

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | VEM X11C+       |
| Nominal Voltage/Frequency | 230 V 40-150 Hz |
| Engineering Number        | 513906133       |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|                                    |                                   |                                   |              |
|------------------------------------|-----------------------------------|-----------------------------------|--------------|
| 1 Type                             | Hermetic reciprocating compressor |                                   |              |
| 2 Refrigerant                      | R-600a                            |                                   |              |
| 3 Nominal voltage and frequency    | 230 / 40-150                      | [ V / Hz ]                        |              |
| 4 Application type                 | Low Back Pressure                 |                                   |              |
| 4.1 Evaporating temperature range  | -35°C to -10°C                    | (-31°F to 14°F)                   |              |
| 5 Motor type                       | BPM                               |                                   |              |
| 6 Starting torque                  | LST - Low Starting Torque         |                                   |              |
| 7 Expansion device                 | Capillary tube                    |                                   |              |
| 8 Compressor cooling               |                                   | Operating voltage range           |              |
|                                    |                                   | 50 Hz                             | 60 Hz        |
| 8.1 LBP (32°C Ambient temperature) | Static                            | 187 to 255 V                      | 187 to 255 V |
| 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                      | 6.9                               | [kgf/cm <sup>2</sup> ] (98 psig)  | / °C - °F    |
| 9.2 Peak                           | 7.8                               | [kgf/cm <sup>2</sup> ] (111 psig) | / °C - °F    |
| 10 Maximum winding temperature     | 130                               | [ °C ]                            |              |

### B - MECHANICAL DATA

|                               |                |                                  |
|-------------------------------|----------------|----------------------------------|
| 1 Commercial designation      | 1/5            | [hp]                             |
| 2 Displacement                | 11.14          | [cm <sup>3</sup> ] (0.680 cu.in) |
| 2.1 Bore [mm]                 | 26.000         |                                  |
| 2.2 Stroke [mm]               | 21.000         |                                  |
| 3 Lubricant charge            | 210            | [ml] (7.10 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 |                                  |
| 4 Weight (with oil charge)    | 7.4            | [kg] (16.31 lb.)                 |
| 5 Nitrogen charge             | -              | [kgf/cm <sup>2</sup> ]           |

### C - ELETRICAL DATA

|  |                                   |                                    |
|--|-----------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 230 V 40-150 Hz 3 ~ (Three phase) |                                    |
| 2 Starting device type                       | Inverter                          |                                    |
| 2.1 Starting device                          | PFC CF02D01 M                     |                                    |
| 3 Start capacitor                            | -                                 | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | -                                 | [µF(VAC minimum)]                  |
| 5 Motor protection                           | SP(PFC CF02D01M)                  |                                    |
| 6 Start winding resistance                   | 8.10                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 8.10                              | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (40/150 Hz)    | -                                 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (40/150 Hz) | -                                 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (40/150 Hz)  | -                                 | [A] - Measured according to UL 984 |
| 11 Approval boards certification             | CCC - VDE                         |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|   |          |     |                                     |                               |   |                           |  |       |
|---|----------|-----|-------------------------------------|-------------------------------|---|---------------------------|--|-------|
| TEST CONDITIONS:<br><b>@220V1200RPM</b> |          |     | <b>ASHRAELBP32</b><br><b>Static</b> |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-23.3°C (-9.94°F)</b><br><b>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] |
| 288                                     | 73       | 84  | 47                                  | 0.35                          | 0.90  | 6.19                      | 1.56   | 1.81  |

|   |          |     |                                     |                               |   |                           |  |       |
|---|----------|-----|-------------------------------------|-------------------------------|---|---------------------------|--|-------|
| TEST CONDITIONS:<br><b>@220V2000RPM</b> |          |     | <b>ASHRAELBP32</b><br><b>Static</b> |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-23.3°C (-9.94°F)</b><br><b>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] |
| 366                                     | 92       | 107 | 56                                  | 0.42                          | 1.15  | 6.56                      | 1.65   | 1.92  |

|   |          |     |                                     |                               |   |                           |  |       |
|---|----------|-----|-------------------------------------|-------------------------------|---|---------------------------|--|-------|
| TEST CONDITIONS:<br><b>@220V3000RPM</b> |          |     | <b>ASHRAELBP32</b><br><b>Static</b> |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-23.3°C (-9.94°F)</b><br><b>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] |
| 670                                     | 169      | 196 | 104                                 | 0.78                          | 2.10  | 6.45                      | 1.63   | 1.89  |

|   |          |     |                                     |                               |   |                           |  |       |
|---|----------|-----|-------------------------------------|-------------------------------|---|---------------------------|--|-------|
| TEST CONDITIONS:<br><b>@220V3900RPM</b> |          |     | <b>ASHRAELBP32</b><br><b>Static</b> |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-23.3°C (-9.94°F)</b><br><b>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] |
| 787                                     | 198      | 231 | 131                                 | 1.05                          | 2.47  | 5.99                      | 1.51   | 1.76  |

|   |          |     |                                     |                               |   |                           |  |       |
|---|----------|-----|-------------------------------------|-------------------------------|---|---------------------------|--|-------|
| TEST CONDITIONS:<br><b>@220V4300RPM</b> |          |     | <b>ASHRAELBP32</b><br><b>Static</b> |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-23.3°C (-9.94°F)</b><br><b>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] |
| 880                                     | 222      | 258 | 147                                 | 1.25                          | 2.76  | 5.97                      | 1.50   | 1.75  |

|   |          |     |                                     |                               |   |                           |  |       |
|---|----------|-----|-------------------------------------|-------------------------------|---|---------------------------|--|-------|
| TEST CONDITIONS:<br><b>@220V4500RPM</b> |          |     | <b>ASHRAELBP32</b><br><b>Static</b> |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-23.3°C (-9.94°F)</b><br><b>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] |
| 911                                     | 230      | 267 | 155                                 | 1.34                          | 2.86  | 5.88                      | 1.48   | 1.72  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V1200RPM |                            | ASHRAE32<br>Static |         |                             | (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] |
| -35                              | (-31)                      | 166                | 42      | 49                          | 27                                    | 0.21                    | 0.52                      | 6.25   | 1.58     | 1.83      |
| -30                              | (-22)                      | 221                | 56      | 65                          | 29                                    | 0.22                    | 0.69                      | 7.51   | 1.89     | 2.20      |
| -25                              | (-13)                      | 286                | 72      | 84                          | 33                                    | 0.24                    | 0.90                      | 8.57   | 2.16     | 2.51      |
| -20                              | (- 4)                      | 364                | 92      | 107                         | 38                                    | 0.27                    | 1.14                      | 9.57   | 2.41     | 2.80      |
| -15                              | (+ 5)                      | 456                | 115     | 134                         | 43                                    | 0.30                    | 1.44                      | 10.63  | 2.68     | 3.12      |
| -10                              | (+14)                      | 566                | 143     | 166                         | 48                                    | 0.33                    | 1.79                      | 11.91  | 3.00     | 3.49      |

| TEST CONDITIONS:<br>@220V1200RPM |                            | ASHRAE32<br>Static |         |                             | (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] |
| -35                              | (-31)                      | 148                | 37      | 43                          | 25                                     | 0.19                    | 0.46                      | 5.91   | 1.49     | 1.73      |
| -30                              | (-22)                      | 202                | 51      | 59                          | 30                                     | 0.22                    | 0.63                      | 6.68   | 1.68     | 1.96      |
| -25                              | (-13)                      | 266                | 67      | 78                          | 36                                     | 0.26                    | 0.84                      | 7.32   | 1.85     | 2.15      |
| -20                              | (- 4)                      | 343                | 87      | 101                         | 43                                     | 0.30                    | 1.08                      | 7.96   | 2.01     | 2.33      |
| -15                              | (+ 5)                      | 435                | 110     | 128                         | 50                                     | 0.34                    | 1.37                      | 8.74   | 2.20     | 2.56      |
| -10                              | (+14)                      | 545                | 137     | 160                         | 56                                     | 0.38                    | 1.72                      | 9.79   | 2.47     | 2.87      |

| TEST CONDITIONS:<br>@220V1200RPM |                            | ASHRAE32<br>Static |         |                             | (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] |
| -35                              | (-31)                      | 135                | 34      | 39                          | 26                                     | 0.20                    | 0.42                      | 5.12   | 1.29     | 1.50      |
| -30                              | (-22)                      | 187                | 47      | 55                          | 33                                     | 0.25                    | 0.59                      | 5.67   | 1.43     | 1.66      |
| -25                              | (-13)                      | 250                | 63      | 73                          | 41                                     | 0.29                    | 0.78                      | 6.16   | 1.55     | 1.80      |
| -20                              | (- 4)                      | 325                | 82      | 95                          | 48                                     | 0.34                    | 1.02                      | 6.70   | 1.69     | 1.96      |
| -15                              | (+ 5)                      | 416                | 105     | 122                         | 55                                     | 0.38                    | 1.31                      | 7.45   | 1.88     | 2.18      |
| -10                              | (+14)                      | 525                | 132     | 154                         | 61                                     | 0.42                    | 1.66                      | 8.52   | 2.15     | 2.50      |

| TEST CONDITIONS:<br>@220V1200RPM |                            | ASHRAE32<br>Static |         |                             | (Condensing temperature 65°C (+149°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] |
| -35                              | (-31)                      | 126                | 32      | 37                          | 28                                     | 0.21                    | 0.39                      | 4.43   | 1.12     | 1.30      |
| -30                              | (-22)                      | 176                | 44      | 52                          | 35                                     | 0.25                    | 0.55                      | 5.02   | 1.27     | 1.47      |
| -25                              | (-13)                      | 236                | 60      | 69                          | 42                                     | 0.29                    | 0.74                      | 5.60   | 1.41     | 1.64      |
| -20                              | (- 4)                      | 310                | 78      | 91                          | 49                                     | 0.34                    | 0.97                      | 6.31   | 1.59     | 1.85      |
| -15                              | (+ 5)                      | 398                | 100     | 117                         | 55                                     | 0.37                    | 1.25                      | 7.28   | 1.84     | 2.13      |
| -10                              | (+14)                      | 505                | 127     | 148                         | 59                                     | 0.40                    | 1.59                      | 8.65   | 2.18     | 2.53      |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V2000RPM |                            | ASHRAE32<br>Static |         |                             | (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]  |
| -35                              | (-31)                      | 280                | 71      | 82                          | 43                                    | 0.33                    | 0.88                      | 6.43  | 1.62 | 1.88 |
| -30                              | (-22)                      | 348                | 88      | 102                         | 49                                    | 0.38                    | 1.09                      | 7.06  | 1.78 | 2.07 |
| -25                              | (-13)                      | 446                | 112     | 131                         | 56                                    | 0.43                    | 1.40                      | 8.00  | 2.01 | 2.34 |
| -20                              | (- 4)                      | 575                | 145     | 169                         | 63                                    | 0.48                    | 1.81                      | 9.15  | 2.31 | 2.68 |
| -15                              | (+ 5)                      | 736                | 186     | 216                         | 71                                    | 0.54                    | 2.32                      | 10.43 | 2.63 | 3.06 |
| -10                              | (+14)                      | 930                | 234     | 272                         | 79                                    | 0.60                    | 2.93                      | 11.76 | 2.96 | 3.44 |

| TEST CONDITIONS:<br>@220V2000RPM |                            | ASHRAE32<br>Static |         |                             | (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]  |
| -35                              | (-31)                      | 250                | 63      | 73                          | 44                                     | 0.34                    | 0.78                      | 5.70  | 1.44 | 1.67 |
| -30                              | (-22)                      | 323                | 81      | 95                          | 52                                     | 0.40                    | 1.01                      | 6.22  | 1.57 | 1.82 |
| -25                              | (-13)                      | 429                | 108     | 126                         | 61                                     | 0.46                    | 1.35                      | 7.02  | 1.77 | 2.06 |
| -20                              | (- 4)                      | 568                | 143     | 167                         | 70                                     | 0.53                    | 1.79                      | 8.03  | 2.02 | 2.35 |
| -15                              | (+ 5)                      | 742                | 187     | 218                         | 81                                     | 0.61                    | 2.34                      | 9.15  | 2.31 | 2.68 |
| -10                              | (+14)                      | 951                | 240     | 279                         | 93                                     | 0.70                    | 3.00                      | 10.29 | 2.59 | 3.01 |

| TEST CONDITIONS:<br>@220V2000RPM |                            | ASHRAE32<br>Static |         |                             | (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]  |
| -35                              | (-31)                      | 198                | 50      | 58                          | 43                                     | 0.33                    | 0.62                      | 4.87 | 1.23 | 1.43 |
| -30                              | (-22)                      | 270                | 68      | 79                          | 53                                     | 0.41                    | 0.85                      | 5.28 | 1.33 | 1.55 |
| -25                              | (-13)                      | 377                | 95      | 111                         | 63                                     | 0.48                    | 1.18                      | 5.97 | 1.50 | 1.75 |
| -20                              | (- 4)                      | 521                | 131     | 153                         | 76                                     | 0.57                    | 1.64                      | 6.84 | 1.72 | 2.00 |
| -15                              | (+ 5)                      | 702                | 177     | 206                         | 89                                     | 0.68                    | 2.21                      | 7.81 | 1.97 | 2.29 |
| -10                              | (+14)                      | 920                | 232     | 270                         | 104                                    | 0.80                    | 2.90                      | 8.78 | 2.21 | 2.57 |

| TEST CONDITIONS:<br>@220V2000RPM |                            | ASHRAE32<br>Static |         |                             | (Condensing temperature 65°C (+149°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]  |
| -35                              | (-31)                      | 212                | 53      | 62                          | 45                                     | 0.34                    | 0.66                      | 4.59 | 1.16 | 1.34 |
| -30                              | (-22)                      | 277                | 70      | 81                          | 56                                     | 0.43                    | 0.87                      | 4.91 | 1.24 | 1.44 |
| -25                              | (-13)                      | 379                | 96      | 111                         | 69                                     | 0.53                    | 1.19                      | 5.48 | 1.38 | 1.61 |
| -20                              | (- 4)                      | 521                | 131     | 153                         | 84                                     | 0.64                    | 1.64                      | 6.23 | 1.57 | 1.83 |
| -15                              | (+ 5)                      | 702                | 177     | 206                         | 100                                    | 0.77                    | 2.21                      | 7.06 | 1.78 | 2.07 |
| -10                              | (+14)                      | 923                | 232     | 270                         | 118                                    | 0.92                    | 2.91                      | 7.87 | 1.98 | 2.31 |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V3000RPM |                            | ASHRAE32<br>Static |          |                             | (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] |
| -35 (-31)                        | 381                        | 96                 | 112      | 65                          | 0.48                                  | 1.19                    | 5.88                      | 1.48     | 1.72      |       |
| -30 (-22)                        | 510                        | 128                | 149      | 75                          | 0.56                                  | 1.60                    | 6.76                      | 1.70     | 1.98      |       |
| -25 (-13)                        | 662                        | 167                | 194      | 87                          | 0.65                                  | 2.08                    | 7.62                      | 1.92     | 2.23      |       |
| -20 (- 4)                        | 843                        | 213                | 247      | 100                         | 0.77                                  | 2.65                    | 8.48                      | 2.14     | 2.48      |       |
| -15 (+ 5)                        | 1057                       | 266                | 310      | 114                         | 0.89                                  | 3.33                    | 9.30                      | 2.34     | 2.72      |       |
| -10 (+14)                        | 1309                       | 330                | 383      | 130                         | 1.01                                  | 4.13                    | 10.08                     | 2.54     | 2.95      |       |

| TEST CONDITIONS:<br>@220V3000RPM |                            | ASHRAE32<br>Static |          |                             | (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] |
| -35 (-31)                        | 359                        | 90                 | 105      | 68                          | 0.52                                   | 1.12                    | 5.32                      | 1.34     | 1.56      |       |
| -30 (-22)                        | 487                        | 123                | 143      | 79                          | 0.60                                   | 1.53                    | 6.13                      | 1.54     | 1.80      |       |
| -25 (-13)                        | 641                        | 162                | 188      | 92                          | 0.69                                   | 2.01                    | 6.97                      | 1.76     | 2.04      |       |
| -20 (- 4)                        | 825                        | 208                | 242      | 105                         | 0.80                                   | 2.59                    | 7.82                      | 1.97     | 2.29      |       |
| -15 (+ 5)                        | 1042                       | 263                | 305      | 120                         | 0.92                                   | 3.28                    | 8.68                      | 2.19     | 2.54      |       |
| -10 (+14)                        | 1299                       | 327                | 381      | 136                         | 1.04                                   | 4.10                    | 9.52                      | 2.40     | 2.79      |       |

| TEST CONDITIONS:<br>@220V3000RPM |                            | ASHRAE32<br>Static |          |                             | (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] |
| -35 (-31)                        | 327                        | 83                 | 96       | 69                          | 0.53                                   | 1.03                    | 4.76                      | 1.20     | 1.39      |       |
| -30 (-22)                        | 453                        | 114                | 133      | 83                          | 0.63                                   | 1.42                    | 5.44                      | 1.37     | 1.59      |       |
| -25 (-13)                        | 605                        | 152                | 177      | 98                          | 0.74                                   | 1.90                    | 6.18                      | 1.56     | 1.81      |       |
| -20 (- 4)                        | 788                        | 199                | 231      | 113                         | 0.87                                   | 2.48                    | 6.97                      | 1.76     | 2.04      |       |
| -15 (+ 5)                        | 1006                       | 254                | 295      | 129                         | 1.00                                   | 3.17                    | 7.78                      | 1.96     | 2.28      |       |
| -10 (+14)                        | 1265                       | 319                | 371      | 147                         | 1.13                                   | 3.99                    | 8.62                      | 2.17     | 2.53      |       |

| TEST CONDITIONS:<br>@220V3000RPM |                            | ASHRAE32<br>Static |          |                             | (Condensing temperature 65°C (+149°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] |
| -35 (-31)                        | 296                        | 75                 | 87       | 65                          | 0.48                                   | 0.93                    | 4.53                      | 1.14     | 1.33      |       |
| -30 (-22)                        | 415                        | 105                | 122      | 83                          | 0.62                                   | 1.30                    | 5.01                      | 1.26     | 1.47      |       |
| -25 (-13)                        | 562                        | 142                | 165      | 101                         | 0.77                                   | 1.77                    | 5.59                      | 1.41     | 1.64      |       |
| -20 (- 4)                        | 742                        | 187                | 217      | 119                         | 0.93                                   | 2.33                    | 6.23                      | 1.57     | 1.83      |       |
| -15 (+ 5)                        | 959                        | 242                | 281      | 138                         | 1.09                                   | 3.02                    | 6.94                      | 1.75     | 2.03      |       |
| -10 (+14)                        | 1217                       | 307                | 357      | 158                         | 1.25                                   | 3.84                    | 7.70                      | 1.94     | 2.26      |       |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V4500RPM |                            | ASHRAE32<br>Static |          |                             | (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] |
| -35 (-31)                        | 542                        | 137                | 159      | 99                          | 0.73                                  | 1.70                    | 5.44                      | 1.37     | 1.59      |       |
| -30 (-22)                        | 661                        | 166                | 194      | 108                         | 0.95                                  | 2.07                    | 6.13                      | 1.54     | 1.80      |       |
| -25 (-13)                        | 866                        | 218                | 254      | 129                         | 1.19                                  | 2.71                    | 6.70                      | 1.69     | 1.96      |       |
| -20 (- 4)                        | 1129                       | 285                | 331      | 155                         | 1.40                                  | 3.55                    | 7.27                      | 1.83     | 2.13      |       |
| -15 (+ 5)                        | 1425                       | 359                | 418      | 180                         | 1.56                                  | 4.49                    | 7.94                      | 2.00     | 2.33      |       |
| -10 (+14)                        | 1726                       | 435                | 506      | 197                         | 1.65                                  | 5.44                    | 8.81                      | 2.22     | 2.58      |       |

| TEST CONDITIONS:<br>@220V4500RPM |                            | ASHRAE32<br>Static |          |                             | (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] |
| -35 (-31)                        | 499                        | 126                | 146      | 100                         | 0.77                                   | 1.56                    | 5.02                      | 1.27     | 1.47      |       |
| -30 (-22)                        | 647                        | 163                | 189      | 114                         | 1.00                                   | 2.03                    | 5.72                      | 1.44     | 1.68      |       |
| -25 (-13)                        | 868                        | 219                | 254      | 138                         | 1.23                                   | 2.72                    | 6.32                      | 1.59     | 1.85      |       |
| -20 (- 4)                        | 1135                       | 286                | 332      | 164                         | 1.43                                   | 3.57                    | 6.91                      | 1.74     | 2.02      |       |
| -15 (+ 5)                        | 1421                       | 358                | 416      | 188                         | 1.57                                   | 4.47                    | 7.60                      | 1.92     | 2.23      |       |
| -10 (+14)                        | 1698                       | 428                | 498      | 201                         | 1.62                                   | 5.36                    | 8.51                      | 2.15     | 2.49      |       |

| TEST CONDITIONS:<br>@220V4500RPM |                            | ASHRAE32<br>Static |          |                             | (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] |
| -35 (-31)                        | 455                        | 115                | 133      | 101                         | 0.77                                   | 1.42                    | 4.53                      | 1.14     | 1.33      |       |
| -30 (-22)                        | 620                        | 156                | 182      | 120                         | 1.03                                   | 1.94                    | 5.19                      | 1.31     | 1.52      |       |
| -25 (-13)                        | 845                        | 213                | 247      | 147                         | 1.28                                   | 2.65                    | 5.74                      | 1.45     | 1.68      |       |
| -20 (- 4)                        | 1103                       | 278                | 323      | 174                         | 1.49                                   | 3.47                    | 6.30                      | 1.59     | 1.85      |       |
| -15 (+ 5)                        | 1367                       | 344                | 400      | 196                         | 1.62                                   | 4.30                    | 6.96                      | 1.75     | 2.04      |       |
| -10 (+14)                        | 1609                       | 406                | 472      | 207                         | 1.66                                   | 5.08                    | 7.85                      | 1.98     | 2.30      |       |

| TEST CONDITIONS:<br>@220V4500RPM |                            | ASHRAE32<br>Static |          |                             | (Condensing temperature 65°C (+149°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] |
| -35 (-31)                        | 404                        | 102                | 118      | 94                          | 0.70                                   | 1.27                    | 4.32                      | 1.09     | 1.26      |       |
| -30 (-22)                        | 574                        | 145                | 168      | 118                         | 1.01                                   | 1.80                    | 4.87                      | 1.23     | 1.43      |       |
| -25 (-13)                        | 791                        | 199                | 232      | 148                         | 1.30                                   | 2.48                    | 5.32                      | 1.34     | 1.56      |       |
| -20 (- 4)                        | 1028                       | 259                | 301      | 177                         | 1.54                                   | 3.23                    | 5.78                      | 1.46     | 1.69      |       |
| -15 (+ 5)                        | 1259                       | 317                | 369      | 198                         | 1.69                                   | 3.96                    | 6.36                      | 1.60     | 1.86      |       |
| -10 (+14)                        | 1454                       | 366                | 426      | 205                         | 1.74                                   | 4.59                    | 7.16                      | 1.80     | 2.10      |       |

### F - EXTERNAL CHARACTERISTICS

|                         |                              |      |                          |
|-------------------------|------------------------------|------|--------------------------|
| 1 Base plate            | Universal EUEM               |      |                          |
| 2 Tray holder           | Yes                          |      |                          |
| 3 Connectors            |                              |      |                          |
| 3.1 SUCTION             | 6.2 +0.05/+0.05              | [mm] | (0.244" +0.002"/+0.002") |
| 3.1.1 Material          | Copper                       |      |                          |
| 3.1.2 Shape             | Slanted 40° up + 0° to Back  |      |                          |
| 3.2 DISCHARGE           | 4.9 +0.10/-0.05              | [mm] | (0.193" +0.004"/-0.002") |
| 3.2.1 Material          | Copper                       |      |                          |
| 3.2.2 Shape             | Slanted 0° up + 24° to Back  |      |                          |
| 3.3 PROCESS             | 6.2 +0.05/+0.05              | [mm] | (0.244" +0.002"/+0.002") |
| 3.3.1 Material          | Copper                       |      |                          |
| 3.3.2 Shape             | Slanted 40° up + 45° to Back |      |                          |
| 3.4 Oil cooler (Copper) | No                           | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs                 |      |                          |