



# CHILLER SELECTION REPORT

Daikin Refrigeration Malaysia Sdn. Bhd.

Project : ABC hotel  
Created By : Ethan Hing

## Customer Input

Selected Model / Type : UAM60C3F / Fixed Speed Scroll Chiller Version C  
Ambient Temperature : 25.0 °C Frequency : 50 Hz  
Chilled Water : EWT 11.00 °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      | : |                                                                                                                                                                                                                                                                                                                                          | 59.27 | 60.00            | TR                |
|                       |   |                                                                                                                                                                                                                                                                                                                                          | 208.4 | 211.0            | kW                |
| Current               | : | Compressor                                                                                                                                                                                                                                                                                                                               | 115   | 99               | A                 |
|                       |   | Fan                                                                                                                                                                                                                                                                                                                                      | 18    | 18               | A                 |
|                       |   | Total                                                                                                                                                                                                                                                                                                                                    | 133   | 117              | A                 |
| Power Input           | : | Compressor                                                                                                                                                                                                                                                                                                                               | 67.18 | 54.29            | kW                |
|                       |   | Fan                                                                                                                                                                                                                                                                                                                                      | 12.00 | 12.00            | kW                |
|                       |   | Total                                                                                                                                                                                                                                                                                                                                    | 79.18 | 66.29            | kW                |
| COP                   | : |                                                                                                                                                                                                                                                                                                                                          | 2.632 | 3.183            | kW/kW             |
| Flow Rate             | : |                                                                                                                                                                                                                                                                                                                                          | 35.90 | 45.42            | m <sup>3</sup> /h |
| Pressure Drop         | : |                                                                                                                                                                                                                                                                                                                                          | 37.9  | 55.6             | 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.<br>2. Input Condition data is based on customer's input condition of EWT/LWT, and ambient temperature.<br>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     | 3     | 4     | 5 | 6 | 7 | 8 | 9 | 10 |                   |
| Corresponding Capacity | : | 100.0 | 84.9  | 56.6  | 28.3  | - | - | - | - | - | -  | %                 |
| Total Cooling Capacity | : | 60.00 | 50.96 | 33.97 | 16.99 | - | - | - | - | - | -  | TR                |
| Total Cooling Capacity | : | 211.0 | 179.2 | 119.5 | 59.74 | - | - | - | - | - | -  | kW                |
| Total Power Input      | : | 66.29 | 50.72 | 33.15 | 17.57 | - | - | - | - | - | -  | kW                |
| Total Current          | : | 117   | 89    | 59    | 31    | - | - | - | - | - | -  | A                 |
| COP                    | : | 3.183 | 3.534 | 3.605 | 3.400 | - | - | - | - | - | -  | kW/kW             |
| Ambient Temperature    | : | 25.0  | 25.0  | 25.0  | 25.0  | - | - | - | - | - | -  | °C                |
| EEWT                   | : | 11.00 | 10.40 | 9.26  | 8.13  | - | - | - | - | - | -  | °C                |
| ELWT                   | : | 7.00  | 7.00  | 7.00  | 7.00  | - | - | - | - | - | -  | °C                |
| Flow Rate              | : | 45.42 | 45.42 | 45.42 | 45.42 | - | - | - | - | - | -  | m <sup>3</sup> /h |
| Pressure Drop          | : | 55.6  | 55.6  | 55.6  | 55.6  | - | - | - | - | - | -  | kPa               |

## Others

|                            |   |            |                    |
|----------------------------|---|------------|--------------------|
| MCA                        | : | 164        | A                  |
| No. of Refrigerant Circuit | : | 2          | -                  |
| Refrigerant Type           | : | R410A      | -                  |
| Refrigerant Charge         | : | System 1/2 | 21.0 / 21.0        |
| Chiller Dimension          | : | W / D / H  | 2237 / 3263 / 2156 |
| Weight                     | : | Shipping   | 2052               |
|                            | : | Operating  | 2174               |

## Evaporator

|                       |   |                    |               |
|-----------------------|---|--------------------|---------------|
| Type                  | : | S&T                | -             |
| Inlet/Outlet Diameter | : | 4" Victaulic Joint | -             |
| Flow Rate             | : | Min / Max          | 13.70 / 61.20 |
| Pressure Drop         | : | Min / Max          | 7.00 / 90.0   |

## 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          |
| Fan                 | : |      |                |
| Type/ Drive         | : |      | Axial / Direct |
| Quantity per System | : |      | 3              |

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

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