



# CHILLER SELECTION REPORT

Dalkin Refrigeration Malaysia Sdn. Bhd.

Project : trial  
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## 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 (AHRI Standard) |       | Input Conditions |                   |
|-----------------------|---|------------------------------|-------|------------------|-------------------|
| Cooling Capacity      | : |                              | 20.20 | 20.00            | TR                |
|                       |   |                              | 71.04 | 70.34            | kW                |
| Current               | : | Compressor                   | 35    | 35               | A                 |
|                       |   | Fan                          | 5     | 5                | A                 |
|                       |   | Total                        | 40    | 40               | A                 |
| Power Input           | : | Compressor                   | 21.78 | 21.54            | kW                |
|                       |   | Fan                          | 1.800 | 1.800            | kW                |
|                       |   | Total                        | 23.58 | 23.34            | kW                |
| COP                   | : |                              | 3.012 | 3.013            | kW/kW             |
| Flow Rate             | : |                              | 12.23 | 12.11            | m <sup>3</sup> /h |
| Pressure Drop         | : |                              | 46.5  | 45.7             | 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<sup>2</sup>.K/kW, and rating altitude at 0 m.

## Part Load Performance

|                        |   |       |       |       |       |   |   |   |   |                   |
|------------------------|---|-------|-------|-------|-------|---|---|---|---|-------------------|
| IPLV                   | : | 5.017 |       |       |       |   |   |   |   | kW/kW             |
| Point                  | : | 1     | 2     | 3     | 4     | - | - | - | - | -                 |
| Corresponding Capacity | : | 100.0 | 75.0  | 50.0  | 43.9  | - | - | - | - | -                 |
| Total Cooling Capacity | : | 20.20 | 15.15 | 10.10 | 8.870 | - | - | - | - | TR                |
| Total Cooling Capacity | : | 71.04 | 53.28 | 35.51 | 31.20 | - | - | - | - | kW                |
| Total Power Input      | : | 23.58 | 13.34 | 6.284 | 4.628 | - | - | - | - | kW                |
| Total Current          | : | 40    | 25    | 13    | 10    | - | - | - | - | A                 |
| COP                    | : | 3.012 | 3.995 | 5.651 | 6.741 | - | - | - | - | kW/kW             |
| Ambient Temperature    | : | 35.0  | 27.0  | 19.0  | 13.0  | - | - | - | - | °C                |
| EEWT                   | : | 12.00 | 10.75 | 9.50  | 9.20  | - | - | - | - | °C                |
| ELWT                   | : | 7.00  | 7.00  | 7.00  | 7.00  | - | - | - | - | °C                |
| Flow Rate              | : | 12.23 | 12.23 | 12.23 | 12.23 | - | - | - | - | m <sup>3</sup> /h |
| Pressure Drop          | : | 46.5  | 46.5  | 46.5  | 46.5  | - | - | - | - | 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 <sup>3</sup> /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 <sup>2</sup> /Coil |
| Fan                 | :      |                |                      |
| Type/ Drive         | :      | Axial / Direct | -                    |
| Quantity per System | :      | 2              | -                    |

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

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