

Project : wellround tech  
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## Customer Input

Selected Model / Type : UAM40CFM / Fixed Speed Scroll Chiller Version C  
Ambient Temperature : 35.0 °C Frequency : 50 Hz  
Chilled Water : EWT 12.00 °C Voltage : 380-415 V  
LWT 5.00 °C Country of Origin : Malaysia

## Generated Outputs

| Full Load Performance |                                                                                                                                                                                                                                                                                                                                  | Nominal Data (MS Standard) |  | Input Conditions |                   |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--|------------------|-------------------|
| Cooling Capacity      |                                                                                                                                                                                                                                                                                                                                  | 40.01                      |  | 37.65            | TR                |
|                       |                                                                                                                                                                                                                                                                                                                                  | 140.7                      |  | 132.4            | kW                |
| Current               | Compressor                                                                                                                                                                                                                                                                                                                       | 81                         |  | 81               | A                 |
|                       | Fan                                                                                                                                                                                                                                                                                                                              | 9                          |  | 9                | A                 |
|                       | Total                                                                                                                                                                                                                                                                                                                            | 90                         |  | 90               | A                 |
| Power Input           | Compressor                                                                                                                                                                                                                                                                                                                       | 46.08                      |  | 46.01            | kW                |
|                       | Fan                                                                                                                                                                                                                                                                                                                              | 6.000                      |  | 6.000            | kW                |
|                       | Total                                                                                                                                                                                                                                                                                                                            | 52.08                      |  | 52.01            | kW                |
| COP                   |                                                                                                                                                                                                                                                                                                                                  | 2.702                      |  | 2.546            | kW/kW             |
| Flow Rate             |                                                                                                                                                                                                                                                                                                                                  | 21.83                      |  | 16.29            | m <sup>3</sup> /h |
| Pressure Drop         |                                                                                                                                                                                                                                                                                                                                  | 41.0                       |  | 21.3             | kPa               |
| Note                  | 1. Nominal data is based on the MS2449 standard condition of EWT/LWT of 12.22/6.67°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

|                        |  |       |       |       |   |   |   |   |   |   |    |                   |
|------------------------|--|-------|-------|-------|---|---|---|---|---|---|----|-------------------|
| MPLV                   |  | 3.394 |       |       |   |   |   |   |   |   |    | kW/kW             |
| Point                  |  | 1     | 2     | 3     | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                   |
| Corresponding Capacity |  | 100.0 | 55.2  | 44.8  | - | - | - | - | - | - | -  | %                 |
| Total Cooling Capacity |  | 37.65 | 20.79 | 16.86 | - | - | - | - | - | - | -  | TR                |
| Total Cooling Capacity |  | 132.4 | 73.12 | 59.30 | - | - | - | - | - | - | -  | kW                |
| Total Power Input      |  | 52.01 | 29.61 | 24.40 | - | - | - | - | - | - | -  | kW                |
| Total Current          |  | 90    | 51    | 42    | - | - | - | - | - | - | -  | A                 |
| COP                    |  | 2.546 | 2.469 | 2.430 | - | - | - | - | - | - | -  | kW/kW             |
| Ambient Temperature    |  | 35.0  | 35.0  | 35.0  | - | - | - | - | - | - | -  | °C                |
| EEWT                   |  | 12.00 | 8.87  | 8.13  | - | - | - | - | - | - | -  | °C                |
| ELWT                   |  | 5.00  | 5.00  | 5.00  | - | - | - | - | - | - | -  | °C                |
| Flow Rate              |  | 16.29 | 16.29 | 16.29 | - | - | - | - | - | - | -  | m <sup>3</sup> /h |
| Pressure Drop          |  | 21.3  | 21.3  | 21.3  | - | - | - | - | - | - | -  | kPa               |

## Others

|                            |            |                    |           |
|----------------------------|------------|--------------------|-----------|
| MCA                        |            | 118                | A         |
| No. of Refrigerant Circuit |            | 1                  | -         |
| Refrigerant Type           |            | R410A              | -         |
| Refrigerant Charge         | System 1/2 | 25.0 / -           | kg/System |
| Chiller Dimension          | W / D / H  | 1146 / 3282 / 2156 | mm        |
| Weight                     | Shipping   | 1130               | kg        |
|                            | Operating  | 1139               | kg        |

## Evaporator

|                       |           |                |                   |
|-----------------------|-----------|----------------|-------------------|
| Type                  |           | BPHE           | -                 |
| Inlet/Outlet Diameter |           | 2.5" Male BSPT | -                 |
| Flow Rate             | Min / Max | 10.00 / 32.50  | m <sup>3</sup> /h |
| Pressure Drop         | Min / Max | 5.80 / 94.7    | kPa               |

## Compressor

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

## Condenser

|                     |      |                |                      |
|---------------------|------|----------------|----------------------|
| Coil                |      |                |                      |
| Tube                | Type | Copper Tube    | -                    |
| Fin                 | Type | Aluminium Fin  | -                    |
| Surface Area/ Coil  |      | 5.76           | m <sup>2</sup> /Coil |
| Fan                 |      |                |                      |
| Type/ Drive         |      | Axial / Direct | -                    |
| Quantity per System |      | 3              | -                    |