

CHILLER SELECTION REPORT

Daikin Refrigeration Malaysia Sdn. Bhd.

Project : CSS Dec 09
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Customer Input

Selected Model / Type : UAMV59A3F / Inverter Speed (Full) Scroll Chiller Version A
Ambient Temperature : 33.0 °C Frequency : 50 Hz
Chilled Water : EWT 12.00 °C Voltage : 400 V
LWT 6.00 °C Country of Origin : Malaysia

Generated Outputs

Full Load Performance		Nominal Data (AHRI Standard)		Input Conditions	
Cooling Capacity	:		58.96	30.00	TR
			207.4	105.5	kW
Current	:	Compressor	103	53	A
		Fan	9	8	A
		Total	112	60	A
Power Input	:	Compressor	60.66	29.03	kW
		Fan	5.400	4.500	kW
		Total	66.06	33.53	kW
COP	:		3.139	3.147	kW/kW
Flow Rate	:		35.71	15.75	m ³ /h
Pressure Drop	:		23.5	5.41	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 m².K/kW, and rating altitude at 0 m.

Part Load Performance

IPLV	:	4.443										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	30.0	20.0	16.1	%
Total Cooling Capacity	:	30.00	27.00	24.00	21.00	18.00	15.00	12.00	9.000	6.000	4.834	TR
Total Cooling Capacity	:	105.5	94.96	84.41	73.86	63.31	52.76	42.20	31.65	21.10	17.00	kW
Total Power Input	:	33.53	29.18	26.00	22.70	19.66	16.89	13.38	10.27	7.432	6.392	kW
Total Current	:	60	51	46	42	37	32	24	19	15	12	A
COP	:	3.147	3.254	3.247	3.254	3.220	3.124	3.155	3.081	2.840	2.659	kW/kW
Ambient Temperature	:	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	°C
EEWT	:	11.77	11.19	10.61	10.04	9.46	8.88	8.31	7.73	7.15	6.93	°C
ELWT	:	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	°C
Flow Rate	:	15.75	15.75	15.75	15.75	15.75	15.75	15.75	15.75	15.75	15.75	m ³ /h
Pressure Drop	:	5.41	5.41	5.41	5.41	5.41	5.41	5.41	5.41	5.41	5.41	kPa

Others

MCA	:	142										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	2052									kg
	:	Operating	2174									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									-									
Fin	:	Type	Aluminium									-									
Surface Area/ Coil	:	11.52										m ² /Coil									
Fan	:											-									
Type/ Drive	:	Axial / Direct										-									
Quantity per System	:	3										-									