

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | FM FT406U       |
| Nominal Voltage/Frequency | 230 V 46-150 Hz |
| Engineering Number        | 513805031       |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|                                    |  |                                   |           |
|------------------------------------|--|-----------------------------------|-----------|
| 1 Type                             | Hermetic reciprocating compressor                                  |                                   |           |
| 2 Refrigerant                      | R-290  |                                   |           |
| 3 Nominal voltage and frequency    | 230 / 46-150   | [ V / Hz ]                        |           |
| 4 Application type                 | Low-Medium Back Pressure (Light Commercial - Curves until T.Evap - |                                   |           |
| 4.1 Evaporating temperature range  | -40°C to 0°C   | (-40°F to 32°F)                   |           |
| 5 Motor type                       | BPM  |                                   |           |
| 6 Starting torque                  | HST - High starting torque   |                                   |           |
| 7 Expansion device                 | Capillary tube or Expansion valve                                  |                                   |           |
| 8 Compressor cooling               |  | Operating voltage range           |           |
|                                    |  | 50 Hz                             | 60 Hz     |
| 8.1 LBP (32°C Ambient temperature) | -  | -                                 | -         |
| 8.2 LBP (43°C Ambient temperature) | -  | -                                 | -         |
| 8.3 HBP (32°C Ambient temperature) | -  | -                                 | -         |
| 8.4 HBP (43°C Ambient temperature) | -  | -                                 | -         |
| 9 Maximum condensing temperature   |  |                                   |           |
| 9.1 Operating                      | 18.4   | [kgf/cm <sup>2</sup> ] (262 psig) | / °C - °F |
| 9.2 Peak                           | 20.6   | [kgf/cm <sup>2</sup> ] (293 psig) | / °C - °F |
| 10 Maximum winding temperature     | 130  | [ °C ]                            |           |

### B - MECHANICAL DATA

|                               |                 |                                  |
|-------------------------------|-----------------|----------------------------------|
| 1 Commercial designation      | 1/2             | [hp]                             |
| 2 Displacement                | 6.44            | [cm <sup>3</sup> ] (0.393 cu.in) |
| 2.1 Bore [mm]                 | 22.500          |                                  |
| 2.2 Stroke [mm]               | 16.200          |                                  |
| 3 Lubricant charge            | 430             | [ml] (14.54 fl.oz.)              |
| 3.1 Lubricants approved       |                 |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO22 |                                  |
| 4 Weight (with oil charge)    | 10.28           | [kg] (22.66 lb.)                 |
| 5 Nitrogen charge             | -               | [kgf/cm <sup>2</sup> ]           |

### C - ELECTRICAL DATA

|  |                                  |                                    |
|--|----------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 230 V 46-150 Hz 3~ (Three phase) |                                    |
| 2 Starting device type                       | Inverter                         |                                    |
| 2.1 Starting device                          | CF10B04 W 0.0 X                  |                                    |
| 3 Start capacitor                            | -                                | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | -                                | [µF(VAC minimum)]                  |
| 5 Motor protection                           | CF10B04 W 0.0 X                  |                                    |
| 6 Start winding resistance                   | 10.55                            | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 10.55                            | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50/60 Hz)     | -                                | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50/60 Hz)  | -                                | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50/60 Hz)   | -                                | [A] - Measured according to UL 984 |
| 11 Approval boards certification             |                                  |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|   |          |     |                             |                               |   |                           |  |       |
|---|----------|-----|-----------------------------|-------------------------------|---|---------------------------|--|-------|
| TEST CONDITIONS:<br><b>@100V1400RPM</b> |          |     | <b>ASHRAELBP32<br/>Fan</b>  |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-23.3°C (-9.94°F)<br/>54.4°C (129.92°F)</b> |       |
| Cooling capacity<br>+/- 5%              |          |     | Power consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%                             | EFFICIENCY RATE<br>+/- 7% |  |       |
| [Btu/h]                                 | [kcal/h] | [W] | [W]                         | [A]                           | [kg/h]  | [Btu/Wh]                  | [kcal/Wh]                                      | [W/W] |
| 539                                     | 136      | 158 | 87                          | 1.21                          | 1.60  | 6.20                      | 1.56   | 1.82  |

|   |          |     |                             |                               |   |                           |  |       |
|---|----------|-----|-----------------------------|-------------------------------|---|---------------------------|--|-------|
| TEST CONDITIONS:<br><b>@100V1800RPM</b> |          |     | <b>ASHRAELBP32<br/>Fan</b>  |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-23.3°C (-9.94°F)<br/>54.4°C (129.92°F)</b> |       |
| Cooling capacity<br>+/- 5%              |          |     | Power consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%                             | EFFICIENCY RATE<br>+/- 7% |  |       |
| [Btu/h]                                 | [kcal/h] | [W] | [W]                         | [A]                           | [kg/h]  | [Btu/Wh]                  | [kcal/Wh]                                      | [W/W] |
| 692                                     | 174      | 203 | 109                         | 1.48                          | 2.06  | 6.38                      | 1.61   | 1.87  |

|   |          |     |                             |                               |   |                           |  |       |
|---|----------|-----|-----------------------------|-------------------------------|---|---------------------------|--|-------|
| TEST CONDITIONS:<br><b>@100V3000RPM</b> |          |     | <b>ASHRAELBP32<br/>Fan</b>  |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-23.3°C (-9.94°F)<br/>54.4°C (129.92°F)</b> |       |
| Cooling capacity<br>+/- 5%              |          |     | Power consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%                             | EFFICIENCY RATE<br>+/- 7% |  |       |
| [Btu/h]                                 | [kcal/h] | [W] | [W]                         | [A]                           | [kg/h]  | [Btu/Wh]                  | [kcal/Wh]                                      | [W/W] |
| 1174                                    | 296      | 344 | 184                         | 2.50                          | 3.49  | 6.39                      | 1.61   | 1.87  |

|   |          |     |                             |                               |   |                           |  |       |
|---|----------|-----|-----------------------------|-------------------------------|---|---------------------------|--|-------|
| TEST CONDITIONS:<br><b>@100V3600RPM</b> |          |     | <b>ASHRAELBP32<br/>Fan</b>  |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-23.3°C (-9.94°F)<br/>54.4°C (129.92°F)</b> |       |
| Cooling capacity<br>+/- 5%              |          |     | Power consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%                             | EFFICIENCY RATE<br>+/- 7% |  |       |
| [Btu/h]                                 | [kcal/h] | [W] | [W]                         | [A]                           | [kg/h]  | [Btu/Wh]                  | [kcal/Wh]                                      | [W/W] |
| 1340                                    | 338      | 393 | 221                         | 2.88                          | 3.99  | 6.07                      | 1.53   | 1.78  |

|   |          |     |                             |                               |   |                           |  |       |
|---|----------|-----|-----------------------------|-------------------------------|---|---------------------------|--|-------|
| TEST CONDITIONS:<br><b>@100V4500RPM</b> |          |     | <b>ASHRAELBP32<br/>Fan</b>  |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-23.3°C (-9.94°F)<br/>54.4°C (129.92°F)</b> |       |
| Cooling capacity<br>+/- 5%              |          |     | Power consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%                             | EFFICIENCY RATE<br>+/- 7% |  |       |
| [Btu/h]                                 | [kcal/h] | [W] | [W]                         | [A]                           | [kg/h]  | [Btu/Wh]                  | [kcal/Wh]                                      | [W/W] |
| 1468                                    | 370      | 430 | 241                         | 3.13                          | 4.37  | 6.09                      | 1.53   | 1.78  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@100V1400RPM |       | ASHRAE32<br>Fan            |          |     | (Condensing temperature 35°C (+95°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|-----|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |     | Power consumption<br>+/- 5%           | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                   | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -40                              | (-40) | 257                        | 65       | 75  | 45                                    | 0.66                          | 0.76                    | 5.75                      | 1.45      | 1.68  |
| -35                              | (-31) | 332                        | 84       | 97  | 53                                    | 0.77                          | 0.98                    | 6.32                      | 1.59      | 1.85  |
| -30                              | (-22) | 422                        | 106      | 124 | 60                                    | 0.87                          | 1.25                    | 6.98                      | 1.76      | 2.05  |
| -25                              | (-13) | 528                        | 133      | 155 | 68                                    | 0.96                          | 1.57                    | 7.79                      | 1.96      | 2.28  |
| -20                              | (- 4) | 654                        | 165      | 192 | 74                                    | 1.05                          | 1.95                    | 8.78                      | 2.21      | 2.57  |
| -15                              | (+ 5) | 804                        | 203      | 236 | 80                                    | 1.12                          | 2.41                    | 10.02                     | 2.52      | 2.94  |
| -10                              | (+14) | 981                        | 247      | 287 | 85                                    | 1.18                          | 2.95                    | 11.54                     | 2.91      | 3.38  |
| -5                               | (+23) | 1188                       | 299      | 348 | 89                                    | 1.23                          | 3.59                    | 13.40                     | 3.38      | 3.93  |
| 0                                | (+32) | 1429                       | 360      | 419 | 91                                    | 1.26                          | 4.34                    | 15.65                     | 3.94      | 4.59  |

| TEST CONDITIONS:<br>@100V1400RPM |       | ASHRAE32<br>Fan            |          |     | (Condensing temperature 45°C (+113°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |     | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -40                              | (-40) | 230                        | 58       | 67  | 46                                     | 0.67                          | 0.68                    | 5.04                      | 1.27      | 1.48  |
| -35                              | (-31) | 313                        | 79       | 92  | 56                                     | 0.81                          | 0.93                    | 5.61                      | 1.41      | 1.64  |
| -30                              | (-22) | 407                        | 103      | 119 | 66                                     | 0.94                          | 1.21                    | 6.20                      | 1.56      | 1.82  |
| -25                              | (-13) | 516                        | 130      | 151 | 75                                     | 1.06                          | 1.53                    | 6.85                      | 1.73      | 2.01  |
| -20                              | (- 4) | 642                        | 162      | 188 | 84                                     | 1.17                          | 1.91                    | 7.61                      | 1.92      | 2.23  |
| -15                              | (+ 5) | 789                        | 199      | 231 | 92                                     | 1.27                          | 2.36                    | 8.52                      | 2.15      | 2.50  |
| -10                              | (+14) | 960                        | 242      | 281 | 99                                     | 1.36                          | 2.89                    | 9.65                      | 2.43      | 2.83  |
| -5                               | (+23) | 1159                       | 292      | 339 | 105                                    | 1.43                          | 3.50                    | 11.03                     | 2.78      | 3.23  |
| 0                                | (+32) | 1388                       | 350      | 407 | 109                                    | 1.49                          | 4.22                    | 12.72                     | 3.20      | 3.73  |

| TEST CONDITIONS:<br>@100V1400RPM |       | ASHRAE32<br>Fan            |          |     | (Condensing temperature 55°C (+131°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |     | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -40                              | (-40) | 195                        | 49       | 57  | 46                                     | 0.68                          | 0.57                    | 4.19                      | 1.05      | 1.23  |
| -35                              | (-31) | 285                        | 72       | 83  | 59                                     | 0.85                          | 0.84                    | 4.85                      | 1.22      | 1.42  |
| -30                              | (-22) | 383                        | 97       | 112 | 71                                     | 1.01                          | 1.14                    | 5.44                      | 1.37      | 1.59  |
| -25                              | (-13) | 493                        | 124      | 144 | 83                                     | 1.16                          | 1.46                    | 6.01                      | 1.52      | 1.76  |
| -20                              | (- 4) | 617                        | 156      | 181 | 94                                     | 1.30                          | 1.84                    | 6.61                      | 1.67      | 1.94  |
| -15                              | (+ 5) | 760                        | 192      | 223 | 104                                    | 1.43                          | 2.28                    | 7.29                      | 1.84      | 2.14  |
| -10                              | (+14) | 925                        | 233      | 271 | 114                                    | 1.55                          | 2.78                    | 8.10                      | 2.04      | 2.37  |
| -5                               | (+23) | 1114                       | 281      | 326 | 122                                    | 1.65                          | 3.37                    | 9.09                      | 2.29      | 2.66  |
| 0                                | (+32) | 1331                       | 335      | 390 | 129                                    | 1.74                          | 4.05                    | 10.30                     | 2.59      | 3.02  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@100V3000RPM |                            | ASHRAE32<br>Fan |         |                             | (Condensing temperature 35°C (+95°F)) |                         |                           |        |          |           |
|----------------------------------|----------------------------|-----------------|---------|-----------------------------|---------------------------------------|-------------------------|---------------------------|--------|----------|-----------|
| Evaporating temperature          | Cooling capacity<br>+/- 5% |                 |         | Power consumption<br>+/- 5% | Current consumption<br>+/- 5%         | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |        |          |           |
|                                  | °C                         | (°F)            | [Btu/h] | [kcal/h]                    | [W]                                   | [W]                     | [A]                       | [kg/h] | [Btu/Wh] | [kcal/Wh] |
| -40                              | (-40)                      | 555             | 140     | 163                         | 104                                   | 1.43                    | 1.64                      | 5.34   | 1.34     | 1.56      |
| -35                              | (-31)                      | 720             | 181     | 211                         | 119                                   | 1.62                    | 2.13                      | 6.03   | 1.52     | 1.77      |
| -30                              | (-22)                      | 914             | 230     | 268                         | 136                                   | 1.81                    | 2.71                      | 6.74   | 1.70     | 1.97      |
| -25                              | (-13)                      | 1144            | 288     | 335                         | 152                                   | 2.01                    | 3.40                      | 7.53   | 1.90     | 2.21      |
| -20                              | (- 4)                      | 1418            | 357     | 416                         | 168                                   | 2.21                    | 4.23                      | 8.45   | 2.13     | 2.48      |
| -15                              | (+ 5)                      | 1742            | 439     | 511                         | 182                                   | 2.39                    | 5.22                      | 9.56   | 2.41     | 2.80      |
| -10                              | (+14)                      | 2124            | 535     | 622                         | 195                                   | 2.55                    | 6.40                      | 10.92  | 2.75     | 3.20      |
| -5                               | (+23)                      | 2571            | 648     | 753                         | 205                                   | 2.68                    | 7.78                      | 12.58  | 3.17     | 3.69      |
| 0                                | (+32)                      | 3089            | 778     | 905                         | 211                                   | 2.77                    | 9.39                      | 14.60  | 3.68     | 4.28      |

| TEST CONDITIONS:<br>@100V3000RPM |                            | ASHRAE32<br>Fan |         |                             | (Condensing temperature 45°C (+113°F)) |                         |                           |        |          |           |
|----------------------------------|----------------------------|-----------------|---------|-----------------------------|--|-------------------------|---------------------------|--------|----------|-----------|
| Evaporating temperature          | Cooling capacity<br>+/- 5% |                 |         | Power consumption<br>+/- 5% | Current consumption<br>+/- 5%          | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |        |          |           |
|                                  | °C                         | (°F)            | [Btu/h] | [kcal/h]                    | [W]                                    | [W]                     | [A]                       | [kg/h] | [Btu/Wh] | [kcal/Wh] |
| -40                              | (-40)                      | 512             | 129     | 150                         | 106                                    | 1.50                    | 1.51                      | 4.81   | 1.21     | 1.41      |
| -35                              | (-31)                      | 686             | 173     | 201                         | 124                                    | 1.72                    | 2.03                      | 5.54   | 1.39     | 1.62      |
| -30                              | (-22)                      | 882             | 222     | 258                         | 142                                    | 1.95                    | 2.61                      | 6.21   | 1.57     | 1.82      |
| -25                              | (-13)                      | 1107            | 279     | 324                         | 161                                    | 2.18                    | 3.29                      | 6.89   | 1.74     | 2.02      |
| -20                              | (- 4)                      | 1369            | 345     | 401                         | 180                                    | 2.40                    | 4.08                      | 7.64   | 1.92     | 2.24      |
| -15                              | (+ 5)                      | 1673            | 422     | 490                         | 197                                    | 2.61                    | 5.01                      | 8.50   | 2.14     | 2.49      |
| -10                              | (+14)                      | 2029            | 511     | 594                         | 213                                    | 2.79                    | 6.10                      | 9.53   | 2.40     | 2.79      |
| -5                               | (+23)                      | 2441            | 615     | 715                         | 226                                    | 2.94                    | 7.38                      | 10.79  | 2.72     | 3.16      |
| 0                                | (+32)                      | 2918            | 735     | 855                         | 236                                    | 3.05                    | 8.87                      | 12.34  | 3.11     | 3.62      |

| TEST CONDITIONS:<br>@100V3000RPM |                            | ASHRAE32<br>Fan |         |                             | (Condensing temperature 55°C (+131°F)) |                         |                           |        |          |           |
|----------------------------------|----------------------------|-----------------|---------|-----------------------------|--|-------------------------|---------------------------|--------|----------|-----------|
| Evaporating temperature          | Cooling capacity<br>+/- 5% |                 |         | Power consumption<br>+/- 5% | Current consumption<br>+/- 5%          | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |        |          |           |
|                                  | °C                         | (°F)            | [Btu/h] | [kcal/h]                    | [W]                                    | [W]                     | [A]                       | [kg/h] | [Btu/Wh] | [kcal/Wh] |
| -40                              | (-40)                      | 435             | 110     | 127                         | 105                                    | 1.48                    | 1.28                      | 4.15   | 1.05     | 1.22      |
| -35                              | (-31)                      | 635             | 160     | 186                         | 128                                    | 1.79                    | 1.88                      | 4.92   | 1.24     | 1.44      |
| -30                              | (-22)                      | 851             | 214     | 249                         | 152                                    | 2.11                    | 2.52                      | 5.57   | 1.40     | 1.63      |
| -25                              | (-13)                      | 1088            | 274     | 319                         | 177                                    | 2.42                    | 3.23                      | 6.16   | 1.55     | 1.80      |
| -20                              | (- 4)                      | 1355            | 341     | 397                         | 202                                    | 2.72                    | 4.04                      | 6.73   | 1.70     | 1.97      |
| -15                              | (+ 5)                      | 1657            | 418     | 486                         | 225                                    | 3.00                    | 4.96                      | 7.35   | 1.85     | 2.15      |
| -10                              | (+14)                      | 2003            | 505     | 587                         | 248                                    | 3.26                    | 6.03                      | 8.07   | 2.03     | 2.36      |
| -5                               | (+23)                      | 2400            | 605     | 703                         | 268                                    | 3.48                    | 7.25                      | 8.94   | 2.25     | 2.62      |
| 0                                | (+32)                      | 2853            | 719     | 836                         | 285                                    | 3.65                    | 8.67                      | 10.03  | 2.53     | 2.94      |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@100V3600RPM |       | ASHRAE32<br>Fan            |          |      | (Condensing temperature 35°C (+95°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|------|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |      | Power consumption<br>+/- 5%           | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W]  | [W]                                   | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -40                              | (-40) | 662                        | 167      | 194  | 130                                   | 1.75                          | 1.96                    | 5.06                      | 1.28      | 1.48  |
| -35                              | (-31) | 852                        | 215      | 250  | 149                                   | 1.99                          | 2.52                    | 5.71                      | 1.44      | 1.67  |
| -30                              | (-22) | 1098                       | 277      | 322  | 170                                   | 2.25                          | 3.26                    | 6.44                      | 1.62      | 1.89  |
| -25                              | (-13) | 1400                       | 353      | 410  | 192                                   | 2.52                          | 4.16                    | 7.27                      | 1.83      | 2.13  |
| -20                              | (- 4) | 1756                       | 443      | 515  | 213                                   | 2.78                          | 5.24                    | 8.23                      | 2.08      | 2.41  |
| -15                              | (+ 5) | 2165                       | 546      | 634  | 232                                   | 3.02                          | 6.49                    | 9.35                      | 2.36      | 2.74  |
| -10                              | (+14) | 2624                       | 661      | 769  | 248                                   | 3.21                          | 7.90                    | 10.64                     | 2.68      | 3.12  |
| -5                               | (+23) | 3134                       | 790      | 918  | 259                                   | 3.35                          | 9.48                    | 12.14                     | 3.06      | 3.56  |
| 0                                | (+32) | 3691                       | 930      | 1082 | 265                                   | 3.42                          | 11.22                   | 13.86                     | 3.49      | 4.06  |

| TEST CONDITIONS:<br>@100V3600RPM |       | ASHRAE32<br>Fan            |          |      | (Condensing temperature 45°C (+113°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |      | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W]  | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -40                              | (-40) | 601                        | 151      | 176  | 136                                    | 1.83                          | 1.77                    | 4.44                      | 1.12      | 1.30  |
| -35                              | (-31) | 784                        | 197      | 230  | 156                                    | 2.08                          | 2.32                    | 5.05                      | 1.27      | 1.48  |
| -30                              | (-22) | 1021                       | 257      | 299  | 179                                    | 2.37                          | 3.03                    | 5.70                      | 1.44      | 1.67  |
| -25                              | (-13) | 1313                       | 331      | 385  | 203                                    | 2.67                          | 3.90                    | 6.41                      | 1.62      | 1.88  |
| -20                              | (- 4) | 1656                       | 417      | 485  | 228                                    | 2.97                          | 4.94                    | 7.21                      | 1.82      | 2.11  |
| -15                              | (+ 5) | 2050                       | 517      | 601  | 251                                    | 3.25                          | 6.14                    | 8.11                      | 2.04      | 2.38  |
| -10                              | (+14) | 2493                       | 628      | 730  | 272                                    | 3.50                          | 7.50                    | 9.15                      | 2.30      | 2.68  |
| -5                               | (+23) | 2983                       | 752      | 874  | 289                                    | 3.71                          | 9.02                    | 10.34                     | 2.61      | 3.03  |
| 0                                | (+32) | 3519                       | 887      | 1031 | 301                                    | 3.85                          | 10.70                   | 11.72                     | 2.95      | 3.43  |

| TEST CONDITIONS:<br>@100V3600RPM |       | ASHRAE32<br>Fan            |          |     | (Condensing temperature 55°C (+131°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |     | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -40                              | (-40) | 571                        | 144      | 167 | 140                                    | 1.86                          | 1.69                    | 4.04                      | 1.02      | 1.18  |
| -35                              | (-31) | 738                        | 186      | 216 | 160                                    | 2.13                          | 2.18                    | 4.64                      | 1.17      | 1.36  |
| -30                              | (-22) | 957                        | 241      | 281 | 185                                    | 2.43                          | 2.84                    | 5.24                      | 1.32      | 1.53  |
| -25                              | (-13) | 1228                       | 310      | 360 | 211                                    | 2.76                          | 3.65                    | 5.84                      | 1.47      | 1.71  |
| -20                              | (- 4) | 1549                       | 390      | 454 | 239                                    | 3.10                          | 4.62                    | 6.49                      | 1.64      | 1.90  |
| -15                              | (+ 5) | 1919                       | 484      | 562 | 266                                    | 3.43                          | 5.75                    | 7.21                      | 1.82      | 2.11  |
| -10                              | (+14) | 2335                       | 588      | 684 | 291                                    | 3.74                          | 7.03                    | 8.01                      | 2.02      | 2.35  |
| -5                               | (+23) | 2797                       | 705      | 820 | 313                                    | 4.01                          | 8.46                    | 8.93                      | 2.25      | 2.62  |
| 0                                | (+32) | 3303                       | 832      | 968 | 331                                    | 4.22                          | 10.04                   | 9.98                      | 2.52      | 2.92  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@100V4500RPM |       | ASHRAE32<br>Fan            |          |      | (Condensing temperature 35°C (+95°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|------|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |      | Power consumption<br>+/- 5%           | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W]  | [W]                                   | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -40                              | (-40) | 774                        | 195      | 227  | 156                                   | 2.08                          | 2.29                    | 4.96                      | 1.25      | 1.45  |
| -35                              | (-31) | 982                        | 247      | 288  | 175                                   | 2.32                          | 2.91                    | 5.59                      | 1.41      | 1.64  |
| -30                              | (-22) | 1219                       | 307      | 357  | 193                                   | 2.53                          | 3.61                    | 6.32                      | 1.59      | 1.85  |
| -25                              | (-13) | 1494                       | 376      | 438  | 209                                   | 2.73                          | 4.44                    | 7.16                      | 1.80      | 2.10  |
| -20                              | (- 4) | 1817                       | 458      | 532  | 223                                   | 2.91                          | 5.42                    | 8.15                      | 2.05      | 2.39  |
| -15                              | (+ 5) | 2196                       | 553      | 643  | 237                                   | 3.07                          | 6.58                    | 9.29                      | 2.34      | 2.72  |
| -10                              | (+14) | 2640                       | 665      | 774  | 249                                   | 3.22                          | 7.95                    | 10.63                     | 2.68      | 3.11  |
| -5                               | (+23) | 3159                       | 796      | 926  | 260                                   | 3.35                          | 9.56                    | 12.17                     | 3.07      | 3.57  |
| 0                                | (+32) | 3763                       | 948      | 1103 | 270                                   | 3.47                          | 11.44                   | 13.94                     | 3.51      | 4.08  |

| TEST CONDITIONS:<br>@100V4500RPM |       | ASHRAE32<br>Fan            |          |      | (Condensing temperature 45°C (+113°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |      | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W]  | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -40                              | (-40) | 747                        | 188      | 219  | 160                                    | 2.12                          | 2.20                    | 4.69                      | 1.18      | 1.37  |
| -35                              | (-31) | 948                        | 239      | 278  | 182                                    | 2.40                          | 2.80                    | 5.21                      | 1.31      | 1.53  |
| -30                              | (-22) | 1173                       | 296      | 344  | 203                                    | 2.65                          | 3.48                    | 5.78                      | 1.46      | 1.69  |
| -25                              | (-13) | 1431                       | 361      | 419  | 222                                    | 2.89                          | 4.25                    | 6.44                      | 1.62      | 1.89  |
| -20                              | (- 4) | 1731                       | 436      | 507  | 240                                    | 3.12                          | 5.16                    | 7.20                      | 1.81      | 2.11  |
| -15                              | (+ 5) | 2081                       | 524      | 610  | 257                                    | 3.32                          | 6.23                    | 8.08                      | 2.04      | 2.37  |
| -10                              | (+14) | 2492                       | 628      | 730  | 273                                    | 3.52                          | 7.50                    | 9.12                      | 2.30      | 2.67  |
| -5                               | (+23) | 2972                       | 749      | 871  | 288                                    | 3.69                          | 8.99                    | 10.32                     | 2.60      | 3.02  |
| 0                                | (+32) | 3531                       | 890      | 1035 | 302                                    | 3.86                          | 10.73                   | 11.72                     | 2.95      | 3.43  |

| TEST CONDITIONS:<br>@100V4500RPM |       | ASHRAE32<br>Fan            |          |     | (Condensing temperature 55°C (+131°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |     | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -40                              | (-40) | 709                        | 179      | 208 | 163                                    | 2.16                          | 2.09                    | 4.34                      | 1.09      | 1.27  |
| -35                              | (-31) | 907                        | 229      | 266 | 188                                    | 2.47                          | 2.69                    | 4.82                      | 1.21      | 1.41  |
| -30                              | (-22) | 1125                       | 283      | 330 | 212                                    | 2.76                          | 3.34                    | 5.32                      | 1.34      | 1.56  |
| -25                              | (-13) | 1369                       | 345      | 401 | 234                                    | 3.04                          | 4.07                    | 5.87                      | 1.48      | 1.72  |
| -20                              | (- 4) | 1650                       | 416      | 484 | 255                                    | 3.30                          | 4.92                    | 6.49                      | 1.63      | 1.90  |
| -15                              | (+ 5) | 1977                       | 498      | 579 | 275                                    | 3.55                          | 5.92                    | 7.19                      | 1.81      | 2.11  |
| -10                              | (+14) | 2358                       | 594      | 691 | 294                                    | 3.78                          | 7.09                    | 8.01                      | 2.02      | 2.35  |
| -5                               | (+23) | 2803                       | 706      | 821 | 313                                    | 4.00                          | 8.48                    | 8.96                      | 2.26      | 2.62  |
| 0                                | (+32) | 3321                       | 837      | 973 | 330                                    | 4.21                          | 10.09                   | 10.06                     | 2.54      | 2.95  |

### F - EXTERNAL CHARACTERISTICS

|                         |                               |      |                          |
|-------------------------|-------------------------------|------|--------------------------|
| 1 Base plate            | Universal EG/F/AMEM version 2 |      |                          |
| 2 Tray holder           | No                            |      |                          |
| 3 Connectors            |                               |      |                          |
| 3.1 SUCTION             | 8.2 +0.12/-0.08               | [mm] | (0.323" +0.005"/-0.003") |
| 3.1.1 Material          | Copper                        |      |                          |
| 3.1.2 Shape             | Straight                      |      |                          |
| 3.2 DISCHARGE           | 6.5 +0.12/-0.08               | [mm] | (0.256" +0.005"/-0.003") |
| 3.2.1 Material          | Copper                        |      |                          |
| 3.2.2 Shape             | Straight                      |      |                          |
| 3.3 PROCESS             | 6.5 +0.12/-0.08               | [mm] | (0.256" +0.005"/-0.003") |
| 3.3.1 Material          | Copper                        |      |                          |
| 3.3.2 Shape             | Straight                      |      |                          |
| 3.4 Oil cooler (Copper) | No                            | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs                  |      |                          |