



CHILLER SELECTION REPORT

Dalkin Refrigeration Malaysia Sdn. Bhd.

Project : Unilab
Created By : Lim Mei Yee

Customer Input

Selected Model / Type : UAM40CUM / Fixed Speed Scroll Chiller Version B
Ambient Temperature : 35.0 °C Frequency : 60 Hz
Chilled Water : EWT 12.00 °C Voltage : 380 V
LWT 7.00 °C Country of Origin : Malaysia

Generated Outputs

Full Load Performance		Nominal Data (MS Standard)		Input Conditions	
Cooling Capacity	:		39.64	40.11	TR
			139.4	141.1	kW
Current	:	Compressor	84	84	A
		Fan	11	11	A
		Total	94	94	A
Power Input	:	Compressor	44.91	44.95	kW
		Fan	4.500	4.500	kW
		Total	49.41	49.45	kW
COP	:		2.822	2.852	kW/kW
Flow Rate	:		21.63	24.29	m ³ /h
Pressure Drop	:		40.1	51.5	kPa

Note :
1. 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.
2. Input Condition data is based on customer's input condition of EWT/LWT, and ambient temperature.
3. Evaporator rating fouling factor = 0.018 m².K/kW, and rating altitude at 0 m.

Part Load Performance

MPLV	:		-								kW/kW	
Point	:		1	2	2	4	-	-	-	-	-	
Corresponding Capacity	:		100.0	70.1	70.1	37.7	-	-	-	-	-	%
Total Cooling Capacity	:		39.64	27.77	27.77	14.94	-	-	-	-	-	TR
Total Cooling Capacity	:		139.4	97.66	97.66	52.55	-	-	-	-	-	kW
Total Power Input	:		49.41	32.59	31.09	14.13	-	-	-	-	-	kW
Total Current	:		94	64	61	29	-	-	-	-	-	A
COP	:		2.822	2.997	3.142	3.718	-	-	-	-	-	kW/kW
Ambient Temperature	:		35.0	31.5	31.5	25.6	-	-	-	-	-	°C
EEWT	:		12.22	10.56	10.56	8.76	-	-	-	-	-	°C
ELWT	:		6.67	6.67	6.67	6.67	-	-	-	-	-	°C
Flow Rate	:		21.63	21.63	21.63	21.63	-	-	-	-	-	m³/h
Pressure Drop	:		40.1	40.1	40.1	40.1	-	-	-	-	-	kPa

Others

MCA	:		117	A
No. of Refrigerant Circuit	:		1	-
Refrigerant Type	:		R410A	-
Refrigerant Charge	:	System 1/2	25.0 / -	kg/System
Chiller Dimension	:	W / D / H	1146 / 3282 / 2156	mm
Weight	:	Shipping	1078	kg
	:	Operating	1087	kg

Evaporator

Type	:		BPHE	-
Inlet/Outlet Diameter	:		2.5" Male BSPT	-
Flow Rate	:	Min / Max	10.00 / 32.50	m ³ /h
Pressure Drop	:	Min / Max	5.80 / 94.7	kPa

Compressor

Quantity	:	System 1/2	3 / -	-
Type	:		Hermetic-sealed (Scroll)	-
Oil Charge	:	System 1/2	20.1 / -	L/System

Condenser

Coil	:			-
Tube	:	Type	Copper Tube	-
Fin	:	Type	Aluminium Fin	-
Surface Area/ Coil	:		5.76	m ² /Coil
Fan	:			-
Type/ Drive	:		Axial / Direct	-
Quantity per System	:		3	-

Note : For any enquiry, please contact your authorized sales agent.

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