

Project : uamv
Created By : Ch'ng Swee Guan

Customer Input

Selected Model / Type : UAMV20AFM / Inverter Speed (Hybrid) Scroll Chiller Version A
Ambient Temperature : 35.0 °C Frequency : 50 Hz
Chilled Water : EWT 12.00 °C Voltage : 380-415 V
LWT 7.00 °C Country of Origin : Malaysia

Generated Outputs

Full Load Performance		Nominal Data (MS Standard)		Input Conditions	
Cooling Capacity		20.00		20.00	TR
		70.34		70.34	kW
Current	Compressor	35		35	A
	Fan	5		5	A
	Total	40		40	A
Power Input	Compressor	21.81		21.54	kW
	Fan	1.800		1.800	kW
	Total	23.61		23.34	kW
COP		2.979		3.013	kW/kW
Flow Rate		10.91		12.11	m ³ /h
Pressure Drop		37.9		45.7	kPa

- Nominal data is based on the MS2449 standard condition of EWT/LWT of 12.22/6.67°C, and ambient temperature of 35.0°C.
- Input Condition data is based on customer's input condition of EWT/LWT, and ambient temperature.
- Evaporator rating fouling factor = 0.018 m².K/kW, and rating altitude at 0 m.

Part Load Performance

MPLV		3.579										kW/kW
Point		1	2	3	4	5	6	7	8	9	10	
Corresponding Capacity		100.0	90.0	80.0	70.0	60.0	50.0	40.0	33.2	33.2	33.2	%
Total Cooling Capacity		20.00	18.00	16.00	14.00	12.00	10.00	8.000	6.649	6.649	6.649	TR
Total Cooling Capacity		70.34	63.31	56.27	49.24	42.20	35.17	28.14	23.38	23.38	23.38	kW
Total Power Input		23.34	20.97	18.69	16.49	14.36	12.32	10.36	9.070	9.070	9.070	kW
Total Current		40	36	33	30	27	24	20	18	18	18	A
COP		3.013	3.018	3.011	2.986	2.938	2.855	2.717	2.578	2.578	2.578	kW/kW
Ambient Temperature		35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	°C
EEWT		12.00	11.50	11.00	10.50	10.00	9.50	9.00	8.66	8.66	8.66	°C
ELWT		7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	°C
Flow Rate		12.11	12.11	12.11	12.11	12.11	12.11	12.11	12.11	12.11	12.11	m ³ /h
Pressure Drop		45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	kPa

Others

MCA		61	A
No. of Refrigerant Circuit		1	-
Refrigerant Type		R410A	-
Refrigerant Charge	System 1/2	21.5 / -	kg/System
Chiller Dimension	W / D / H	994 / 2460 / 1810	mm
Weight	Shipping	590	kg
	Operating	595	kg

Evaporator

Type		MPHE	-
Inlet/Outlet Diameter		2.5" Male BSPT	-
Flow Rate	Min / Max	3.070 / 12.73	m ³ /h
Pressure Drop	Min / Max	4.29 / 50.0	kPa

Compressor

Quantity	System 1/2	1 / -	-
Type		Hermetic-sealed (Scroll)	-
Oil Charge	System 1/2	7.7 / -	L/System

Condenser

Coil			-
Tube	Type	Copper Tube	-
Fin	Type	Aluminium Fin	-
Surface Area/ Coil		2.05	m ² /Coil
Fan			-
Type/ Drive		Axial / Direct	-
Quantity per System		2	-