



CHILLER SELECTION REPORT

Daikin Refrigeration Malaysia Sdn. Bhd.

Project : UAM80
Created By : Siti Nor Aqilah binti Ahmad

Customer Input

Selected Model / Type : UAM80CFM / Fixed Speed Scroll Chiller Version C
Ambient Temperature : 35.0 °C Frequency : 50 Hz
Chilled Water : EWT 13.33 °C Voltage : 380-415 V
LWT 5.56 °C Country of Origin : Malaysia

Generated Outputs

Full Load Performance		Nominal Data (AHRI Standard)		Input Conditions	
Cooling Capacity		80.99		76.86	TR
		284.8		270.3	kW
Current	Compressor	161		161	A
	Fan	18		18	A
	Total	179		179	A
Power Input	Compressor	92.19		92.06	kW
	Fan	12.00		12.00	kW
	Total	104.2		104.1	kW
COP		2.734		2.598	kW/kW
Flow Rate		49.05		29.95	m ³ /h
Pressure Drop		38.1		17.8	kPa
Note	1. Nominal data is based on the AHRI (551/591) standard condition of EWT/LWT of 12.00/7.00°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 m ² .K/kW, and rating altitude at 0 m.				

Part Load Performance

IPLV		-										kW/kW
Point		1	2	3	4	5	6	7	8	9	10	
Corresponding Capacity		100.0	77.6	72.4	55.2	50.0	44.8	27.6	22.4	-	-	%
Total Cooling Capacity		76.86	59.65	55.64	42.44	38.43	34.42	21.22	17.21	-	-	TR
Total Cooling Capacity		270.3	209.8	195.7	149.3	135.2	121.0	74.64	60.52	-	-	kW
Total Power Input		104.1	81.66	76.44	59.25	52.03	48.82	29.62	24.41	-	-	kW
Total Current		179	141	131	102	90	83	51	42	-	-	A
COP		2.598	2.569	2.560	2.520	2.598	2.479	2.520	2.479	-	-	kW/kW
Ambient Temperature		35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	-	-	°C
EEWT		13.33	11.59	11.18	9.85	9.45	9.04	7.71	7.30	-	-	°C
ELWT		5.56	5.56	5.56	5.56	5.56	5.56	5.56	5.56	-	-	°C
Flow Rate		29.95	29.95	29.95	29.95	29.95	29.95	29.95	29.95	-	-	m ³ /h
Pressure Drop		17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8	-	-	kPa

Others

MCA		223	A
No. of Refrigerant Circuit		2	-
Refrigerant Type		R410A	-
Refrigerant Charge	System 1/2	25.0 / 25.0	kg/System
Chiller Dimension	W / D / H	2237 / 3263 / 2156	mm
Weight	Shipping	2917	kg
	Operating	3039	kg

Evaporator

Type		S&T	-
Inlet/Outlet Diameter		5" Victaulic Joint	-
Flow Rate	Min / Max	15.00 / 56.70	m ³ /h
Pressure Drop	Min / Max	5.00 / 47.0	kPa

Compressor

Quantity	System 1/2	2 / 2	-
Type		Hermetic-sealed (Scroll)	-
Oil Charge	System 1/2	13.4 / 13.4	L/System

Condenser

Coil			
Tube	Type	Copper Tube	-
Fin	Type	Aluminium Fin	-
Surface Area/ Coil		11.52	m ² /Coil
Fan			
Type/ Drive		Axial / Direct	-
Quantity per System		3	-