DC INVERTER AIR TO WATER VERSATI VI HEAT PUMP

SUBMITTAL DATA: TRS-CQ16Pd/NhG3-D

Job Name	Location		Date	
Purchaser	Engineer			
Submitted To	For	☐ Reference	☐Approval	☐ Construction
Unit Designation	Schedule No.			

Monobloc Air to Water Heat Pump TRS-CQ16Pd/NhG3-D





Wired Controller

FEATURES

- ❑ Side discharge condenser
- ❑ Quiet design
- ❑ Outlet water temperature up to 65°C (150°F)
- ❑ Heating until outdoor ambient -25°C (-13°F)
- ❑ 5.8 kW electric auxiliary heater included
- ❑ Built-in circulation water pump
- ❑ Wired controller included
- ❑ Emergency mode
- ❑ Dual-stage Inverter compressor with EVI

Power Supply		V/Hz/Ph	208-230 / 60 / 1
SYSTEM PERFORMANCE			
Capacity	Cooling	BTU/hr	45,726 (17,915 – 47,773)
	Heating	BTU/hr	54,598 (23,204 – 64,835)
EER		-	11.8
COP		-	4.4
CONDENSING UNIT SPECIFICATIONS			
Ambient Temperature	Cooling	C° (F°)	-15 ~ 48 (5 ~ 118)
	Heating	C° (F°)	-25 ~ 35 (-13 ~ 95)
Water Leaving Temperature	Cooling	C° (F°)	5 ~ 25 (41 ~ 77)
	Heating	C° (F°)	20 ~ 65 (68 ~ 149)
Sound Pressure Level (Cooliing/Heating)		dB(A)	56/59
Rated Input Current Compressor		A	28
Rated Input Current : Pump		A	0.9
Maximum Overcurrent Protection (MOP)		A	60
Minimum Circuit Ampacity (MCA)		A	37
Maximum Water System Pressure		MPa (PSIG)	0.3(43)
Water Connection (BSP)		po	1inch (NSP adaptor included)
Rated Water Volume		LPM (GPM)	34.4 (9.1)
Dimensions	Width	mm (in)	1,206 (47-1/2)
	Height	mm (in)	878 (34-9/16)
	Depth	mm (in)	444 (17-1/2)
Weight	Net	kg (lb)	149 (328)
	Gross	kg (lb)	162 (357)
ELECTRIC HEATING			
Rated Input Current		A	25
Rated Input Power		W	5,800
Maximum Overcurrent Protection (MOP)		A	35
Minimum Circuit Ampacity (MCA)		A	32
REFRIGERATION SYSTEM			
Refrigerant Type / Charge		kg (oz)	R32 / 2.2 (77.6)

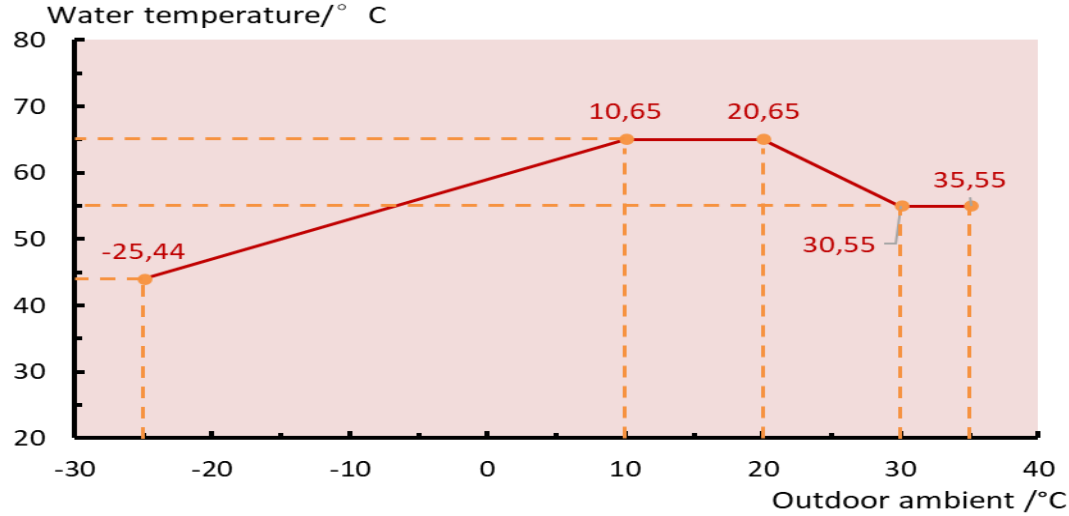
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Heating Capacity Correction

Outdoor Ambient Temp.										
Leaving Water	Capacity level	-15°C (5°F)			-10°C (14°F)			-7.2°C (19°F)		
		Capacity	Power	COP	Capacity	Power	COP	Capacity	Power	COP
35°C (95°F)	max	33,536	18,226	1.84	36,585	16,937	2.16	40,243	16,768	2.40
	norm	28,150	13,450	2.09	30,709	12,499	2.46	33,780	12,374	2.73
	min	12,198	5,200	2.35	13,307	4,832	2.75	14,638	4,784	3.06
45°C (113°F)	max	33,536	22,783	1.47	36,585	21,172	1.73	40,243	20,960	1.92
	norm	28,150	16,812	1.67	30,709	15,623	1.97	33,780	15,467	2.18
	min	12,198	6,500	1.88	13,307	6,040	2.20	14,638	5,980	2.45
55°C (131°F)	max	32,926	28,404	1.16	35,975	26,437	1.36	39,634	26,213	1.51
	norm	27,638	20,961	1.32	30,197	19,509	1.55	33,268	19,343	1.72
	min	11,977	8,103	1.48	13,086	7,542	1.74	14,416	7,478	1.93

Leaving Water Temp.	Capacity level	-2.2°C (28°F)			2.2°C (36°F)			7.2°C (45°F)			10°C (50°F)		
		Capacity (Btu)	Power (W)	COP	Capacity (Btu)	Power (W)	COP	Capacity (Btu)	Power (W)	COP	Capacity (Btu)	Power (W)	COP
35°C (95°F)	max	45,121	16,468	2.74	48,780	16,046	3.04	61,009	15,252	4.00	62,804	15,318	4.10
	norm	37,875	12,152	3.12	40,946	11,841	3.46	51,182	11,249	4.55	52,718	11,304	4.66
	min	16,412	4,698	3.49	17,743	4,578	3.88	22,179	4,349	5.10	22,844	4,370	5.23
45°C (113°F)	max	45,121	20,585	2.19	48,780	20,058	2.43	61,009	19,065	3.20	62,804	19,148	3.28
	norm	37,875	15,190	2.49	40,946	14,801	2.77	55,277	15,186	3.64	52,718	14,130	3.73
	min	16,412	5,872	2.79	17,743	5,722	3.10	22,179	5,436	4.08	22,844	5,463	4.18
55°C (131°F)	max	44,512	25,786	1.73	48,170	25,152	1.92	60,365	23,954	2.52	62,194	24,078	2.58
	norm	37,363	19,028	1.96	40,434	18,560	2.18	52,547	18,120	2.90	52,206	17,768	2.94
	min	16,191	7,356	2.20	17,521	7,175	2.44	21,957	6,834	3.21	22,622	6,869	3.29

Outdoor Ambient Temp. and Upper Limit of Water Leaving Temp.



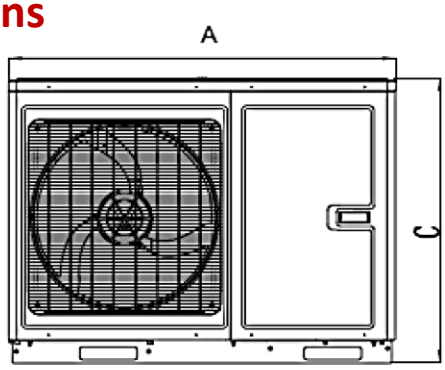
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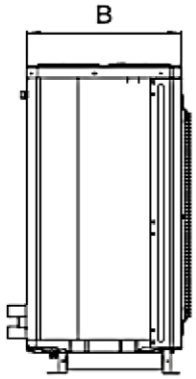
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Cooling Capacity Correction

Leaving Water Temp.	Capacity level	Outdoor Ambient Temp. 30°C (86°F) Capacity (Btu)	Power (W)	EER	35°C (95°F) Capacity (Btu)	Power (W)	EER	40°C (104°F) Capacity (Btu)	Power (W)	EER	45°C (113°F) Capacity (Btu)	Power (W)	EER	47.8°C (118°F) Capacity (Btu)	Power (W)	EER
7.2°C (45°F)	max	48,043	4,858	9.89	46,644	5,424	8.60	35,159	4,180	8.41	22,930	3,088	7.43	21,019	3,484	6.03
	norm	47,376	4,734	10.01	46,000	5,286	8.70	30,764	3,322	9.26	18,917	2,341	8.08	17,340	2,641	6.57
	min	19,330	1,314	14.72	18,767	1,467	12.80	17,265	1,626	10.62	15,764	1,925	8.19	14,450	2,172	6.65
15°C (59°F)	max	60,342	4,780	12.62	58,585	5,337	10.98	44,159	4,113	10.74	28,800	3,038	9.48	26,400	3,428	7.70
	norm	59,504	4,658	12.77	57,771	5,201	11.11	38,639	3,268	11.82	23,760	2,303	10.31	21,780	2,599	8.38
	min	24,278	1,292	18.78	23,571	1,443	16.33	21,685	1,599	13.56	19,800	1,894	10.45	18,150	2,137	8.49
18.3°C (65°F)	max	64,666	4,738	13.65	62,783	5,291	11.87	47,324	4,077	11.61	30,863	3,012	10.25	28,291	3,398	8.33
	norm	63,767	4,618	13.81	52,888	3,596	14.71	41,408	3,240	12.78	25,462	2,283	11.15	23,340	2,576	9.06
	min	26,018	1,281	20.31	25,260	1,430	17.66	23,239	1,586	14.66	21,218	1,877	11.30	19,450	2,118	9.18

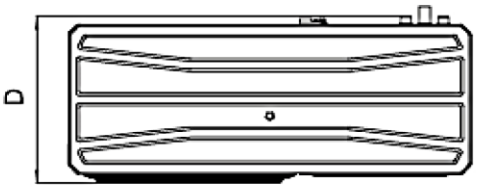
Dimensions

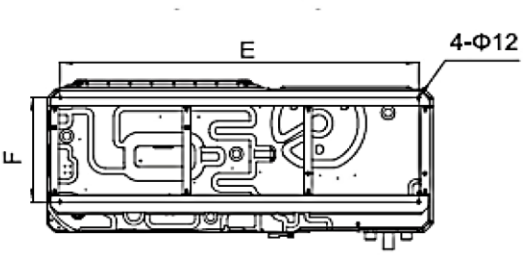




Unit: inch

Diagram of Fixing Holes





A	B	C	D	E	F
47-1/2	17-1/2	34-9/16	19-1/4	44-1/8	12-5/8

R410A INVERTER ETL Intertek AHRI CERTIFIED SA