

CHILLER SELECTION REPORT

Daikin Refrigeration Malaysia Sdn. Bhd.

Project : CSS 15 Dec
Created By : lee ming yang

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	35.00	TR
			207.4	123.1	kW
Current	:	Compressor	103	61	A
		Fan	9	8	A
		Total	112	68	A
Power Input	:	Compressor	60.66	33.85	kW
		Fan	5.400	4.500	kW
		Total	66.06	38.35	kW
COP	:		3.139	3.210	kW/kW
Flow Rate	:		35.71	17.66	m ³ /h
Pressure Drop	:		23.5	6.95	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	13.8	%
Total Cooling Capacity	:	35.00	31.50	28.00	24.50	21.00	17.50	14.00	10.50	7.000	4.834	TR
Total Cooling Capacity	:	123.1	110.8	98.48	86.17	73.86	61.55	49.24	36.93	24.62	17.00	kW
Total Power Input	:	38.35	34.90	30.29	26.56	22.70	19.18	15.59	11.79	8.351	6.392	kW
Total Current	:	68	63	52	47	42	36	27	22	16	12	A
COP	:	3.210	3.174	3.251	3.245	3.254	3.208	3.159	3.132	2.948	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	:	12.00	11.40	10.80	10.20	9.60	9.00	8.40	7.80	7.20	6.83	°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	:	17.66	17.66	17.66	17.66	17.66	17.66	17.66	17.66	17.66	17.66	m ³ /h
Pressure Drop	:	6.95	6.95	6.95	6.95	6.95	6.95	6.95	6.95	6.95	6.95	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	-