

# CHILLER SELECTION REPORT

Daikin Refrigeration Malaysia Sdn. Bhd.

Project : CSS Dec-28  
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## Customer Input

Selected Model / Type : UAM60C3F / Fixed Speed Scroll Chiller Version C  
Ambient Temperature : 41.0 °C Frequency : 50 Hz  
Chilled Water : EWT 0.00 °C Voltage : 380-415 V  
LWT 6.00 °C Country of Origin : Malaysia

## Generated Outputs

| Full Load Performance |   | Nominal Data (AHRI Standard) |       | Input Conditions |                   |
|-----------------------|---|------------------------------|-------|------------------|-------------------|
| Cooling Capacity      | : |                              | 59.27 | 51.70            | TR                |
|                       |   |                              | 208.4 | 181.8            | kW                |
| Current               | : | Compressor                   | 115   | 128              | A                 |
|                       |   | Fan                          | 18    | 18               | A                 |
|                       |   | Total                        | 133   | 146              | A                 |
| Power Input           | : | Compressor                   | 67.18 | 76.43            | kW                |
|                       |   | Fan                          | 12.00 | 12.00            | kW                |
|                       |   | Total                        | 79.18 | 88.43            | kW                |
| COP                   | : |                              | 2.632 | 2.056            | kW/kW             |
| Flow Rate             | : |                              | 35.90 | 60.00            | m <sup>3</sup> /h |
| Pressure Drop         | : |                              | 37.9  | 87.5             | 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                   | : | 3.750 |       |       |       |       |       |   |   | kW/kW |
| Point                  | : | 1     | 2     | 2     | 3     | 3     | 4     | - | - | -     |
| Corresponding Capacity | : | 100.0 | 83.9  | 55.9  | 61.3  | 30.7  | 32.5  | - | - | -     |
| Total Cooling Capacity | : | 59.27 | 49.72 | 33.14 | 36.34 | 18.17 | 19.27 | - | - | -     |
| Total Cooling Capacity | : | 208.4 | 174.8 | 116.6 | 127.8 | 63.91 | 67.76 | - | - | -     |
| Total Power Input      | : | 79.18 | 52.47 | 36.32 | 31.96 | 15.98 | 14.61 | - | - | -     |
| Total Current          | : | 133   | 91    | 63    | 58    | 29    | 27    | - | - | -     |
| COP                    | : | 2.632 | 3.332 | 3.210 | 4.000 | 4.000 | 4.639 | - | - | -     |
| Ambient Temperature    | : | 35.0  | 27.0  | 27.0  | 19.0  | 19.0  | 13.0  | - | - | -     |
| EEWT                   | : | 12.00 | 11.19 | 9.80  | 10.07 | 8.53  | 8.63  | - | - | -     |
| ELWT                   | : | 7.00  | 7.00  | 7.00  | 7.00  | 7.00  | 7.00  | - | - | -     |
| Flow Rate              | : | 35.90 | 35.90 | 35.90 | 35.90 | 35.90 | 35.90 | - | - | -     |
| Pressure Drop          | : | 37.9  | 37.9  | 37.9  | 37.9  | 37.9  | 37.9  | - | - | -     |

## Others

|                            |   |            |                    |  |  |  |  |  |  |           |
|----------------------------|---|------------|--------------------|--|--|--|--|--|--|-----------|
| MCA                        | : | 164        |                    |  |  |  |  |  |  | A         |
| No. of Refrigerant Circuit | : | 2          |                    |  |  |  |  |  |  | -         |
| Refrigerant Type           | : | R410A      |                    |  |  |  |  |  |  | -         |
| Refrigerant Charge         | : | System 1/2 | 21.0 / 21.0        |  |  |  |  |  |  | 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 | : | 4" Victaulic Joint |               |  |  |  |  |  |  | -                 |
| Flow Rate             | : | Min / Max          | 13.70 / 61.20 |  |  |  |  |  |  | m <sup>3</sup> /h |
| Pressure Drop         | : | Min / Max          | 7.00 / 90.0   |  |  |  |  |  |  | kPa               |

## Compressor

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

## Condenser

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