

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | VES D11C        |
| Nominal Voltage/Frequency | 230 V 40-150 Hz |
| Engineering Number        | 513907252       |

### 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) | Static                            | 187 to 255 V                      | 187 to 255 V |
| 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      | 1/4+           | [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            | 190            | [ml] (6.42 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 |                                  |
| 4 Weight (with oil charge)    | 6.76           | [kg] (14.90 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                          | VES 2456 XX X X                   |                                    |
| 3 Start capacitor                            | -                                 | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | -                                 | [µF(VAC minimum)]                  |
| 5 Motor protection                           | INVERTER VES 2456X                |                                    |
| 6 Start winding resistance                   | 9.60                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 9.60                              | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (40/150 Hz)    | 2.10/2.10                         | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (40/150 Hz) | 2.10/2.10                         | [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>@220V1300RPM</b> |          |     | <b>CECOMAFLBP</b><br><b>Static</b> |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-25°C (-13°F)</b><br><b>55°C (131°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] |
| 219                                     | 55       | 64  | 42                                 | 0.32                          | 0.84  | 5.19                      | 1.31  | 1.52  |

|   |          |     |                                    |                               |   |                           |   |       |
|---|----------|-----|------------------------------------|-------------------------------|---|---------------------------|---|-------|
| TEST CONDITIONS:<br><b>@220V1600RPM</b> |          |     | <b>CECOMAFLBP</b><br><b>Static</b> |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-25°C (-13°F)</b><br><b>55°C (131°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] |
| 273                                     | 69       | 80  | 52                                 | 0.39                          | 1.04  | 5.28                      | 1.33  | 1.55  |

|   |          |     |                                    |                               |   |                           |   |       |
|---|----------|-----|------------------------------------|-------------------------------|---|---------------------------|---|-------|
| TEST CONDITIONS:<br><b>@220V2000RPM</b> |          |     | <b>CECOMAFLBP</b><br><b>Static</b> |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-25°C (-13°F)</b><br><b>55°C (131°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] |
| 348                                     | 88       | 102 | 66                                 | 0.49                          | 1.33  | 5.31                      | 1.34  | 1.56  |

|   |          |     |                                    |                               |   |                           |   |       |
|---|----------|-----|------------------------------------|-------------------------------|---|---------------------------|---|-------|
| TEST CONDITIONS:<br><b>@220V3000RPM</b> |          |     | <b>CECOMAFLBP</b><br><b>Static</b> |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-25°C (-13°F)</b><br><b>55°C (131°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] |
| 528                                     | 133      | 155 | 102                                | 0.74                          | 2.01  | 5.16                      | 1.30  | 1.51  |

|   |          |     |                                    |                               |   |                           |   |       |
|---|----------|-----|------------------------------------|-------------------------------|---|---------------------------|---|-------|
| TEST CONDITIONS:<br><b>@220V4500RPM</b> |          |     | <b>CECOMAFLBP</b><br><b>Static</b> |                               | Evaporating temperature<br>(Condensing temperature) |                           | <b>-25°C (-13°F)</b><br><b>55°C (131°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] |
| 714                                     | 180      | 209 | 149                                | 1.00                          | 2.72  | 4.80                      | 1.21  | 1.41  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V1300RPM |                            | CECOMAF<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)                        | 174                        | 44                | 51       | 28                          | 0.22                                  | 0.56                    | 6.28                      | 1.58     | 1.84      |       |
| -30 (-22)                        | 231                        | 58                | 68       | 32                          | 0.26                                  | 0.74                    | 7.13                      | 1.80     | 2.09      |       |
| -25 (-13)                        | 302                        | 76                | 88       | 37                          | 0.29                                  | 0.97                    | 8.08                      | 2.04     | 2.37      |       |
| -20 (- 4)                        | 387                        | 97                | 113      | 42                          | 0.33                                  | 1.24                    | 9.15                      | 2.31     | 2.68      |       |
| -15 (+ 5)                        | 488                        | 123               | 143      | 47                          | 0.36                                  | 1.57                    | 10.40                     | 2.62     | 3.05      |       |
| -10 (+14)                        | 607                        | 153               | 178      | 51                          | 0.39                                  | 1.96                    | 11.87                     | 2.99     | 3.48      |       |

| TEST CONDITIONS:<br>@220V1300RPM |                            | CECOMAF<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)                        | 147                        | 37                | 43       | 29                          | 0.23                                   | 0.51                    | 5.15                      | 1.30     | 1.51      |       |
| -30 (-22)                        | 199                        | 50                | 58       | 34                          | 0.27                                   | 0.69                    | 5.83                      | 1.47     | 1.71      |       |
| -25 (-13)                        | 262                        | 66                | 77       | 40                          | 0.32                                   | 0.91                    | 6.55                      | 1.65     | 1.92      |       |
| -20 (- 4)                        | 340                        | 86                | 100      | 46                          | 0.36                                   | 1.18                    | 7.33                      | 1.85     | 2.15      |       |
| -15 (+ 5)                        | 432                        | 109               | 127      | 52                          | 0.40                                   | 1.51                    | 8.22                      | 2.07     | 2.41      |       |
| -10 (+14)                        | 541                        | 136               | 158      | 58                          | 0.44                                   | 1.89                    | 9.28                      | 2.34     | 2.72      |       |

| TEST CONDITIONS:<br>@220V1300RPM |                            | CECOMAF<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)                        | 119                        | 30                | 35       | 29                          | 0.23                                   | 0.45                    | 4.02                      | 1.01     | 1.18      |       |
| -30 (-22)                        | 164                        | 41                | 48       | 36                          | 0.27                                   | 0.62                    | 4.62                      | 1.17     | 1.36      |       |
| -25 (-13)                        | 219                        | 55                | 64       | 42                          | 0.32                                   | 0.84                    | 5.19                      | 1.31     | 1.52      |       |
| -20 (- 4)                        | 287                        | 72                | 84       | 50                          | 0.37                                   | 1.10                    | 5.77                      | 1.45     | 1.69      |       |
| -15 (+ 5)                        | 369                        | 93                | 108      | 58                          | 0.43                                   | 1.41                    | 6.40                      | 1.61     | 1.88      |       |
| -10 (+14)                        | 466                        | 117               | 137      | 65                          | 0.48                                   | 1.79                    | 7.13                      | 1.80     | 2.09      |       |

| TEST CONDITIONS:<br>@220V1600RPM |                            | CECOMAF<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)                        | 210                        | 53                | 62       | 34                          | 0.27                                  | 0.67                    | 6.24                      | 1.57     | 1.83      |       |
| -30 (-22)                        | 283                        | 71                | 83       | 40                          | 0.31                                  | 0.91                    | 7.09                      | 1.79     | 2.08      |       |
| -25 (-13)                        | 372                        | 94                | 109      | 46                          | 0.36                                  | 1.20                    | 8.04                      | 2.03     | 2.36      |       |
| -20 (- 4)                        | 480                        | 121               | 141      | 53                          | 0.40                                  | 1.54                    | 9.13                      | 2.30     | 2.68      |       |
| -15 (+ 5)                        | 608                        | 153               | 178      | 59                          | 0.44                                  | 1.96                    | 10.40                     | 2.62     | 3.05      |       |
| -10 (+14)                        | 759                        | 191               | 222      | 64                          | 0.48                                  | 2.45                    | 11.87                     | 2.99     | 3.48      |       |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V1600RPM |       | CECOMAF<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) | 184                        | 46       | 54  | 35                                     | 0.29                          | 0.64                    | 5.20                      | 1.31      | 1.52  |
| -30                              | (-22) | 246                        | 62       | 72  | 42                                     | 0.33                          | 0.86                    | 5.84                      | 1.47      | 1.71  |
| -25                              | (-13) | 324                        | 82       | 95  | 49                                     | 0.38                          | 1.13                    | 6.53                      | 1.65      | 1.91  |
| -20                              | (- 4) | 419                        | 106      | 123 | 57                                     | 0.43                          | 1.46                    | 7.31                      | 1.84      | 2.14  |
| -15                              | (+ 5) | 534                        | 135      | 157 | 65                                     | 0.48                          | 1.87                    | 8.21                      | 2.07      | 2.41  |
| -10                              | (+14) | 670                        | 169      | 196 | 72                                     | 0.53                          | 2.34                    | 9.27                      | 2.34      | 2.72  |

| TEST CONDITIONS:<br>@220V1600RPM |       | CECOMAF<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) | 152                        | 38       | 45  | 36                                     | 0.29                          | 0.58                    | 4.16                      | 1.05      | 1.22  |
| -30                              | (-22) | 205                        | 52       | 60  | 44                                     | 0.34                          | 0.78                    | 4.72                      | 1.19      | 1.38  |
| -25                              | (-13) | 273                        | 69       | 80  | 52                                     | 0.39                          | 1.04                    | 5.28                      | 1.33      | 1.55  |
| -20                              | (- 4) | 358                        | 90       | 105 | 61                                     | 0.46                          | 1.37                    | 5.87                      | 1.48      | 1.72  |
| -15                              | (+ 5) | 461                        | 116      | 135 | 71                                     | 0.52                          | 1.76                    | 6.53                      | 1.64      | 1.91  |
| -10                              | (+14) | 583                        | 147      | 171 | 80                                     | 0.59                          | 2.24                    | 7.28                      | 1.84      | 2.13  |

| TEST CONDITIONS:<br>@220V2000RPM |       | CECOMAF<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) | 266                        | 67       | 78  | 43                                    | 0.33                          | 0.85                    | 6.12                      | 1.54      | 1.79  |
| -30                              | (-22) | 354                        | 89       | 104 | 51                                    | 0.38                          | 1.14                    | 6.97                      | 1.76      | 2.04  |
| -25                              | (-13) | 465                        | 117      | 136 | 59                                    | 0.44                          | 1.49                    | 7.90                      | 1.99      | 2.31  |
| -20                              | (- 4) | 600                        | 151      | 176 | 67                                    | 0.50                          | 1.93                    | 8.93                      | 2.25      | 2.62  |
| -15                              | (+ 5) | 760                        | 192      | 223 | 75                                    | 0.55                          | 2.45                    | 10.11                     | 2.55      | 2.96  |
| -10                              | (+14) | 947                        | 239      | 277 | 83                                    | 0.60                          | 3.05                    | 11.47                     | 2.89      | 3.36  |

| TEST CONDITIONS:<br>@220V2000RPM |       | CECOMAF<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) | 229                        | 58       | 67  | 45                                     | 0.34                          | 0.80                    | 5.13                      | 1.29      | 1.50  |
| -30                              | (-22) | 308                        | 78       | 90  | 53                                     | 0.40                          | 1.07                    | 5.80                      | 1.46      | 1.70  |
| -25                              | (-13) | 407                        | 103      | 119 | 63                                     | 0.47                          | 1.42                    | 6.51                      | 1.64      | 1.91  |
| -20                              | (- 4) | 529                        | 133      | 155 | 72                                     | 0.54                          | 1.84                    | 7.28                      | 1.83      | 2.13  |
| -15                              | (+ 5) | 673                        | 170      | 197 | 83                                     | 0.61                          | 2.35                    | 8.14                      | 2.05      | 2.39  |
| -10                              | (+14) | 842                        | 212      | 247 | 92                                     | 0.67                          | 2.95                    | 9.13                      | 2.30      | 2.68  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V2000RPM |                            | CECOMAF<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)                        | 189                        | 48                | 55       | 45                          | 0.35                                   | 0.72                    | 4.13                      | 1.04     | 1.21      |       |
| -30 (-22)                        | 259                        | 65                | 76       | 55                          | 0.41                                   | 0.99                    | 4.73                      | 1.19     | 1.39      |       |
| -25 (-13)                        | 348                        | 88                | 102      | 66                          | 0.49                                   | 1.33                    | 5.31                      | 1.34     | 1.56      |       |
| -20 (- 4)                        | 458                        | 115               | 134      | 77                          | 0.57                                   | 1.75                    | 5.92                      | 1.49     | 1.73      |       |
| -15 (+ 5)                        | 589                        | 148               | 173      | 90                          | 0.65                                   | 2.25                    | 6.57                      | 1.65     | 1.92      |       |
| -10 (+14)                        | 742                        | 187               | 217      | 101                         | 0.73                                   | 2.85                    | 7.30                      | 1.84     | 2.14      |       |

| TEST CONDITIONS:<br>@220V3000RPM |                            | CECOMAF<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)                        | 405                        | 102               | 119      | 69                          | 0.52                                  | 1.30                    | 5.88                      | 1.48     | 1.72      |       |
| -30 (-22)                        | 538                        | 136               | 158      | 80                          | 0.59                                  | 1.73                    | 6.69                      | 1.69     | 1.96      |       |
| -25 (-13)                        | 704                        | 177               | 206      | 93                          | 0.68                                  | 2.26                    | 7.54                      | 1.90     | 2.21      |       |
| -20 (- 4)                        | 904                        | 228               | 265      | 107                         | 0.78                                  | 2.91                    | 8.42                      | 2.12     | 2.47      |       |
| -15 (+ 5)                        | 1142                       | 288               | 335      | 122                         | 0.87                                  | 3.67                    | 9.36                      | 2.36     | 2.74      |       |
| -10 (+14)                        | 1419                       | 357               | 416      | 137                         | 0.97                                  | 4.58                    | 10.36                     | 2.61     | 3.04      |       |

| TEST CONDITIONS:<br>@220V3000RPM |                            | CECOMAF<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)                        | 342                        | 86                | 100      | 70                          | 0.52                                   | 1.19                    | 4.87                      | 1.23     | 1.43      |       |
| -30 (-22)                        | 464                        | 117               | 136      | 84                          | 0.61                                   | 1.61                    | 5.54                      | 1.40     | 1.62      |       |
| -25 (-13)                        | 615                        | 155               | 180      | 99                          | 0.71                                   | 2.14                    | 6.23                      | 1.57     | 1.83      |       |
| -20 (- 4)                        | 796                        | 201               | 233      | 115                         | 0.82                                   | 2.78                    | 6.95                      | 1.75     | 2.04      |       |
| -15 (+ 5)                        | 1010                       | 254               | 296      | 131                         | 0.94                                   | 3.53                    | 7.71                      | 1.94     | 2.26      |       |
| -10 (+14)                        | 1259                       | 317               | 369      | 148                         | 1.05                                   | 4.41                    | 8.51                      | 2.14     | 2.49      |       |

| TEST CONDITIONS:<br>@220V3000RPM |                            | CECOMAF<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)                        | 280                        | 70                | 82       | 69                          | 0.52                                   | 1.06                    | 4.03                      | 1.01     | 1.18      |       |
| -30 (-22)                        | 392                        | 99                | 115      | 85                          | 0.62                                   | 1.49                    | 4.59                      | 1.16     | 1.34      |       |
| -25 (-13)                        | 528                        | 133               | 155      | 102                         | 0.74                                   | 2.01                    | 5.16                      | 1.30     | 1.51      |       |
| -20 (- 4)                        | 690                        | 174               | 202      | 120                         | 0.86                                   | 2.63                    | 5.74                      | 1.45     | 1.68      |       |
| -15 (+ 5)                        | 880                        | 222               | 258      | 139                         | 0.99                                   | 3.37                    | 6.34                      | 1.60     | 1.86      |       |
| -10 (+14)                        | 1101                       | 278               | 323      | 158                         | 1.12                                   | 4.23                    | 6.98                      | 1.76     | 2.04      |       |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V4500RPM |                            | CECOMAF<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)                        | 556                        | 140               | 163      | 104                         | 0.74                                  | 1.78                    | 5.33                      | 1.34     | 1.56      |       |
| -30 (-22)                        | 722                        | 182               | 212      | 120                         | 0.81                                  | 2.33                    | 6.01                      | 1.51     | 1.76      |       |
| -25 (-13)                        | 913                        | 230               | 268      | 136                         | 0.91                                  | 2.94                    | 6.74                      | 1.70     | 1.98      |       |
| -20 (- 4)                        | 1155                       | 291               | 339      | 153                         | 1.02                                  | 3.71                    | 7.56                      | 1.91     | 2.22      |       |
| -15 (+ 5)                        | 1477                       | 372               | 433      | 173                         | 1.11                                  | 4.74                    | 8.51                      | 2.14     | 2.49      |       |
| -10 (+14)                        | 1905                       | 480               | 558      | 197                         | 1.18                                  | 6.13                    | 9.62                      | 2.42     | 2.82      |       |

| TEST CONDITIONS:<br>@220V4500RPM |                            | CECOMAF<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)                        | 484                        | 122               | 142      | 107                         | 0.77                                   | 1.68                    | 4.53                      | 1.14     | 1.33      |       |
| -30 (-22)                        | 637                        | 160               | 187      | 124                         | 0.85                                   | 2.22                    | 5.11                      | 1.29     | 1.50      |       |
| -25 (-13)                        | 810                        | 204               | 237      | 142                         | 0.96                                   | 2.82                    | 5.71                      | 1.44     | 1.67      |       |
| -20 (- 4)                        | 1032                       | 260               | 302      | 162                         | 1.07                                   | 3.59                    | 6.37                      | 1.61     | 1.87      |       |
| -15 (+ 5)                        | 1328                       | 335               | 389      | 185                         | 1.17                                   | 4.64                    | 7.15                      | 1.80     | 2.09      |       |
| -10 (+14)                        | 1728                       | 436               | 506      | 213                         | 1.23                                   | 6.05                    | 8.07                      | 2.03     | 2.37      |       |

| TEST CONDITIONS:<br>@220V4500RPM |                            | CECOMAF<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)                        | 423                        | 107               | 124      | 110                         | 0.78                                   | 1.61                    | 3.83                      | 0.97     | 1.12      |       |
| -30 (-22)                        | 560                        | 141               | 164      | 129                         | 0.88                                   | 2.12                    | 4.31                      | 1.09     | 1.26      |       |
| -25 (-13)                        | 714                        | 180               | 209      | 149                         | 1.00                                   | 2.72                    | 4.80                      | 1.21     | 1.41      |       |
| -20 (- 4)                        | 912                        | 230               | 267      | 172                         | 1.11                                   | 3.49                    | 5.33                      | 1.34     | 1.56      |       |
| -15 (+ 5)                        | 1181                       | 298               | 346      | 199                         | 1.21                                   | 4.53                    | 5.95                      | 1.50     | 1.74      |       |
| -10 (+14)                        | 1550                       | 391               | 454      | 231                         | 1.26                                   | 5.96                    | 6.71                      | 1.69     | 1.97      |       |

### F - EXTERNAL CHARACTERISTICS

|                         |                              |      |                          |
|-------------------------|------------------------------|------|--------------------------|
| 1 Base plate            | European Standard VES        |      |                          |
| 2 Tray holder           | Yes                          |      |                          |
| 3 Connectors            |                              |      |                          |
| 3.1 SUCTION             | 6.1 +0.10/+0.00              | [mm] | (0.240" +0.004"/+0.000") |
| 3.1.1 Material          | Copper                       |      |                          |
| 3.1.2 Shape             | Slanted 45° up + 15° to Back |      |                          |
| 3.2 DISCHARGE           | 5.1 +0.10/+0.00              | [mm] | (0.201" +0.004"/+0.000") |
| 3.2.1 Material          | Copper                       |      |                          |
| 3.2.2 Shape             | Slanted 47° up + 24° to Back |      |                          |
| 3.3 PROCESS             | 6 +0.08/-0.08                | [mm] | (0.236" +0.003"/-0.003") |
| 3.3.1 Material          | Copper(OD)                   |      |                          |
| 3.3.2 Shape             | Slanted 47° up + 59° to Back |      |                          |
| 3.4 Oil cooler (Copper) | No                           | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs                 |      |                          |