

Project :  
Created By :

## Customer Input

Selected Model / Type : UAM80C3F / Fixed Speed Scroll Chiller Version C  
Ambient Temperature : 30.0 °C Frequency : 50 Hz  
Chilled Water : Flow Rate 50.00 m³/h Voltage : 380-415 V  
LWT 8.00 °C Country of Origin : Malaysia

## Generated Outputs

| Full Load Performance |   | Nominal Data (AHRI Standard) |       | Input Conditions |       |
|-----------------------|---|------------------------------|-------|------------------|-------|
| Cooling Capacity      | : |                              | 80.00 | 80.00            | TR    |
|                       |   |                              | 281.4 | 281.4            | kW    |
| Current               | : | Compressor                   | 161   | 150              | A     |
|                       |   | Fan                          | 18    | 18               | A     |
|                       |   | Total                        | 179   | 168              | A     |
| Power Input           | : | Compressor                   | 92.20 | 83.34            | kW    |
|                       |   | Fan                          | 12.00 | 12.00            | kW    |
|                       |   | Total                        | 104.2 | 95.34            | kW    |
| COP                   | : |                              | 2.700 | 2.951            | kW/kW |
| Flow Rate             | : |                              | 48.45 | 50.00            | m³/h  |
| Pressure Drop         | : |                              | 37.4  | 39.2             | 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                   | : | 3.926 |       |       |       |       |       |       |       |   |    | kW/kW |
| Point                  | : | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9 | 10 |       |
| Corresponding Capacity | : | 100.0 | 87.6  | 81.7  | 62.3  | 56.4  | 50.5  | 31.2  | 25.3  | - | -  | %     |
| Total Cooling Capacity | : | 80.00 | 70.07 | 65.35 | 49.86 | 45.14 | 40.42 | 24.93 | 20.21 | - | -  | TR    |
| Total Cooling Capacity | : | 281.4 | 246.4 | 229.8 | 175.4 | 158.8 | 142.2 | 87.68 | 71.08 | - | -  | kW    |
| Total Power Input      | : | 95.34 | 74.90 | 70.11 | 54.46 | 47.67 | 44.88 | 27.23 | 22.44 | - | -  | kW    |
| Total Current          | : | 168   | 132   | 123   | 96    | 84    | 78    | 48    | 39    | - | -  | A     |
| COP                    | : | 2.951 | 3.290 | 3.278 | 3.220 | 3.330 | 3.168 | 3.220 | 3.168 | - | -  | kW/kW |
| Ambient Temperature    | : | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | 30.0  | - | -  | °C    |
| EEWT                   | : | 12.85 | 12.24 | 11.96 | 11.02 | 10.73 | 10.45 | 9.51  | 9.22  | - | -  | °C    |
| ELWT                   | : | 8.00  | 8.00  | 8.00  | 8.00  | 8.00  | 8.00  | 8.00  | 8.00  | - | -  | °C    |
| Flow Rate              | : | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 | - | -  | m³/h  |
| Pressure Drop          | : | 39.2  | 39.2  | 39.2  | 39.2  | 39.2  | 39.2  | 39.2  | 39.2  | - | -  | kPa   |

## Others

|                            |   |            |                    |           |
|----------------------------|---|------------|--------------------|-----------|
| MCA                        | : |            | 223                | 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   | 2917               | kg        |
|                            | : | Operating  | 3039               | kg        |

## Evaporator

|                       |           |                    |      |
|-----------------------|-----------|--------------------|------|
| Type                  | :         | S&T                | -    |
| Inlet/Outlet Diameter | :         | 5" Victaulic Joint | -    |
| Flow Rate             | Min / Max | 15.00 / 56.70      | m³/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          | m²/Coil |
| Fan                 | : |      |                |         |
| Type/ Drive         | : |      | Axial / Direct | -       |
| Quantity per System | : |      | 3              | -       |

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)

