

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | VES A11C        |
| Nominal Voltage/Frequency | 230 V 40-150 Hz |
| Engineering Number        | 513907136       |

### 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      | 1/5            | [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            | 190            | [ml] (6.42 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 |                                  |
| 4 Weight (with oil charge)    | 6.45           | [kg] (14.22 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                          | VCC3 1156 XXXXX/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                   | 13.40                             | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 13.40                             | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (46/133 Hz)    | 2.10/2.10                         | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (46/133 Hz) | 2.10/2.10                         | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (46/133 Hz)  | -                                 | [A] - Measured according to UL 984 |
| 11 Approval boards certification             | CCC - VDE                         |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                                  |          |     |                                |                                  |  |                           |                               |       |
|----------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|-------------------------------|-------|
| TEST CONDITIONS:<br>@220V1300RPM |          |     | CECOMAFLBP<br>Static           |                                  | Evaporating temperature<br>(Condensing temperature |                           | -25°C (-13°F)<br>55°C (131°F) |       |
| Cooling capacity<br>+/- 5%       |          |     | Power<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5% | Gas flow<br>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  | 43                             | 0.32                             | 0.84   | 5.08                      | 1.28                          | 1.49  |

|                                  |          |     |                                |                                  |  |                           |                               |       |
|----------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|-------------------------------|-------|
| TEST CONDITIONS:<br>@220V1600RPM |          |     | CECOMAFLBP<br>Static           |                                  | Evaporating temperature<br>(Condensing temperature |                           | -25°C (-13°F)<br>55°C (131°F) |       |
| Cooling capacity<br>+/- 5%       |          |     | Power<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5% | Gas flow<br>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  | 53                             | 0.39                             | 1.04   | 5.15                      | 1.30                          | 1.51  |

|                                  |          |     |                                |                                  |  |                           |                               |       |
|----------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|-------------------------------|-------|
| TEST CONDITIONS:<br>@220V2000RPM |          |     | CECOMAFLBP<br>Static           |                                  | Evaporating temperature<br>(Condensing temperature |                           | -25°C (-13°F)<br>55°C (131°F) |       |
| Cooling capacity<br>+/- 5%       |          |     | Power<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5% | Gas flow<br>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 | 67                             | 0.49                             | 1.33   | 5.18                      | 1.31                          | 1.52  |

|                                  |          |     |                                |                                  |  |                           |                               |       |
|----------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|-------------------------------|-------|
| TEST CONDITIONS:<br>@220V3000RPM |          |     | CECOMAFLBP<br>Static           |                                  | Evaporating temperature<br>(Condensing temperature |                           | -25°C (-13°F)<br>55°C (131°F) |       |
| Cooling capacity<br>+/- 5%       |          |     | Power<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5% | Gas flow<br>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 | 104                            | 0.74                             | 2.01   | 5.06                      | 1.28                          | 1.48  |

|                                  |          |     |                                |                                  |  |                           |                               |       |
|----------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|-------------------------------|-------|
| TEST CONDITIONS:<br>@220V4500RPM |          |     | CECOMAFLBP<br>Static           |                                  | Evaporating temperature<br>(Condensing temperature |                           | -25°C (-13°F)<br>55°C (131°F) |       |
| Cooling capacity<br>+/- 5%       |          |     | Power<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5% | Gas flow<br>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 | 151                            | 1.00                             | 2.72   | 4.72                      | 1.19                          | 1.38  |

### 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] |
| -35                              | (-31)                      | 174               | 44      | 51                          | 28                                    | 0.22                    | 0.56                      | 6.15   | 1.55     | 1.80      |
| -30                              | (-22)                      | 231               | 58      | 68                          | 33                                    | 0.26                    | 0.74                      | 6.98   | 1.76     | 2.05      |
| -25                              | (-13)                      | 302               | 76      | 88                          | 38                                    | 0.29                    | 0.97                      | 7.88   | 1.99     | 2.31      |
| -20                              | (- 4)                      | 387               | 97      | 113                         | 44                                    | 0.33                    | 1.24                      | 8.90   | 2.24     | 2.61      |
| -15                              | (+ 5)                      | 488               | 123     | 143                         | 49                                    | 0.36                    | 1.57                      | 10.09  | 2.54     | 2.96      |
| -10                              | (+14)                      | 607               | 153     | 178                         | 53                                    | 0.39                    | 1.96                      | 11.49  | 2.89     | 3.37      |

| 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] |
| -35                              | (-31)                      | 147               | 37      | 43                          | 29                                     | 0.23                    | 0.51                      | 5.04   | 1.27     | 1.48      |
| -30                              | (-22)                      | 199               | 50      | 58                          | 35                                     | 0.27                    | 0.69                      | 5.71   | 1.44     | 1.67      |
| -25                              | (-13)                      | 262               | 66      | 77                          | 41                                     | 0.32                    | 0.91                      | 6.38   | 1.61     | 1.87      |
| -20                              | (- 4)                      | 340               | 86      | 100                         | 48                                     | 0.36                    | 1.18                      | 7.12   | 1.79     | 2.08      |
| -15                              | (+ 5)                      | 432               | 109     | 127                         | 54                                     | 0.40                    | 1.51                      | 7.95   | 2.00     | 2.33      |
| -10                              | (+14)                      | 541               | 136     | 158                         | 60                                     | 0.44                    | 1.89                      | 8.94   | 2.25     | 2.62      |

| 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] |
| -35                              | (-31)                      | 119               | 30      | 35                          | 30                                     | 0.23                    | 0.45                      | 3.94   | 0.99     | 1.16      |
| -30                              | (-22)                      | 164               | 41      | 48                          | 36                                     | 0.27                    | 0.62                      | 4.54   | 1.14     | 1.33      |
| -25                              | (-13)                      | 219               | 55      | 64                          | 43                                     | 0.32                    | 0.84                      | 5.08   | 1.28     | 1.49      |
| -20                              | (- 4)                      | 287               | 72      | 84                          | 51                                     | 0.37                    | 1.10                      | 5.61   | 1.41     | 1.64      |
| -15                              | (+ 5)                      | 369               | 93      | 108                         | 60                                     | 0.43                    | 1.41                      | 6.18   | 1.56     | 1.81      |
| -10                              | (+14)                      | 466               | 117     | 137                         | 68                                     | 0.48                    | 1.79                      | 6.84   | 1.72     | 2.01      |

| 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] |
| -35                              | (-31)                      | 210               | 53      | 62                          | 35                                    | 0.27                    | 0.67                      | 6.10   | 1.54     | 1.79      |
| -30                              | (-22)                      | 283               | 71      | 83                          | 41                                    | 0.31                    | 0.91                      | 6.92   | 1.74     | 2.03      |
| -25                              | (-13)                      | 372               | 94      | 109                         | 47                                    | 0.36                    | 1.20                      | 7.82   | 1.97     | 2.29      |
| -20                              | (- 4)                      | 480               | 121     | 141                         | 54                                    | 0.40                    | 1.54                      | 8.86   | 2.23     | 2.60      |
| -15                              | (+ 5)                      | 608               | 153     | 178                         | 61                                    | 0.44                    | 1.96                      | 10.05  | 2.53     | 2.94      |
| -10                              | (+14)                      | 759               | 191     | 222                         | 67                                    | 0.48                    | 2.45                      | 11.44  | 2.88     | 3.35      |

### 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  | 36                                     | 0.29                          | 0.64                    | 5.07                      | 1.28      | 1.49  |
| -30                              | (-22) | 246                        | 62       | 72  | 43                                     | 0.33                          | 0.86                    | 5.70                      | 1.44      | 1.67  |
| -25                              | (-13) | 324                        | 82       | 95  | 51                                     | 0.38                          | 1.13                    | 6.35                      | 1.60      | 1.86  |
| -20                              | (- 4) | 419                        | 106      | 123 | 59                                     | 0.43                          | 1.46                    | 7.08                      | 1.78      | 2.07  |
| -15                              | (+ 5) | 534                        | 135      | 157 | 67                                     | 0.48                          | 1.87                    | 7.91                      | 1.99      | 2.32  |
| -10                              | (+14) | 670                        | 169      | 196 | 75                                     | 0.53                          | 2.34                    | 8.89                      | 2.24      | 2.60  |

| 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  | 37                                     | 0.29                          | 0.58                    | 4.07                      | 1.03      | 1.19  |
| -30                              | (-22) | 205                        | 52       | 60  | 45                                     | 0.34                          | 0.78                    | 4.62                      | 1.16      | 1.35  |
| -25                              | (-13) | 273                        | 69       | 80  | 53                                     | 0.39                          | 1.04                    | 5.15                      | 1.30      | 1.51  |
| -20                              | (- 4) | 358                        | 90       | 105 | 63                                     | 0.46                          | 1.37                    | 5.69                      | 1.43      | 1.67  |
| -15                              | (+ 5) | 461                        | 116      | 135 | 73                                     | 0.52                          | 1.76                    | 6.28                      | 1.58      | 1.84  |
| -10                              | (+14) | 583                        | 147      | 171 | 84                                     | 0.59                          | 2.24                    | 6.97                      | 1.76      | 2.04  |

| 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  | 45                                    | 0.33                          | 0.85                    | 5.97                      | 1.50      | 1.75  |
| -30                              | (-22) | 354                        | 89       | 104 | 52                                    | 0.38                          | 1.14                    | 6.79                      | 1.71      | 1.99  |
| -25                              | (-13) | 465                        | 117      | 136 | 60                                    | 0.44                          | 1.49                    | 7.69                      | 1.94      | 2.25  |
| -20                              | (- 4) | 600                        | 151      | 176 | 69                                    | 0.50                          | 1.93                    | 8.69                      | 2.19      | 2.55  |
| -15                              | (+ 5) | 760                        | 192      | 223 | 78                                    | 0.55                          | 2.45                    | 9.82                      | 2.48      | 2.88  |
| -10                              | (+14) | 947                        | 239      | 277 | 85                                    | 0.60                          | 3.05                    | 11.13                     | 2.80      | 3.26  |

| 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  | 46                                     | 0.34                          | 0.80                    | 4.99                      | 1.26      | 1.46  |
| -30                              | (-22) | 308                        | 78       | 90  | 55                                     | 0.40                          | 1.07                    | 5.65                      | 1.42      | 1.66  |
| -25                              | (-13) | 407                        | 103      | 119 | 64                                     | 0.47                          | 1.42                    | 6.34                      | 1.60      | 1.86  |
| -20                              | (- 4) | 529                        | 133      | 155 | 75                                     | 0.54                          | 1.84                    | 7.07                      | 1.78      | 2.07  |
| -15                              | (+ 5) | 673                        | 170      | 197 | 85                                     | 0.61                          | 2.35                    | 7.90                      | 1.99      | 2.32  |
| -10                              | (+14) | 842                        | 212      | 247 | 95                                     | 0.67                          | 2.95                    | 8.85                      | 2.23      | 2.59  |

### 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       | 47                          | 0.35                                   | 0.72                    | 4.03                      | 1.02     | 1.18      |       |
| -30 (-22)                        | 259                        | 65                | 76       | 56                          | 0.41                                   | 0.99                    | 4.62                      | 1.16     | 1.35      |       |
| -25 (-13)                        | 348                        | 88                | 102      | 67                          | 0.49                                   | 1.33                    | 5.18                      | 1.31     | 1.52      |       |
| -20 (- 4)                        | 458                        | 115               | 134      | 80                          | 0.57                                   | 1.75                    | 5.76                      | 1.45     | 1.69      |       |
| -15 (+ 5)                        | 589                        | 148               | 173      | 92                          | 0.65                                   | 2.25                    | 6.38                      | 1.61     | 1.87      |       |
| -10 (+14)                        | 742                        | 187               | 217      | 105                         | 0.73                                   | 2.85                    | 7.07                      | 1.78     | 2.07      |       |

| 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      | 70                          | 0.52                                  | 1.30                    | 5.80                      | 1.46     | 1.70      |       |
| -30 (-22)                        | 538                        | 136               | 158      | 82                          | 0.59                                  | 1.73                    | 6.60                      | 1.66     | 1.93      |       |
| -25 (-13)                        | 704                        | 177               | 206      | 95                          | 0.68                                  | 2.26                    | 7.41                      | 1.87     | 2.17      |       |
| -20 (- 4)                        | 904                        | 228               | 265      | 109                         | 0.78                                  | 2.91                    | 8.26                      | 2.08     | 2.42      |       |
| -15 (+ 5)                        | 1142                       | 288               | 335      | 125                         | 0.87                                  | 3.67                    | 9.15                      | 2.31     | 2.68      |       |
| -10 (+14)                        | 1419                       | 357               | 416      | 140                         | 0.97                                  | 4.58                    | 10.10                     | 2.54     | 2.96      |       |

| 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      | 71                          | 0.52                                   | 1.19                    | 4.80                      | 1.21     | 1.41      |       |
| -30 (-22)                        | 464                        | 117               | 136      | 85                          | 0.61                                   | 1.61                    | 5.46                      | 1.38     | 1.60      |       |
| -25 (-13)                        | 615                        | 155               | 180      | 100                         | 0.71                                   | 2.14                    | 6.12                      | 1.54     | 1.79      |       |
| -20 (- 4)                        | 796                        | 201               | 233      | 117                         | 0.82                                   | 2.78                    | 6.80                      | 1.71     | 1.99      |       |
| -15 (+ 5)                        | 1010                       | 254               | 296      | 134                         | 0.94                                   | 3.53                    | 7.52                      | 1.89     | 2.20      |       |
| -10 (+14)                        | 1259                       | 317               | 369      | 152                         | 1.05                                   | 4.41                    | 8.27                      | 2.09     | 2.42      |       |

| 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       | 70                          | 0.52                                   | 1.06                    | 3.98                      | 1.00     | 1.16      |       |
| -30 (-22)                        | 392                        | 99                | 115      | 87                          | 0.62                                   | 1.49                    | 4.52                      | 1.14     | 1.32      |       |
| -25 (-13)                        | 528                        | 133               | 155      | 104                         | 0.74                                   | 2.01                    | 5.06                      | 1.28     | 1.48      |       |
| -20 (- 4)                        | 690                        | 174               | 202      | 123                         | 0.86                                   | 2.63                    | 5.61                      | 1.41     | 1.64      |       |
| -15 (+ 5)                        | 880                        | 222               | 258      | 143                         | 0.99                                   | 3.37                    | 6.18                      | 1.56     | 1.81      |       |
| -10 (+14)                        | 1101                       | 278               | 323      | 163                         | 1.12                                   | 4.23                    | 6.78                      | 1.71     | 1.99      |       |

### 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      | 105                         | 0.74                                  | 1.78                    | 5.27                      | 1.33     | 1.54      |       |
| -30 (-22)                        | 722                        | 182               | 212      | 121                         | 0.81                                  | 2.33                    | 5.94                      | 1.50     | 1.74      |       |
| -25 (-13)                        | 913                        | 230               | 268      | 137                         | 0.91                                  | 2.94                    | 6.65                      | 1.68     | 1.95      |       |
| -20 (- 4)                        | 1155                       | 291               | 339      | 156                         | 1.02                                  | 3.71                    | 7.43                      | 1.87     | 2.18      |       |
| -15 (+ 5)                        | 1477                       | 372               | 433      | 177                         | 1.11                                  | 4.74                    | 8.33                      | 2.10     | 2.44      |       |
| -10 (+14)                        | 1905                       | 480               | 558      | 202                         | 1.18                                  | 6.13                    | 9.38                      | 2.36     | 2.75      |       |

| 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      | 108                         | 0.77                                   | 1.68                    | 4.49                      | 1.13     | 1.32      |       |
| -30 (-22)                        | 637                        | 160               | 187      | 126                         | 0.85                                   | 2.22                    | 5.05                      | 1.27     | 1.48      |       |
| -25 (-13)                        | 810                        | 204               | 237      | 144                         | 0.96                                   | 2.82                    | 5.62                      | 1.42     | 1.65      |       |
| -20 (- 4)                        | 1032                       | 260               | 302      | 165                         | 1.07                                   | 3.59                    | 6.26                      | 1.58     | 1.83      |       |
| -15 (+ 5)                        | 1328                       | 335               | 389      | 190                         | 1.17                                   | 4.64                    | 6.98                      | 1.76     | 2.05      |       |
| -10 (+14)                        | 1728                       | 436               | 506      | 219                         | 1.23                                   | 6.05                    | 7.85                      | 1.98     | 2.30      |       |

| 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      | 111                         | 0.78                                   | 1.61                    | 3.79                      | 0.96     | 1.11      |       |
| -30 (-22)                        | 560                        | 141               | 164      | 130                         | 0.88                                   | 2.12                    | 4.25                      | 1.07     | 1.25      |       |
| -25 (-13)                        | 714                        | 180               | 209      | 151                         | 1.00                                   | 2.72                    | 4.72                      | 1.19     | 1.38      |       |
| -20 (- 4)                        | 912                        | 230               | 267      | 176                         | 1.11                                   | 3.49                    | 5.22                      | 1.32     | 1.53      |       |
| -15 (+ 5)                        | 1181                       | 298               | 346      | 204                         | 1.21                                   | 4.53                    | 5.81                      | 1.46     | 1.70      |       |
| -10 (+14)                        | 1550                       | 391               | 454      | 238                         | 1.26                                   | 5.96                    | 6.50                      | 1.64     | 1.91      |       |

### F - EXTERNAL CHARACTERISTICS

|                         |                              |      |                          |
|-------------------------|------------------------------|------|--------------------------|
| 1 Base plate            | Universal VES                |      |                          |
| 2 Tray holder           | No                           |      |                          |
| 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 5° out + 63° up      |      |                          |
| 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 47° up + 59° to Back |      |                          |
| 3.4 Oil cooler (Copper) | No                           | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs                 |      |                          |