	1350	90	00
	Diameter	mm	600	80	00
	Air flow rate	m ³ /h	10000	220	000
	Discharge	Side/Top		Тор	
	Туре	-	9	Semi-Hermetic Scro	II
	Brand	=		COPELAND	
	Model	-	ZR94KCE-TFD	ZR125KCE-TFD	ZR144KCE-TFI
Compressor	Combination	Pieces		2	
	Oil type	-		POE RL32-3MAF	
	Oil charge amount	L	٥٦,٦	٣,	Γ0
	Oil heater	=		• (Optional)	
Refrigerant	Туре	-	R22		
Ambient temp. range		°C	21 ~ 46		
Command control system	Туре	-	SIEMENS PLC		
Sound pressure level		dB(A)	~ 70		
Power supply		Ø , V , Hz		3 , 400 , 50	
Dimension	WxHxD	mm	9V2x1F•9x10V7		
Net weight		kg		~ 800	

1 : Chilled water inlet / outlet : 12 $^{\circ}$ C / 7 $^{\circ}$ C Outdoor ambient temp. : 35 $^{\circ}$ C DB

Sea level : 4000 ft

Fan input power included Pump input power not included 2 : Chilled water inlet / outlet : 12 $^{\circ}$ C / 7 $^{\circ}$ C

Outdoor ambient temp. : ٤• °C DB

Sea level : 4000 ft

Fan input power included

Pump input power not included

- Evaporating SST : 4.1 °C
- Water side fouling factor : 0.000018 m^2 . $^{\circ}\text{C}$ / KW
- ESEER calculations is based on European standard.
- Measuring sound pressure level at $\mbox{\em rm}$ away and $\pm 3\mbox{\em dB}$ tolerance.
- The characteristics of water flow rate and water pressure drop are given based on case "1".



	Model No.		HPSC26B2SC	HPSC32B2SC
Cooling capacity		KW	70	83
Cooling capacity		RT	19.9	23.6
Total input power		KW	23.4	27.6
Total rated current		Α	43	53.6
EER		-	3.00	3.00
Cooling consists		KW	65.2	77.4
Cooling capacity		RT	18.5	22.0
Total input power		KW	25.6	30.4
Total rated current		А	46.4	57.4
EER		-	2.50	2.50
ESEER	-	=	3.9	3.94
Туре		=	Shell ar	nd tube
	Brand	=	REF	KAR
	Water flow rate	gpm	53.2	63.1
Evaporator	water flow rate	m ³ /h	12.1	14.3
	Water pressure drop	kPa	14	19.1
	Max design pressure	Мра	0	.8
	Туре	=	Flat s	shape
	Brand	=	Royal Cool	
Condenser	Heat exchanger	=	Aluminium fin	
	Number of rows	=	٣	
	Fins per inch	FPI	12	
	Туре	-	Axia	l fan
	Brand	-	EURC	VENT
	Number	=	4	
Fan	Speed	rpm	90	00
	Diameter	mm	80	00
	Air flow rate	m³/h	22000	
	Discharge	Side/Top	To	эр
	Туре	=	Semi-Herr	netic Scroll
	Brand	-	COPE	LAND
	Model	-	ZR160KCE-TFD	ZR190KCE-TFD
Compressor	Combination	Pieces	1	Γ
	Oil type	-	POE RL3	32-3MAF
	Oil charge amount	L	3.37	3.38
	Oil heater	-	• (Op	tional)
Refrigerant Type		-	R	22
Ambient temp. range		°C	21 -	~ 46
Command control system	Туре	-	SIEME	NS PLC
Sound pressure level		dB(A)	~ V•	~ 72
Power supply		Ø , V , Hz	3 , 40	0,50
Dimension	WxHxD	mm	9V2xIF65xF171	
Net weight		kg		300

1 : Chilled water inlet / outlet : 12 $^{\circ}$ C / 7 $^{\circ}$ C Outdoor ambient temp. : 35 $^{\circ}$ C DB

Sea level : 4000 ft Fan input power included

Pump input power not included

2 : Chilled water inlet / outlet : 12 $^{\circ}$ C / 7 $^{\circ}$ C Outdoor ambient temp. : $^{\circ}$ C DB

Sea level: 4000 ft
Fan input power included
Pump input power not included

- Evaporating SST : 4.1 °C
- Water side fouling factor : 0.000018 m^2 . $^{\circ}\text{C}$ / KW
- $\ensuremath{\mathsf{ESEER}}$ calculations is based on European standard.
- Measuring sound pressure level at ${\tt Tm}$ away and ${\tt \pm 3dB}$ tolerance.
- The characteristics of water flow rate and water pressure drop are given based on case "1".



		Model No.		HPSE15B2SC	HPSE20B2SC	HPSE24B2SC
	Cooling capacity		KW	27.3	37.1	43
			RT	7.8	10.6	12.2
1	Total input power		KW	9.6	13.9	15.6
	Total rated current		Α	25.2	29	29.6
	EER		-	2.84	2.68	2.76
	Cooling capacity		KW	25.2	34.8	39.9
			RT	7.2	9.9	11.3
2	Total input power		KW	10.6	15	17
	Total rated current		Α	26.4	30.2	31.8
	EER		-	2.37	2.32	2.35
	ESEER		-	3.77	3.43	3.63
	Туре		_		Shell and tube	
		Brand	_		REFKAR	
	Evaporator	Water flow rate	gpm	20.7	28.2	32.7
	Evaporator	water now rate	m ³ /h	4.7	6.4	7.4
		Water pressure drop	kPa	9	9.5	12
		Max design pressure	Мра	0.8		
		Туре	-	Flat shape		
		Brand	-	Royal Cool		
	Condenser	Heat exchanger	-		Aluminium fin	
		Number of rows	-	2	3	
		Fins per inch	FPI		12	
		Туре	-	Axial fan		
		Brand	-	EUROVENT		
		Number	-	2		
	Fan	Speed	rpm	1350	90	00
		Diameter	mm	600	80	00
		Air flow rate	m ³ /h	10000	220	000
		Discharge	Side/Top		Тор	
		Type	-	9	Semi-Hermetic Scro	II
		Brand	-		COPELAND	
		Model	-	ZR94KCE-TFD	ZR125KCE-TFD	ZR144KCE-TFD
	Compressor	Combination	Pieces		2	1
	·	Oil type	_		POE RL32-3MAF	
		Oil charge amount	L	٥٦,٦	۳,	Γο
		Oil heater	-	-	• (Optional)	
	Refrigerant	Туре	-		R134a	
	Ambient temp. range	<u> </u>	°C		21 ~ 46	
	Command control system Type		=		SIEMENS PLC	
	Sound pressure level	, ,	dB(A)	~ 70		
	Power supply		Ø,V,Hz		3 , 400 , 50	
	Dimension	WxHxD	mm	9V2xIF•9x10V7	9V2xIF	65xΓ\71
	Net weight		kg		~ 800	
	- J		9			

1 : Chilled water inlet / outlet : 12 °C / 7 °C Outdoor ambient temp. : 35 °C DB

Sea level : 4000 ft Fan input power included Pump input power not included 2 : Chilled water inlet / outlet : 12 $^{\circ}$ C / 7 $^{\circ}$ C Outdoor ambient temp. : $^{\circ}$ C DB

Sea level : 4000 ft Fan input power included Pump input power not included

- Evaporating SST : 4.1 $^{\circ}\text{C}$
- Water side fouling factor : 0.000018 m^2 . $^{\circ}\text{C}$ / KW
- $\ensuremath{\mathsf{ESEER}}$ calculations is based on European standard.
- Measuring sound pressure level at $\mbox{\sc rm}$ away and $\pm 3\mbox{\sc dB}$ tolerance.
- The characteristics of water flow rate and water pressure drop are given based on case "1".

 $\label{prop:condition} \mbox{According to our innovation policy , some specifications may be change without prior notification.}$



	Model No.		HPSE26B2SC	HPSE32B2SC	
Cooling capacity		KW	46.2	55.2	
		RT	13.1	15.7	
Total input power		KW	16.9	20.2	
Total rated current		Α	36.2	48.6	
EER		-	2.73	2.73	
Cooling capacity	<u>-</u>	KW	43	51.6	
Cooling capacity		RT	12.2	14.7	
Total input power		KW	18.4	22	
Total rated current		А	38	50.2	
EER		-	2.34	2.35	
ESEER	-	-	3.55	3.56	
	Туре	-	Shell ar	nd tube	
	Brand	-	REFI	KAR	
Evanoratar	Mator flow rate	gpm	35.1	42.0	
Evaporator	Water flow rate	m ³ /h	8.0	9.5	
	Water pressure drop	kPa	14.5	18	
	Max design pressure	Мра	0.	8	
	_ Type	-	Flat s	hape	
	Brand	-	Royal	Cool	
Condenser	Heat exchanger	-	Alumin	ium fin	
	Number of rows	-	٣		
	Fins per inch	FPI	1:	12	
	Туре	-	Axial	fan	
	Brand	-	EURO	VENT	
	Number	-	2		
Fan	Speed	rpm	900		
	Diameter	mm	800		
	Air flow rate	m ³ /h	220	000	
	Discharge	Side/Top	To		
	Туре	-	Semi-Herm	netic Scroll	
	Brand	-	COPE		
	Model	-	ZR160KCE-TFD	ZR190KCE-TFD	
Compressor	Combination	Pieces	Γ		
	Oil type	-	POE RL3	2-3MAF	
	Oil charge amount	L	3.37	3.38	
	Oil heater	-	• (Opt	tional)	
Refrigerant	Туре	-	R13	34a	
Ambient temp. range		°C	21 ~	46	
Command control system Type		-	SIEMEN		
Sound pressure level		dB(A)	~ V•	~ 72	
Power supply		Ø , V , Hz	3 , 40	0 , 50	
Dimension	WxHxD	mm	9V2x1F6	55xΓ171	
Net weight		kg	~ 8	800	

1 : Chilled water inlet / outlet : 12 $^{\circ}$ C / 7 $^{\circ}$ C Outdoor ambient temp. : 35 $^{\circ}$ C DB

Outdoor ambient temp.: 35 °C E Sea level: 4000 ft Fan input power included Pump input power not included 2 : Chilled water inlet / outlet : 12 °C / 7 °C

Outdoor ambient temp. : $\xi \cdot {^{\circ}C}$ DB

Sea level : 4000 ft Fan input power included

Pump input power not included

- Evaporating SST : 4.1 °C
- Water side fouling factor : 0.000018 m^2 . $^{\circ}\text{C}$ / KW
- $\ensuremath{\mathsf{ESEER}}$ calculations is based on European standard.
- Measuring sound pressure level at $\mbox{\em rm}$ away and $\pm 3\mbox{\em dB}$ tolerance.
- The characteristics of water flow rate and water pressure drop are given based on case "1".

 $\label{prop:condition} \mbox{According to our innovation policy , some specifications may be change without prior notification.}$



Performance Data



Model No.	Ambient Temp.	Cooling Capacity (KW)	Power Input (KW)	Rated Current (A)	СОР
LUDGD45D0GG	30	44.6	12.3	28.2	3.6
	35	42.0	13.7	29.8	3.1
	37	40.8	14.4	30.6	2.8
HPSD15B2SC	40	38.8	15.4	31.8	2.5
	42	37.4	16.1	32.6	2.3
	46	34.4	17.6	34.6	2.0
	30	58.2	17.3	33.2	3.36
	35	54.6	19.1	35.4	2.86
LIDEDOORSE	37	53.2	19.9	36.4	2.68
HPSD20B2SC	40	51.0	21.1	38.1	2.41
	42	49.2	22.0	39.3	2.23
	46	45.8	23.9	41.9	1.92
	30	67.2	19.2	35.8	3.5
	35	63.0	21.2	38.4	3.0
HPSD24B2SC	37	61.0	22.2	39.4	2.7
HPSD24B23C	40	58.2	23.4	41.4	2.5
	42	56.2	24.6	42.8	2.3
	46	52.0	26.8	46.0	1.9
	30	72.8	21.4	41.1	3.40
	35	67.4	23.6	43.8	2.86
HPSD26B2SC	37	65.6	24.6	45.1	2.67
HP2D20B23C	40	62.0	26.2	47.1	2.37
	42	59.8	27.3	48.6	2.19
	46	55.2	29.7	51.9	1.86
HPSD32B2SC	30	85.2	25.0	52.6	3.41
	35	79.6	27.6	55.5	2.88
	37	77.4	28.8	56.9	2.69
	40	73.6	30.6	59.1	2.41
	42	71.2	31.9	60.6	2.23
	46	65.8	34.7	64.1	1.90

⁻ Chilled water inlet / outlet : 12 $^{\circ}\text{C}$ / 7 $^{\circ}\text{C}$



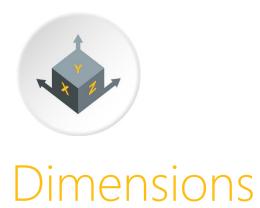
Model No.	Ambient Temp.	Cooling Capacity (KW)	Power Input (KW)	Rated Current (A)	СОР
	30	45.2	12.2	27.1	3.7
	35	43.2	13.4	29.0	3.2
	37	41.6	14.0	29.8	3.0
HPSC15B2SC	40	39.9	14.8	31.0	2.7
	42	38.7	15.4	32.0	2.5
	46	36.2	16.8	34.2	2.2
	30	60.0	17.6	32.8	3.4
	35	57.0	19.2	35.0	3.0
LIDECOORDEC	37	55.8	20.0	36.0	2.8
HPSC20B2SC	40	53.8	21.2	37.6	2.5
	42	52.4	22.0	38.6	2.4
	46	49.4	23.8	41.2	2.1
	30	68.6	19.4	35.4	3.5
	35	64.8	21.2	38.2	3.1
HPSC24B2SC	37	63.2	22.0	39.4	2.9
HPSC24B23C	40	60.8	23.4	41.2	2.6
	42	59.0	24.2	42.6	2.4
	46	55.4	26.2	45.6	2.1
	30	74.4	21.4	40.0	3.5
	35	70.0	23.4	43.0	3.0
HPSC26B2SC	37	68.2	24.3	44.4	2.8
HP3C20B23C	40	65.2	25.6	46.4	2.5
	42	63.2	26.8	48.0	2.4
	46	58.6	29.0	51.4	2.0
	30	88.2	25.2	50.4	3.5
HPSC32B2SC	35	83.0	27.6	53.6	3.0
	37	80.8	28.8	55.0	2.8
	40	77.4	30.4	57.4	2.5
	42	75.0	31.6	58.9	2.4
	46	69.6	34.2	62.4	2.0

⁻ Chilled water inlet / outlet : 12 $^{\circ}\text{C}$ / 7 $^{\circ}\text{C}$



Model No.	Ambient Temp.	Cooling Capacity (KW)	Power Input (KW)	Rated Current (A)	СОР
UDGE4EDOGG	30	29.3	8.8	24.4	3.33
	35	27.3	9.6	25.2	2.84
	37	26.5	10.0	25.8	2.65
HPSE15B2SC	40	25.2	10.6	26.4	2.37
	42	24.3	11.1	26.8	2.19
	46	22.5	12.0	27.8	1.88
	30	39.4	12.8	28.0	3.08
	35	37.1	13.9	29.0	2.68
LIDGESORSG	37	36.2	14.4	29.4	2.51
HPSE20B2SC	40	34.8	15.0	30.2	2.32
	42	33.8	15.5	30.8	2.18
	46	31.8	16.6	32.0	1.92
	30	45.8	14.2	27.8	3.23
	35	43.0	15.6	29.6	2.76
HPSE24B2SC	37	41.8	16.2	30.5	2.58
HPSE24B23C	40	39.9	17.0	31.8	2.35
	42	38.6	17.6	32.8	2.19
	46	35.9	19.0	34.9	1.89
	30	49.2	15.6	34.8	3.15
	35	46.2	16.9	36.2	2.73
HPSE26B2SC	37	45.0	17.4	37.0	2.59
HP3E20B23C	40	43.0	18.4	38.0	2.34
	42	41.6	19.2	38.6	2.17
	46	38.8	20.6	40.2	1.88
HPSE32B2SC	30	58.8	18.6	47.2	3.16
	35	55.2	20.2	48.6	2.73
	37	53.8	20.9	49.2	2.57
	40	51.6	22.0	50.2	2.35
	42	50.0	22.8	50.8	2.19
	46	46.8	24.8	52.4	1.89

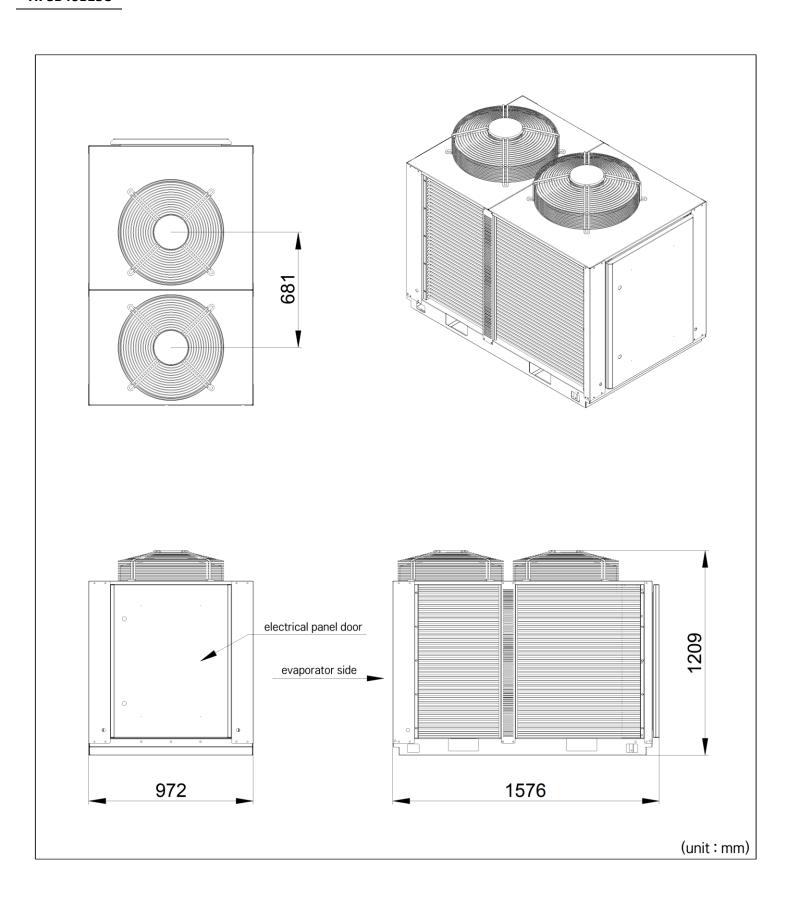
⁻ Chilled water inlet / outlet : 12 $^{\circ}\text{C}$ / 7 $^{\circ}\text{C}$



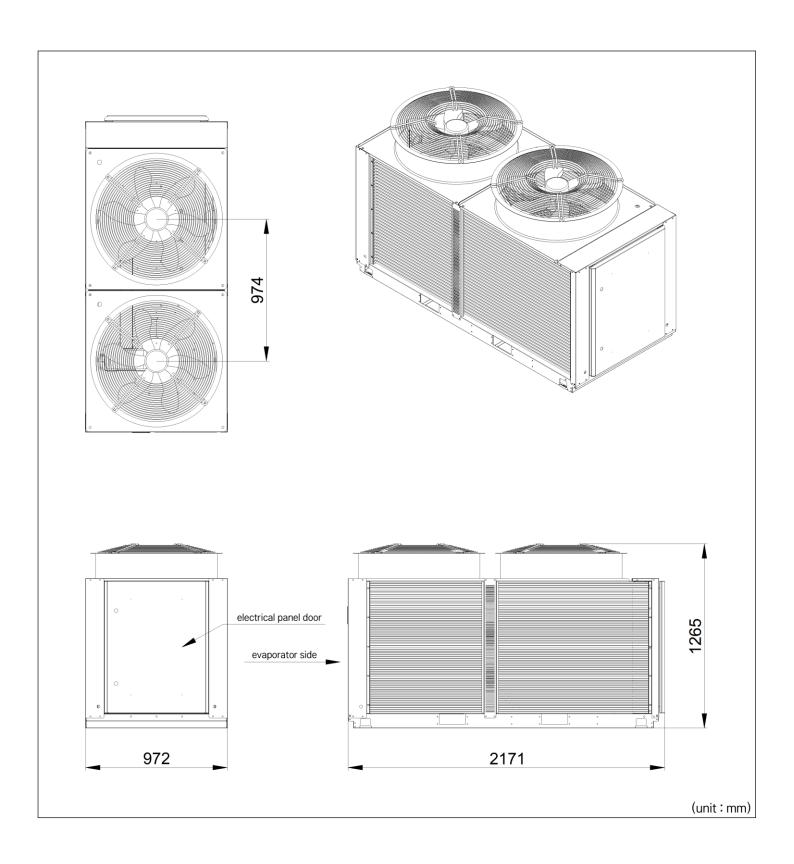
IROYAL COMPART

HPS Series

HPSD15B2SC



HPSD20B2SC - HPSD24B2SC - HPSD26B2SC - HPSD32B2SC



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