



# CHILLER SELECTION REPORT

Daikin Refrigeration Malaysia Sdn. Bhd.

Project : 17 Feb (Count + Image)

Created By : lee ming yang

## Customer Input

|                       |             |       |                                      |                   |            |
|-----------------------|-------------|-------|--------------------------------------|-------------------|------------|
| Selected Model / Type | : UAM100C3F | /     | Fixed Speed Scroll Chiller Version C |                   |            |
| Ambient Temperature   | : 28.0      | °C    | Frequency                            | : 50              | Hz         |
| Chilled Water         | : EWT       | 11.00 | °C                                   | Voltage           | : 380-415  |
|                       | : LWT       | 6.00  | °C                                   | Country of Origin | : Malaysia |

## Generated Outputs

| Full Load Performance |   | Nominal Data (AHRI Standard) |       | Input Conditions |                   |
|-----------------------|---|------------------------------|-------|------------------|-------------------|
| Cooling Capacity      | : |                              | 100.0 | 100.0            | TR                |
|                       |   |                              | 351.7 | 351.7            | kW                |
| Current               | : | Compressor                   | 201   | 182              | A                 |
|                       |   | Fan                          | 24    | 24               | A                 |
|                       |   | Total                        | 225   | 206              | A                 |
| Power Input           | : | Compressor                   | 116.4 | 100.4            | kW                |
|                       |   | Fan                          | 16.00 | 16.00            | kW                |
|                       |   | Total                        | 132.4 | 116.4            | kW                |
| COP                   | : |                              | 2.656 | 3.021            | kW/kW             |
| Flow Rate             | : |                              | 60.56 | 60.56            | m <sup>3</sup> /h |
| Pressure Drop         | : |                              | 63.0  | 63.0             | kPa               |

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                   |   | 4.056 |       |       |       |       |       |       |       |   |    | kW/kW             |
| Point                  | : | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9 | 10 |                   |
| Corresponding Capacity | : | 100.0 | 86.1  | 78.8  | 62.3  | 55.0  | 47.6  | 31.1  | 23.8  | - | -  | %                 |
| Total Cooling Capacity | : | 100.0 | 86.10 | 78.78 | 62.28 | 54.96 | 47.64 | 31.14 | 23.82 | - | -  | TR                |
| Total Cooling Capacity | : | 351.7 | 302.8 | 277.1 | 219.0 | 193.3 | 167.5 | 109.5 | 83.77 | - | -  | kW                |
| Total Power Input      | : | 116.4 | 90.13 | 84.51 | 63.84 | 58.22 | 52.60 | 31.92 | 26.30 | - | -  | kW                |
| Total Current          | : | 206   | 159   | 150   | 113   | 103   | 94    | 57    | 47    | - | -  | A                 |
| COP                    | : | 3.021 | 3.360 | 3.278 | 3.431 | 3.320 | 3.185 | 3.431 | 3.185 | - | -  | kW/kW             |
| Ambient Temperature    | : | 28.0  | 28.0  | 28.0  | 28.0  | 28.0  | 28.0  | 28.0  | 28.0  | - | -  | °C                |
| EEWT                   | : | 11.00 | 10.30 | 9.94  | 9.11  | 8.75  | 8.38  | 7.56  | 7.19  | - | -  | °C                |
| ELWT                   | : | 6.00  | 6.00  | 6.00  | 6.00  | 6.00  | 6.00  | 6.00  | 6.00  | - | -  | °C                |
| Flow Rate              | : | 60.56 | 60.56 | 60.56 | 60.56 | 60.56 | 60.56 | 60.56 | 60.56 | - | -  | m <sup>3</sup> /h |
| Pressure Drop          | : | 63.0  | 63.0  | 63.0  | 63.0  | 63.0  | 63.0  | 63.0  | 63.0  | - | -  | kPa               |

## Others

|                            |              |                    |           |
|----------------------------|--------------|--------------------|-----------|
| MCA                        | :            | 282                | A         |
| No. of Refrigerant Circuit | :            | 2                  | -         |
| Refrigerant Type           | :            | R410A              | -         |
| Refrigerant Charge         | : System 1/2 | 35.0 / 35.0        | kg/System |
| Chiller Dimension          | : W / D / H  | 2237 / 4163 / 2156 | mm        |
| Weight                     | : Shipping   | 3048               | kg        |
|                            | : Operating  | 3239               | kg        |

## Evaporator

|                       |             |                    |                   |
|-----------------------|-------------|--------------------|-------------------|
| Type                  | :           | S&T                | -                 |
| Inlet/Outlet Diameter | :           | 5" Victaulic Joint | -                 |
| Flow Rate             | : Min / Max | 16.40 / 70.40      | m <sup>3</sup> /h |
| Pressure Drop         | : Min / Max | 7.00 / 79.0        | 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  | :      | 15.36          | m <sup>2</sup> /Coil |
| Fan                 | :      |                |                      |
| Type/ Drive         | :      | Axial / Direct | -                    |
| Quantity per System | :      | 4              | -                    |

Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI). Certified Units may be found in the AHRI Directory at [www.ahridirectory.org](http://www.ahridirectory.org)



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

CSQS.C01.S01

17-Feb, 2023 10:58

Page : 1/2