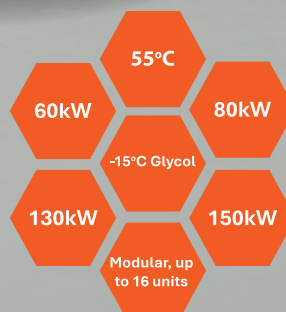


GREE HEAT PUMPS

C Series 3 n 1 Modular R32 Air-cooled Inverter Chiller



Find out more at www.greeac.co.nz

Gree C-Series 3n1 Modular R32 Inverter Air-cooled Chiller

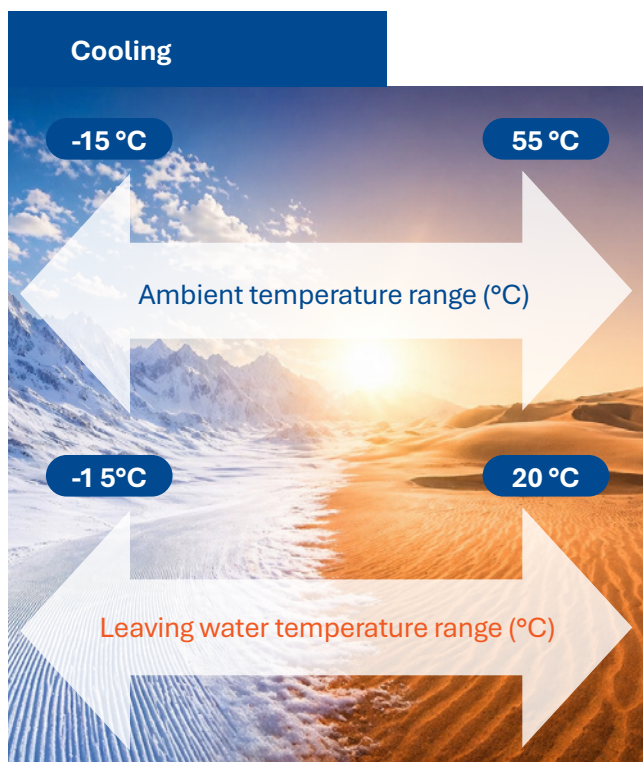
The Gree C-Series, 3n1 chillers have a compact design and can be combined, up to 2368kW nominal cooling. These chillers can be set up to provide both heating and cooling or cooling alone. The Gree C-Series can be widely used in new and retrofitted buildings of various sizes such as hotels, apartments, office buildings, shopping malls, theatres, gymnasiums, schools, factories, and hospitals. With the ability to cool all year round, and to provide a low temperature glycol mix down to -15°C , these chillers are also perfect for process cooling applications for cold stores, food processing areas, dairy processing, breweries, and wineries.

The Gree C-Series 3n1 chillers utilise R32 refrigerant which is better for the environment. The adoption of a stainless-steel brazed plate heat exchanger, coupled with a large G-shaped highly efficient air side heat exchanger, DC fan motors and all inverter compressors in parallel, the new Gree C-Series offers greater energy efficiency and better environmental performance.

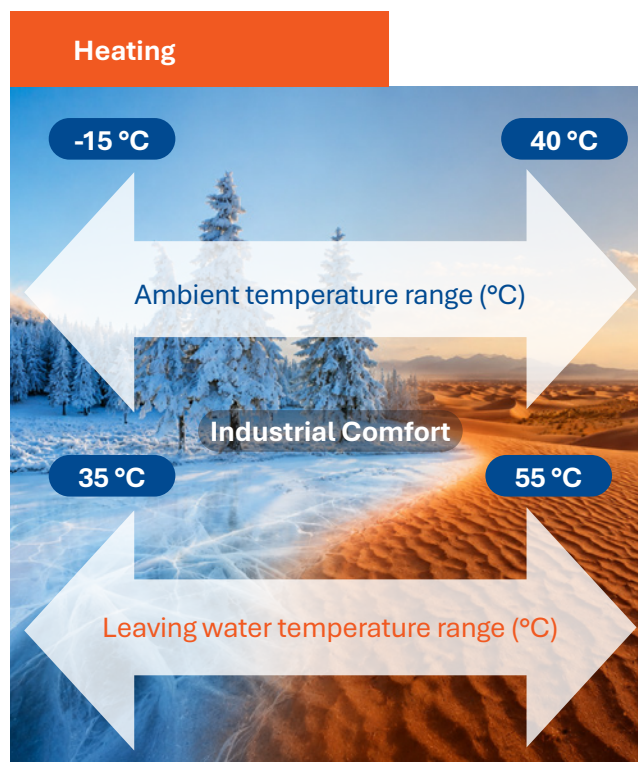


Operating Range

Year round Heating and Cooling with wide ambient operation.



Wide-round low-temperature cooling operation at -15°C ~ 55°C

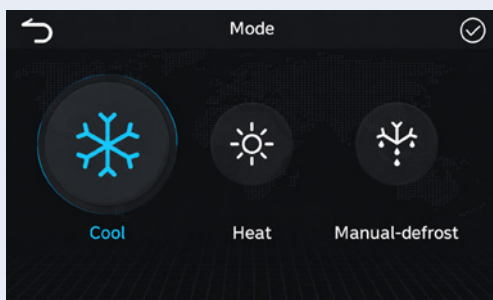


Wide-range reliable heating operation at -15°C ~ 40°C

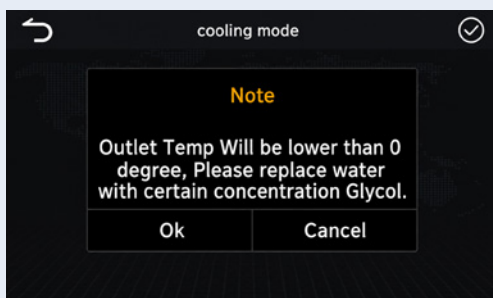
3 Modes of Operation

Flexibility is the key, with three operating modes in one chiller. All C-Series, 3n1 chillers can operate as a heat pump chiller offering both space heating and cooling. However, they can also be used to cool a glycol mix to -15deg C for industrial and process cooling.

This is all achieved off the same controller (CF1219); but to prevent mishaps, when the operation requested is set to “Industrial Cooling”, the control panel will alert the user that glycol must be added to prevent miss-operation. Connect up to 16 units to run together off one CF1219 controller which is fitted with integrated MODBUS.



Select the cooling mode



Raise a freeze protection alert



Select the “Industrial Cooling” mode

Design Aspects

Air side heat exchange uses high-efficiency black fin coil.



DC inverter motor.

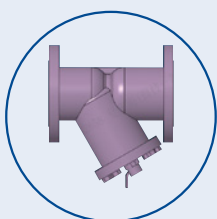
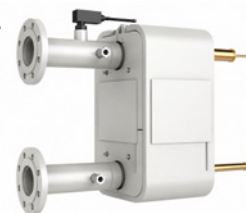
- Stepless speed control
- IP44 protection, reliable operation
- Independent developed axial fan blade with the largest diameter



All Inverter compressors in parallel.

- High precision stepless capacity control
- Reliable operation at -15°C~55°C

Water side heat exchanger: multi-channel distribution, 316 stainless plate heat exchange.



Brazed Plate Heat Exchanger Good Practice

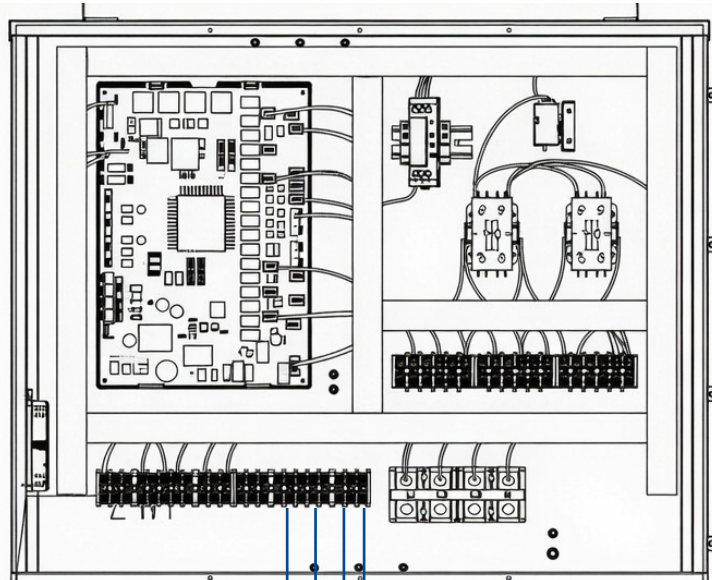
In order to prevent a blocked or fouled heat exchanger from affecting the performance and reliability of the chiller, Gree recommends that prior to connection, all external pipework should be pre-flushed with water, in both directions, to dislodge any debris that could foul the BPHE. An external water filter must be fitted to the water inlet of all C-Series chillers. Gree recommends a strainer with a size 30 mesh, (# of opening per inch) or 595 microns. Clean water should be used to fill the system. Do not use bore water. Clean glycol is also recommended.

* Filters and pumps are supplied separately.

Input Power Limit

Control by the dry contact switch

The dry contact switch enables unattended operation of the control cabinet, allowing remote start and stop, switching between heating and cooling modes, and load limiting to 50% or 75% capacity.



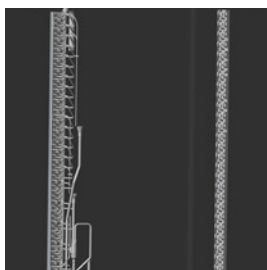
Heating switch

Cooling switch

50% control input energy saving switch

75% control input of energy saving switch

Corrosion Defence



Black fin coating giving

Strong anti-corrosive and weather resistance.

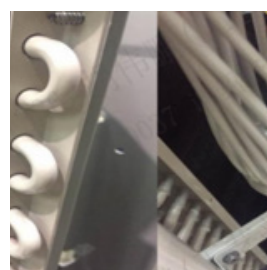
Tested for resistant to salt spray, acid rain, industrial pollution.



The resin process not only isolates the PCB board and components from media such as salt spray, dust, and water vapour, but also prevents mould growth, enabling the PCB board to have excellent weather resistance and superior electrical insulation performance.



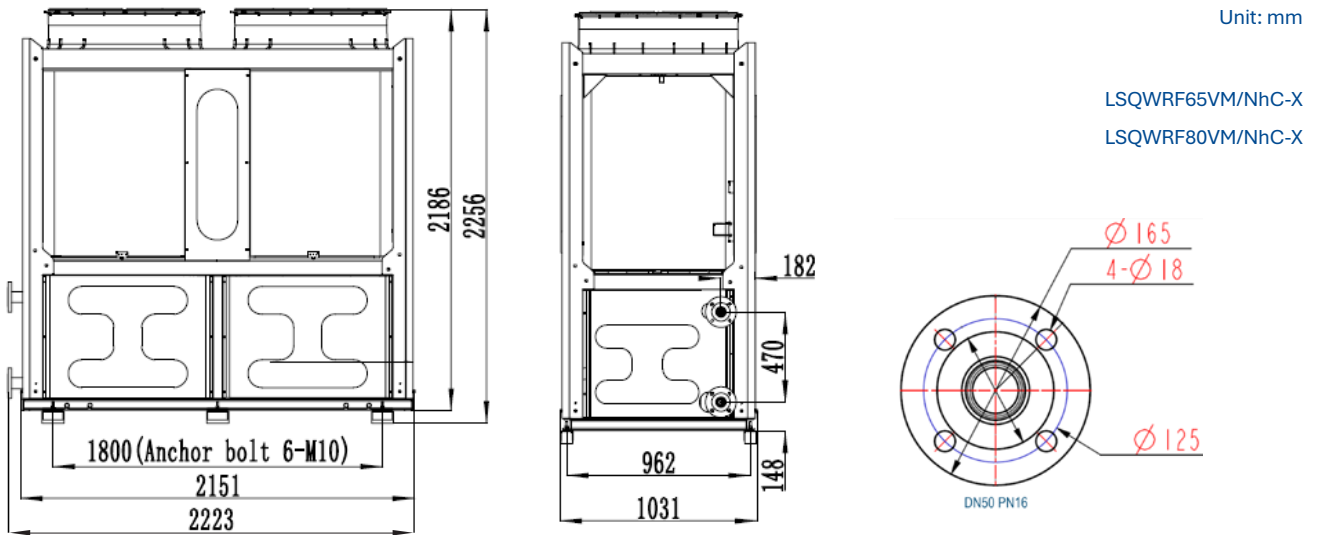
Spray special anti-corrosive paint on U-tubes, capillaries, liquid heads, etc. To strengthen the protection to these tubes.



Epoxy Zinc Phosphate primer+acrylic polyurethane top coat.

3n1 Chiller Capacity Compensation

Unit: mm



Note: The outline dimensions exclude the height of transport shock pads (70mm)

LSQWRF65VM/NhC-X: Heating					
Ambient Temperature	Leaving Water Temperature/°C				
	35	40	45	50	55
-15	45.1	42.3	39.7	-	-
-10	51	47.2	43.2	39.4	-
-5	51.9	48.2	44.5	40.9	-
0	66.1	62.7	59.1	56.1	-
5	78.1	74.8	72.1	71.1	70.1
7	80.8	78.6	76.5	74.3	72.1
10	83.2	81	78.7	76.5	74.3
15	88.9	86.5	83.6	81.7	79.8
20	68.6	66.5	64.3	62.2	60.2
25	58	57.2	56.2	55.2	54.2
30	54.3	53.4	52.6	51.5	50.5
35	50.8	50.3	49.3	48.2	47.2
40	56	54.2	53.2	52.1	51.1

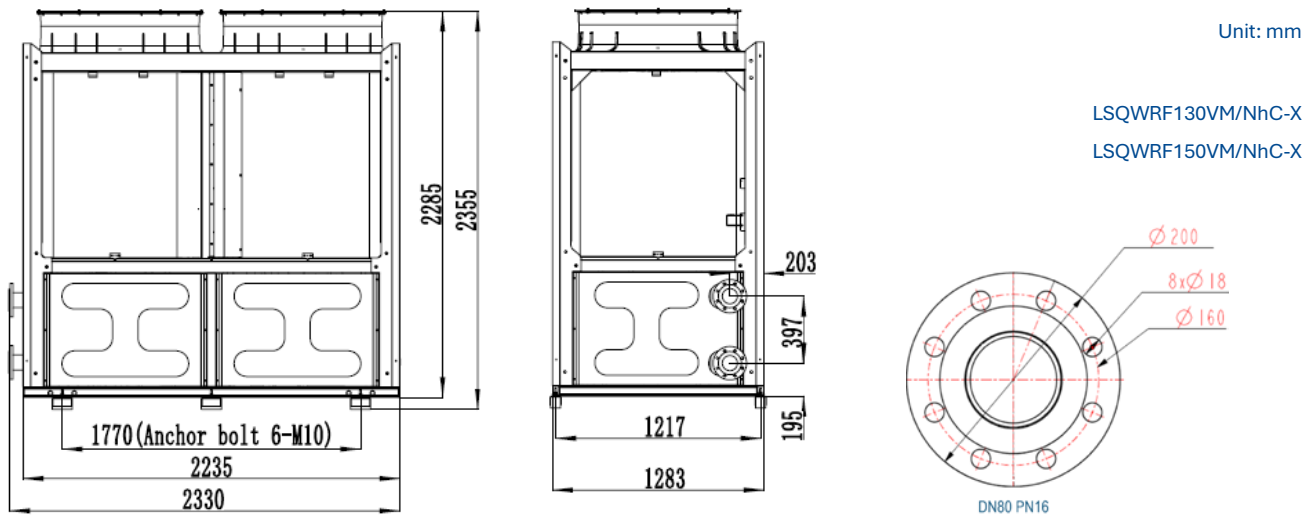
LSQWRF80VM/NhC-X: Heating					
Ambient Temperature	Leaving Water Temperature/°C				
	35	40	45	50	55
-15	53.1	49.8	46.7	-	-
-10	60.0	55.5	50.9	46.4	-
-5	61.1	56.7	52.4	48.1	-
0	77.8	73.8	69.5	66.0	-
5	91.9	88.1	84.8	83.6	82.4
7	95.1	92.5	90.0	87.4	84.9
10	97.9	95.3	92.6	90.0	87.4
15	104.6	101.8	98.4	96.1	93.9
20	80.7	78.2	75.7	73.2	70.8
25	68.2	67.2	66.1	64.9	63.7
30	63.8	62.8	61.9	60.6	59.4
35	59.8	59.2	58.1	56.8	55.5
40	65.9	63.8	62.6	61.3	60.1

LSQWRF65VM/NhC-X: Cooling									
Ambient Temperature	Leaving Water Temperature/°C								
	-15	-10	-5	0	5	7	10	15	20
-15	20.7	26.5	31.9	38.4	46.9	50.7	54.6	58.6	65
-10	22.2	28.5	34.3	41.3	50.4	54.6	58.7	63.1	70
-5	22.6	29	34.9	42.1	51.3	55.6	60	64.4	71.6
0	23	29.5	35.5	42.8	52.2	56.6	61.1	65.6	73
5	23.8	30.5	36.8	44.3	54.1	58.8	63.5	68.3	76
10	23.7	30.4	36.6	44.1	53.8	58.6	63.4	68.4	76.2
15	24.7	31.6	38.1	45.9	56	61.2	66.4	71.6	79.9
20	27.4	35.2	42.4	51	62.2	68.7	75.1	82.4	90.8
25	27	34.6	41.6	50.2	61.2	67.4	73.6	79.7	88.2
30	24.9	31.9	38.4	46.3	56.4	62.6	68.8	74.8	84.1
35	26.8	34.3	41.4	49.9	60.8	68	75.2	82.1	90.4
40	-	15.9	22.7	32.5	46.4	52.4	58.4	64.4	72.8
45	-	-	19	27.1	38.7	42	45.2	48.7	54.3
50	-	-	-	-	34.6	36.1	37.7	42.2	44.9
55	-	-	-	-	21.3	22.3	26.6	33.3	39.1

LSQWRF80VM/NhC-X: Cooling									
Ambient Temperature	Leaving Water Temperature/°C								
	-15	-10	-5	0	5	7	10	15	20
-15	24.3	31.2	37.5	45.2	55.2	59.7	64.2	68.9	76.5
-10	26.1	33.5	40.4	48.6	59.3	64.2	69.1	74.2	82.4
-5	26.6	34.1	41.1	49.5	60.3	65.4	70.5	75.8	84.2
0	27.1	34.7	41.8	50.3	61.4	66.6	71.9	77.2	85.9
5	28.0	35.9	43.3	52.2	63.6	69.1	74.7	80.3	89.4
10	27.9	35.8	43.1	51.9	63.3	69.0	74.6	80.5	89.7
15	29.0	37.2	44.8	54.0	65.8	72.0	78.1	84.2	94.0
20	32.3	41.4	49.8	60.0	73.2	80.8	88.3	97.0	106.8
25	31.7	40.7	49.0	59.0	72.0	79.3	86.5	93.8	103.8
30	29.2	37.5	45.2	54.4	66.4	73.7	80.9	87.9	98.9
35	31.5	40.4	48.7	58.6	71.5	80.0	88.5	96.5	106.4
40	-	18.7	26.8	38.2	54.6	61.7	68.8	75.7	85.7
45	-	-	22.3	31.9	45.5	49.4	53.2	57.3	63.9
50	-	-	-	-	40.7	42.5	44.3	49.6	52.9
55	-	-	-	-	25.1	26.2	31.3	39.1	46.0

3n1 Chiller Capacity Compensation

Unit: mm



Note: The outline dimensions exclude the height of transport shock pads (70mm)

LSQWRF130VM/NhC-X: Heating					
Ambient Temperature	Leaving Water Temperature/°C				
	35	40	45	50	55
-15	76.5	71.7	67.2	-	-
-10	88.0	81.4	74.6	68.0	-
-5	92.5	85.9	79.4	72.9	-
0	112.3	106.5	100.3	95.3	-
5	134.7	129.1	124.3	122.6	120.9
7	140.2	136.4	132.0	128.8	125.0
10	143.6	139.7	135.8	132.0	128.2
15	145.8	141.7	139.7	133.6	130.7
20	122.6	118.8	115.0	111.2	107.5
25	128.7	124.7	120.7	116.8	112.9
30	94.6	93.1	91.6	89.8	88.3
35	97.4	95.9	94.4	92.5	91.0
40	100.3	98.8	97.2	95.3	93.7

LSQWRF130VM/NhC-X: Cooling									
Ambient Temperature	Leaving Water Temperature/°C								
	-15	-10	-5	0	5	7	10	15	20
-15	38.7	49.6	59.8	72.1	87.9	95.1	102.3	109.8	121.9
-10	41.6	53.4	64.3	77.5	94.5	102.3	110.1	118.2	131.3
-5	42.4	54.3	65.4	78.8	96.2	104.3	112.4	120.8	134.2
0	43.1	55.3	66.6	80.2	97.8	106.2	114.5	123.0	136.8
5	44.7	57.3	69.0	83.1	101.4	110.2	119.0	128.0	142.5
10	44.5	57.0	68.7	82.7	100.9	109.9	118.9	128.2	142.9
15	47.0	60.3	72.6	87.5	106.7	119.4	134.0	150.8	168.3
20	51.4	65.9	79.4	95.7	116.7	128.7	140.7	154.5	170.2
25	48.9	62.7	75.5	91.0	111.0	122.2	133.5	144.6	161.9
30	47.1	60.3	72.7	87.6	106.8	118.6	130.3	141.5	159.2
35	49.3	63.2	76.2	91.8	111.9	128.8	138.4	151.1	163.1
40	-	50.5	60.9	73.3	89.4	101.0	112.6	124.0	140.3
45	-	-	47.6	57.3	69.9	75.8	81.8	88.0	98.2
50	-	-	-	-	58.4	61.1	63.7	71.3	76.0
55	-	-	-	-	35.1	36.7	43.8	54.8	64.3

LSQWRF150VM/NhC-X: Heating					
Ambient Temperature	Leaving Water Temperature/°C				
	35	40	45	50	55
-15	86.9	81.4	76.4	-	-
-10	100.0	92.5	84.8	77.3	-
-5	105.1	97.6	90.2	82.8	-
0	127.6	121.0	113.9	108.3	-
5	153.1	146.7	141.3	139.3	137.3
7	159.3	155.0	150.0	146.4	142.1
10	163.2	158.8	154.4	149.9	145.7
15	165.6	161.1	158.7	151.8	148.5
20	139.3	135.0	130.7	126.4	122.2
25	146.3	141.8	137.2	132.7	128.3
30	107.5	105.8	104.1	102.0	100.4
35	110.7	109.0	107.2	105.1	103.4
40	114.0	112.2	110.5	108.2	106.5

LSQWRF150VM/NhC-X: Cooling									
Ambient Temperature	Leaving Water Temperature/°C								
	-15	-10	-5	0	5	7	10	15	20
-15	44.5	57.1	68.8	82.8	101.0	109.3	117.6	126.2	140.1
-10	47.9	61.4	73.9	89.1	108.6	117.6	126.5	135.9	150.9
-5	48.7	62.4	75.2	90.6	110.5	119.9	129.2	138.8	154.2
0	49.5	63.5	76.5	92.2	112.5	122.1	131.7	141.3	157.3
5	51.3	65.8	79.3	95.5	116.5	126.6	136.8	147.1	163.8
10	51.1	65.5	78.9	95.1	116.0	126.3	136.7	147.4	164.3
15	54.0	69.3	83.5	100.6	122.7	137.2	154.0	173.4	193.4
20	59.1	75.8	91.3	110.0	134.1	147.9	161.7	177.6	195.7
25	56.2	72.1	86.8	104.6	127.6	140.5	153.4	166.3	186.1
30	54.1	69.4	83.6	100.7	122.8	136.3	149.8	162.7	183.0
35	56.7	72.7	87.5	105.5	128.6	148.0	159.1	173.6	187.4
40	-	58.1	70.0	84.3	102.8	116.1	129.4	142.5	161.3
45	-	-	54.7	65.9	80.3	87.2	94.0	101.1	112.9
50	-	-	-	-	67.2	70.2	73.2	81.9	87.3
55	-	-	-	-	40.4	42.2	50.3	62.9	73.9

Series Type		C-Series 3n1 Modular R32 Inverter Air Cooled Chiller				
Realcold Part Number		AC7841	AC7842	AC7843	AC7844	
Product Model		LSQWRF65VM/NhC-X	LSQWRF80VM/NhC-X	LSQWRF130VM/NhC-X	LSQWRF150VM/NhC-X	
Cooling Capacity	kW	65	78	130	148	
Heating Capacity	kW	75	90	145	165	
EER	W/W	3.20	3.00	3.16	2.95	
COP	W/W	3.35	3.16	3.30	3.10	
Capacity Adjustment Range	-	36%~100%		18%~100%		
Cooling Current Input Nominal	A	43.1		78.9		
Heating Current Input Nominal	A	45.2		86		
Rated Current	A	57		110		
Rated voltage	V/Hz/Ph	380~415/50/3				
Circuit Breaker	A	63		125		
Water-side Heat Exchanger	Type	- 316 Stainless Plate Heat Exchanger				
	Water Flow Volume	l/S	3.11	3.82	6.21	7.1
	Water Flow Volume	m3/h	11.18	13.76	22.36	25.8
	Water Flow Pressure Drop	kPa	52	77	27	34
	Inlet/Outlet Water Pipe Coupling Type	-	Flange Connection		Flange Connection	
Air-side Heat Exchanger	Inlet/Outlet Water Pipe Diameter	mm	DN50		DN80	
	Type	-	Aluminum Fin-Copper Tube			
	Heat Exchanger Quantity	-	2			
	Heat Exchanger Fin Colour	-	Black			
	Fan Type and Qty	-	Axial-Flow x 2			
Compressor	Motor Full Load Amp (FLA)	A	2		4	
	Fan Motor Drive Type	-	Direct Drive			
	Fan Motor Speed	rpm	0~750			
	Fan Motor Flow	m3/h	15500*2		22500*2	
	Compressor Manufacturer	-	ZHUHAI LANDA COMPRESSOR CO.,LTD.			
Compressor	Compressor Model	-	QXFS-H801zN345A			
	Compressor Type	-	Inverter Rotary			
	Compressor Quantity	-	2		4	
Sound Pressure Level	dB(A)	68		69		
Defrosting Method	-	Automatic				
Refrigerant	-	R32				
Refrigerant Charge Amount	kg	12		12*2		
Throttling Method	-	EXV				
Weights and Measures	Dimensions (LxWxH)	mm	2223 x 1031 x 2256		2330 x 1283 x 2355	
	Net weight	kg	672		1090	
	Operating Weight	kg	739.2		1199	

Water Side

	Nominal Operating Condition		Operating Range	
	Inlet Water Temperature °C	Outlet Water Temperature °C	Outlet Water Temperature °C	Differential °C, Inlet & Outlet
Cooling	12	7	-15~20	1~6
Heating	40	45	35~55	1~6

Air Side

	Nominal Operating Condition	Operating Range
	Outdoor Temperature (DB °C)	Outdoor Temperature (DB °C)
Cooling	35	-15~55
Heating	7	-15~40

Safety Protection High-low pressure protection, discharge temp. Protection, motor overload protection, anti-freeze, water flow protection, phase-sequence protection, compressor overload protection.

Nominal Test Conditions:

Cooling: Ambient Temp 35°C DB, Water Temp 12°C EWT/7°C LWT

Heating: Ambient Temp 7°C DB/6°C WB, Water Temp 40°C EWT/45°C LWT

Technical specifications are tested under laboratory conditions and may differ because of installation or application



Gree NZ supports BirdCare Aotearoa

For Installation and Sales:

For Parts and Warranty:

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