

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | VES D7C         |
| Nominal Voltage/Frequency | 230 V 40-150 Hz |
| Engineering Number        | 513907034       |

### 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                | 7.23           | [cm <sup>3</sup> ] (0.441 cu.in) |
| 2.1 Bore [mm]                 | 24.000         |                                  |
| 2.2 Stroke [mm]               | 16.000         |                                  |
| 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)    | 6.78           | [kg] (14.95 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>@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] |
| 122                              | 31       | 36  | 25                             | 0.20                             | 0.47   | 4.84                      | 1.22                          | 1.42  |

|                                  |          |     |                                |                                  |  |                           |                               |       |
|----------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|-------------------------------|-------|
| 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] |
| 158                              | 40       | 46  | 31                             | 0.24                             | 0.60   | 5.13                      | 1.29                          | 1.50  |

|                                  |          |     |                                |                                  |  |                           |                               |       |
|----------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|-------------------------------|-------|
| 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] |
| 198                              | 50       | 58  | 38                             | 0.28                             | 0.75   | 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] |
| 302                              | 76       | 88  | 60                             | 0.44                             | 1.15   | 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] |
| 471                              | 119      | 138 | 94                             | 0.68                             | 1.80   | 5.00                      | 1.26                          | 1.47  |

### 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]  |
| -35                              | (-31)                      | 104               | 26      | 30                          | 17                                     | 0.12                    | 0.33                      | 6.08  | 1.53 | 1.78 |
| -30                              | (-22)                      | 139               | 35      | 41                          | 20                                     | 0.15                    | 0.45                      | 6.97  | 1.76 | 2.04 |
| -25                              | (-13)                      | 182               | 46      | 53                          | 23                                     | 0.18                    | 0.58                      | 7.92  | 2.00 | 2.32 |
| -20                              | (- 4)                      | 235               | 59      | 69                          | 26                                     | 0.20                    | 0.75                      | 9.03  | 2.27 | 2.64 |
| -15                              | (+ 5)                      | 299               | 75      | 88                          | 29                                     | 0.22                    | 0.96                      | 10.35 | 2.61 | 3.03 |
| -10                              | (+14)                      | 377               | 95      | 111                         | 32                                     | 0.24                    | 1.22                      | 11.98 | 3.02 | 3.51 |

| 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]  |
| -35                              | (-31)                      | 82                | 21      | 24                          | 17                                      | 0.14                    | 0.28                      | 4.69 | 1.18 | 1.37 |
| -30                              | (-22)                      | 114               | 29      | 33                          | 21                                      | 0.16                    | 0.39                      | 5.49 | 1.38 | 1.61 |
| -25                              | (-13)                      | 153               | 38      | 45                          | 24                                      | 0.19                    | 0.53                      | 6.26 | 1.58 | 1.83 |
| -20                              | (- 4)                      | 200               | 50      | 59                          | 28                                      | 0.22                    | 0.70                      | 7.09 | 1.79 | 2.08 |
| -15                              | (+ 5)                      | 258               | 65      | 75                          | 32                                      | 0.24                    | 0.90                      | 8.05 | 2.03 | 2.36 |
| -10                              | (+14)                      | 327               | 82      | 96                          | 35                                      | 0.27                    | 1.15                      | 9.22 | 2.32 | 2.70 |

| 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]  |
| -35                              | (-31)                      | 55                | 14      | 16                          | 17                                      | 0.14                    | 0.21                      | 3.23 | 0.81 | 0.95 |
| -30                              | (-22)                      | 86                | 22      | 25                          | 21                                      | 0.17                    | 0.32                      | 4.09 | 1.03 | 1.20 |
| -25                              | (-13)                      | 122               | 31      | 36                          | 25                                      | 0.20                    | 0.46                      | 4.84 | 1.22 | 1.42 |
| -20                              | (- 4)                      | 165               | 42      | 48                          | 30                                      | 0.23                    | 0.63                      | 5.55 | 1.40 | 1.63 |
| -15                              | (+ 5)                      | 217               | 55      | 64                          | 34                                      | 0.26                    | 0.83                      | 6.30 | 1.59 | 1.85 |
| -10                              | (+14)                      | 281               | 71      | 82                          | 39                                      | 0.29                    | 1.08                      | 7.17 | 1.81 | 2.10 |

| 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]  |
| -35                              | (-31)                      | 124               | 31      | 36                          | 21                                     | 0.16                    | 0.40                      | 5.84  | 1.47 | 1.71 |
| -30                              | (-22)                      | 171               | 43      | 50                          | 25                                     | 0.19                    | 0.55                      | 6.87  | 1.73 | 2.01 |
| -25                              | (-13)                      | 227               | 57      | 66                          | 29                                     | 0.21                    | 0.73                      | 7.94  | 2.00 | 2.33 |
| -20                              | (- 4)                      | 293               | 74      | 86                          | 32                                     | 0.24                    | 0.94                      | 9.12  | 2.30 | 2.67 |
| -15                              | (+ 5)                      | 374               | 94      | 109                         | 36                                     | 0.26                    | 1.20                      | 10.48 | 2.64 | 3.07 |
| -10                              | (+14)                      | 470               | 118     | 138                         | 39                                     | 0.29                    | 1.51                      | 12.10 | 3.05 | 3.54 |

### 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) | 99                         | 25       | 29  | 21                                     | 0.17                          | 0.35                    | 4.70                      | 1.18      | 1.38  |
| -30                              | (-22) | 143                        | 36       | 42  | 26                                     | 0.20                          | 0.50                    | 5.58                      | 1.41      | 1.64  |
| -25                              | (-13) | 193                        | 49       | 57  | 30                                     | 0.23                          | 0.67                    | 6.42                      | 1.62      | 1.88  |
| -20                              | (- 4) | 253                        | 64       | 74  | 35                                     | 0.26                          | 0.88                    | 7.29                      | 1.84      | 2.14  |
| -15                              | (+ 5) | 324                        | 82       | 95  | 39                                     | 0.30                          | 1.13                    | 8.25                      | 2.08      | 2.42  |
| -10                              | (+14) | 409                        | 103      | 120 | 43                                     | 0.33                          | 1.43                    | 9.38                      | 2.36      | 2.75  |

| 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) | 71                         | 18       | 21  | 20                                     | 0.15                          | 0.27                    | 3.48                      | 0.88      | 1.02  |
| -30                              | (-22) | 112                        | 28       | 33  | 25                                     | 0.19                          | 0.42                    | 4.37                      | 1.10      | 1.28  |
| -25                              | (-13) | 158                        | 40       | 46  | 31                                     | 0.24                          | 0.60                    | 5.13                      | 1.29      | 1.50  |
| -20                              | (- 4) | 211                        | 53       | 62  | 36                                     | 0.28                          | 0.81                    | 5.83                      | 1.47      | 1.71  |
| -15                              | (+ 5) | 274                        | 69       | 80  | 42                                     | 0.32                          | 1.05                    | 6.53                      | 1.65      | 1.91  |
| -10                              | (+14) | 349                        | 88       | 102 | 48                                     | 0.36                          | 1.34                    | 7.32                      | 1.84      | 2.15  |

| 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) | 155                        | 39       | 45  | 27                                    | 0.20                          | 0.49                    | 5.81                      | 1.46      | 1.70  |
| -30                              | (-22) | 211                        | 53       | 62  | 31                                    | 0.23                          | 0.68                    | 6.80                      | 1.71      | 1.99  |
| -25                              | (-13) | 281                        | 71       | 82  | 36                                    | 0.26                          | 0.90                    | 7.87                      | 1.98      | 2.31  |
| -20                              | (- 4) | 367                        | 92       | 107 | 41                                    | 0.30                          | 1.18                    | 9.07                      | 2.28      | 2.66  |
| -15                              | (+ 5) | 468                        | 118      | 137 | 45                                    | 0.33                          | 1.51                    | 10.43                     | 2.63      | 3.06  |
| -10                              | (+14) | 587                        | 148      | 172 | 49                                    | 0.36                          | 1.89                    | 12.00                     | 3.02      | 3.52  |

| 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) | 124                        | 31       | 36  | 27                                     | 0.21                          | 0.43                    | 4.67                      | 1.18      | 1.37  |
| -30                              | (-22) | 176                        | 44       | 51  | 32                                     | 0.24                          | 0.61                    | 5.51                      | 1.39      | 1.61  |
| -25                              | (-13) | 240                        | 60       | 70  | 38                                     | 0.28                          | 0.83                    | 6.36                      | 1.60      | 1.86  |
| -20                              | (- 4) | 318                        | 80       | 93  | 44                                     | 0.32                          | 1.11                    | 7.27                      | 1.83      | 2.13  |
| -15                              | (+ 5) | 411                        | 104      | 120 | 49                                     | 0.36                          | 1.44                    | 8.28                      | 2.09      | 2.43  |
| -10                              | (+14) | 520                        | 131      | 152 | 55                                     | 0.40                          | 1.82                    | 9.42                      | 2.37      | 2.76  |

### 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)                        | 95                         | 24                | 28       | 26                          | 0.21                                   | 0.36                    | 3.65                      | 0.92     | 1.07      |       |
| -30 (-22)                        | 141                        | 36                | 41       | 32                          | 0.24                                   | 0.54                    | 4.44                      | 1.12     | 1.30      |       |
| -25 (-13)                        | 198                        | 50                | 58       | 38                          | 0.28                                   | 0.76                    | 5.18                      | 1.31     | 1.52      |       |
| -20 (- 4)                        | 268                        | 68                | 79       | 45                          | 0.33                                   | 1.02                    | 5.91                      | 1.49     | 1.73      |       |
| -15 (+ 5)                        | 351                        | 88                | 103      | 53                          | 0.39                                   | 1.35                    | 6.67                      | 1.68     | 1.96      |       |
| -10 (+14)                        | 449                        | 113               | 132      | 60                          | 0.44                                   | 1.72                    | 7.50                      | 1.89     | 2.20      |       |

| 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)                        | 228                        | 57                | 67       | 41                          | 0.31                                  | 0.73                    | 5.59                      | 1.41     | 1.64      |       |
| -30 (-22)                        | 318                        | 80                | 93       | 49                          | 0.35                                  | 1.02                    | 6.53                      | 1.64     | 1.91      |       |
| -25 (-13)                        | 429                        | 108               | 126      | 57                          | 0.41                                  | 1.38                    | 7.55                      | 1.90     | 2.21      |       |
| -20 (- 4)                        | 561                        | 141               | 164      | 65                          | 0.47                                  | 1.80                    | 8.68                      | 2.19     | 2.54      |       |
| -15 (+ 5)                        | 718                        | 181               | 210      | 73                          | 0.52                                  | 2.31                    | 9.94                      | 2.50     | 2.91      |       |
| -10 (+14)                        | 901                        | 227               | 264      | 80                          | 0.58                                  | 2.91                    | 11.33                     | 2.86     | 3.32      |       |

| 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)                        | 190                        | 48                | 56       | 41                          | 0.32                                   | 0.66                    | 4.63                      | 1.17     | 1.36      |       |
| -30 (-22)                        | 268                        | 67                | 78       | 50                          | 0.37                                   | 0.93                    | 5.38                      | 1.36     | 1.58      |       |
| -25 (-13)                        | 365                        | 92                | 107      | 59                          | 0.43                                   | 1.27                    | 6.19                      | 1.56     | 1.81      |       |
| -20 (- 4)                        | 484                        | 122               | 142      | 68                          | 0.50                                   | 1.69                    | 7.07                      | 1.78     | 2.07      |       |
| -15 (+ 5)                        | 627                        | 158               | 184      | 78                          | 0.57                                   | 2.19                    | 8.04                      | 2.03     | 2.36      |       |
| -10 (+14)                        | 795                        | 200               | 233      | 87                          | 0.63                                   | 2.78                    | 9.13                      | 2.30     | 2.67      |       |

| 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)                        | 159                        | 40                | 46       | 42                          | 0.31                                   | 0.60                    | 3.80                      | 0.96     | 1.11      |       |
| -30 (-22)                        | 221                        | 56                | 65       | 50                          | 0.37                                   | 0.84                    | 4.42                      | 1.11     | 1.29      |       |
| -25 (-13)                        | 302                        | 76                | 89       | 60                          | 0.44                                   | 1.15                    | 5.06                      | 1.28     | 1.48      |       |
| -20 (- 4)                        | 406                        | 102               | 119      | 71                          | 0.52                                   | 1.55                    | 5.75                      | 1.45     | 1.69      |       |
| -15 (+ 5)                        | 532                        | 134               | 156      | 82                          | 0.60                                   | 2.04                    | 6.50                      | 1.64     | 1.91      |       |
| -10 (+14)                        | 684                        | 172               | 200      | 93                          | 0.68                                   | 2.63                    | 7.33                      | 1.85     | 2.15      |       |

### 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] |
| -35                              | (-31)                      | 364               | 92      | 107                         | 67                                    | 0.49                    | 1.16                      | 5.38   | 1.36     | 1.58      |
| -30                              | (-22)                      | 485               | 122     | 142                         | 78                                    | 0.56                    | 1.56                      | 6.24   | 1.57     | 1.83      |
| -25                              | (-13)                      | 619               | 156     | 181                         | 88                                    | 0.62                    | 1.99                      | 7.11   | 1.79     | 2.08      |
| -20                              | (- 4)                      | 780               | 196     | 228                         | 97                                    | 0.68                    | 2.50                      | 8.05   | 2.03     | 2.36      |
| -15                              | (+ 5)                      | 980               | 247     | 287                         | 107                                   | 0.74                    | 3.15                      | 9.12   | 2.30     | 2.67      |
| -10                              | (+14)                      | 1233              | 311     | 361                         | 118                                   | 0.81                    | 3.97                      | 10.36  | 2.61     | 3.04      |

| 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] |
| -35                              | (-31)                      | 298               | 75      | 87                          | 66                                     | 0.49                    | 1.04                      | 4.50   | 1.13     | 1.32      |
| -30                              | (-22)                      | 423               | 107     | 124                         | 80                                     | 0.58                    | 1.47                      | 5.25   | 1.32     | 1.54      |
| -25                              | (-13)                      | 555               | 140     | 163                         | 93                                     | 0.66                    | 1.93                      | 5.98   | 1.51     | 1.75      |
| -20                              | (- 4)                      | 706               | 178     | 207                         | 105                                    | 0.73                    | 2.46                      | 6.74   | 1.70     | 1.97      |
| -15                              | (+ 5)                      | 891               | 224     | 261                         | 118                                    | 0.80                    | 3.11                      | 7.57   | 1.91     | 2.22      |
| -10                              | (+14)                      | 1122              | 283     | 329                         | 131                                    | 0.87                    | 3.93                      | 8.53   | 2.15     | 2.50      |

| 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] |
| -35                              | (-31)                      | 225               | 57      | 66                          | 62                                     | 0.46                    | 0.86                      | 3.66   | 0.92     | 1.07      |
| -30                              | (-22)                      | 348               | 88      | 102                         | 78                                     | 0.58                    | 1.32                      | 4.37   | 1.10     | 1.28      |
| -25                              | (-13)                      | 471               | 119     | 138                         | 94                                     | 0.68                    | 1.79                      | 5.00   | 1.26     | 1.47      |
| -20                              | (- 4)                      | 608               | 153     | 178                         | 108                                    | 0.76                    | 2.32                      | 5.62   | 1.42     | 1.65      |
| -15                              | (+ 5)                      | 772               | 195     | 226                         | 124                                    | 0.85                    | 2.96                      | 6.26   | 1.58     | 1.84      |
| -10                              | (+14)                      | 976               | 246     | 286                         | 140                                    | 0.93                    | 3.75                      | 6.99   | 1.76     | 2.05      |

### 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           | 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 +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                 |      |                          |