

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | VES A9C         |
| Nominal Voltage/Frequency | 230 V 40-150 Hz |
| Engineering Number        | 513907354       |

### 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                | 9.04           | [cm <sup>3</sup> ] (0.552 cu.in) |
| 2.1 Bore [mm]                 | 24.000         |                                  |
| 2.2 Stroke [mm]               | 20.000         |                                  |
| 3 Lubricant charge            | 200            | [ml] (6.76 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 |                                  |
| 4 Weight (with oil charge)    | 6.08           | [kg] (13.40 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                   | 11.50                             | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 11.50                             | [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 consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%                             | EFFICIENCY RATE<br>+/- 7% |                               |       |
| [Btu/h]                          | [kcal/h] | [W] | [W]                         | [A]                           | [kg/h]  | [Btu/Wh]                  | [kcal/Wh]                     | [W/W] |
| 168                              | 42       | 49  | 36                          | 0.30                          | 0.64  | 4.71                      | 1.19                          | 1.38  |

|                                  |          |     |                             |                               |   |                           |                               |       |
|----------------------------------|----------|-----|-----------------------------|-------------------------------|---|---------------------------|-------------------------------|-------|
| 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 consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%                             | EFFICIENCY RATE<br>+/- 7% |                               |       |
| [Btu/h]                          | [kcal/h] | [W] | [W]                         | [A]                           | [kg/h]  | [Btu/Wh]                  | [kcal/Wh]                     | [W/W] |
| 209                              | 53       | 61  | 42                          | 0.35                          | 0.80  | 4.95                      | 1.25                          | 1.45  |

|                                  |          |     |                             |                               |   |                           |                               |       |
|----------------------------------|----------|-----|-----------------------------|-------------------------------|---|---------------------------|-------------------------------|-------|
| 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 consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%                             | EFFICIENCY RATE<br>+/- 7% |                               |       |
| [Btu/h]                          | [kcal/h] | [W] | [W]                         | [A]                           | [kg/h]  | [Btu/Wh]                  | [kcal/Wh]                     | [W/W] |
| 264                              | 67       | 77  | 53                          | 0.43                          | 1.01  | 5.02                      | 1.27                          | 1.47  |

|                                  |          |     |                             |                               |   |                           |                               |       |
|----------------------------------|----------|-----|-----------------------------|-------------------------------|---|---------------------------|-------------------------------|-------|
| 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 consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%                             | EFFICIENCY RATE<br>+/- 7% |                               |       |
| [Btu/h]                          | [kcal/h] | [W] | [W]                         | [A]                           | [kg/h]  | [Btu/Wh]                  | [kcal/Wh]                     | [W/W] |
| 404                              | 102      | 118 | 81                          | 0.62                          | 1.54  | 5.01                      | 1.26                          | 1.47  |

|                                  |          |     |                             |                               |   |                           |                               |       |
|----------------------------------|----------|-----|-----------------------------|-------------------------------|---|---------------------------|-------------------------------|-------|
| 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 consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%                             | EFFICIENCY RATE<br>+/- 7% |                               |       |
| [Btu/h]                          | [kcal/h] | [W] | [W]                         | [A]                           | [kg/h]  | [Btu/Wh]                  | [kcal/Wh]                     | [W/W] |
| 573                              | 144      | 168 | 124                         | 0.95                          | 2.18  | 4.61                      | 1.16                          | 1.35  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V1300RPM |                            | CECOMAF<br>Static |          |                             | (Condensing temperature 35°C (+95°F) ) |                         |                           |          |           |       |
|----------------------------------|----------------------------|-------------------|----------|-----------------------------|--|-------------------------|---------------------------|----------|-----------|-------|
| Evaporating temperature          | Cooling capacity<br>+/- 5% |                   |          | Power consumption<br>+/- 5% | Current consumption<br>+/- 5%          | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |          |           |       |
|                                  | °C (°F)                    | [Btu/h]           | [kcal/h] | [W]                         | [W]                                    | [A]                     | [kg/h]                    | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31)                        | 134                        | 34                | 39       | 24                          | 0.21                                   | 0.43                    | 5.67                      | 1.43     | 1.66      |       |
| -30 (-22)                        | 177                        | 45                | 52       | 27                          | 0.24                                   | 0.57                    | 6.52                      | 1.64     | 1.91      |       |
| -25 (-13)                        | 232                        | 58                | 68       | 31                          | 0.28                                   | 0.74                    | 7.35                      | 1.85     | 2.15      |       |
| -20 (- 4)                        | 300                        | 75                | 88       | 36                          | 0.32                                   | 0.96                    | 8.26                      | 2.08     | 2.42      |       |
| -15 (+ 5)                        | 381                        | 96                | 112      | 41                          | 0.35                                   | 1.23                    | 9.35                      | 2.36     | 2.74      |       |
| -10 (+14)                        | 478                        | 120               | 140      | 45                          | 0.38                                   | 1.54                    | 10.70                     | 2.70     | 3.13      |       |

| TEST CONDITIONS:<br>@220V1300RPM |                            | CECOMAF<br>Static |          |                             | (Condensing temperature 45°C (+113°F) ) |                         |                           |          |           |       |
|----------------------------------|----------------------------|-------------------|----------|-----------------------------|---|-------------------------|---------------------------|----------|-----------|-------|
| Evaporating temperature          | Cooling capacity<br>+/- 5% |                   |          | Power consumption<br>+/- 5% | Current consumption<br>+/- 5%           | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |          |           |       |
|                                  | °C (°F)                    | [Btu/h]           | [kcal/h] | [W]                         | [W]                                     | [A]                     | [kg/h]                    | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31)                        | 110                        | 28                | 32       | 23                          | 0.21                                    | 0.38                    | 4.79                      | 1.21     | 1.40      |       |
| -30 (-22)                        | 153                        | 38                | 45       | 28                          | 0.25                                    | 0.53                    | 5.38                      | 1.36     | 1.58      |       |
| -25 (-13)                        | 205                        | 52                | 60       | 35                          | 0.29                                    | 0.72                    | 5.91                      | 1.49     | 1.73      |       |
| -20 (- 4)                        | 270                        | 68                | 79       | 41                          | 0.34                                    | 0.94                    | 6.46                      | 1.63     | 1.89      |       |
| -15 (+ 5)                        | 347                        | 87                | 102      | 48                          | 0.39                                    | 1.21                    | 7.14                      | 1.80     | 2.09      |       |
| -10 (+14)                        | 438                        | 110               | 128      | 54                          | 0.44                                    | 1.53                    | 8.02                      | 2.02     | 2.35      |       |

| TEST CONDITIONS:<br>@220V1300RPM |                            | CECOMAF<br>Static |          |                             | (Condensing temperature 55°C (+131°F) ) |                         |                           |          |           |       |
|----------------------------------|----------------------------|-------------------|----------|-----------------------------|---|-------------------------|---------------------------|----------|-----------|-------|
| Evaporating temperature          | Cooling capacity<br>+/- 5% |                   |          | Power consumption<br>+/- 5% | Current consumption<br>+/- 5%           | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |          |           |       |
|                                  | °C (°F)                    | [Btu/h]           | [kcal/h] | [W]                         | [W]                                     | [A]                     | [kg/h]                    | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31)                        | 91                         | 23                | 27       | 24                          | 0.21                                    | 0.35                    | 3.72                      | 0.94     | 1.09      |       |
| -30 (-22)                        | 125                        | 32                | 37       | 29                          | 0.25                                    | 0.48                    | 4.27                      | 1.08     | 1.25      |       |
| -25 (-13)                        | 168                        | 42                | 49       | 36                          | 0.30                                    | 0.64                    | 4.70                      | 1.18     | 1.38      |       |
| -20 (- 4)                        | 222                        | 56                | 65       | 44                          | 0.37                                    | 0.85                    | 5.10                      | 1.28     | 1.49      |       |
| -15 (+ 5)                        | 287                        | 72                | 84       | 52                          | 0.44                                    | 1.10                    | 5.56                      | 1.40     | 1.63      |       |
| -10 (+14)                        | 364                        | 92                | 107      | 59                          | 0.52                                    | 1.40                    | 6.19                      | 1.56     | 1.81      |       |

| TEST CONDITIONS:<br>@220V1600RPM |                            | CECOMAF<br>Static |          |                             | (Condensing temperature 35°C (+95°F) ) |                         |                           |          |           |       |
|----------------------------------|----------------------------|-------------------|----------|-----------------------------|--|-------------------------|---------------------------|----------|-----------|-------|
| Evaporating temperature          | Cooling capacity<br>+/- 5% |                   |          | Power consumption<br>+/- 5% | Current consumption<br>+/- 5%          | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |          |           |       |
|                                  | °C (°F)                    | [Btu/h]           | [kcal/h] | [W]                         | [W]                                    | [A]                     | [kg/h]                    | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31)                        | 158                        | 40                | 46       | 28                          | 0.24                                   | 0.50                    | 5.73                      | 1.44     | 1.68      |       |
| -30 (-22)                        | 212                        | 53                | 62       | 33                          | 0.28                                   | 0.68                    | 6.53                      | 1.64     | 1.91      |       |
| -25 (-13)                        | 280                        | 71                | 82       | 38                          | 0.32                                   | 0.90                    | 7.40                      | 1.86     | 2.17      |       |
| -20 (- 4)                        | 365                        | 92                | 107      | 43                          | 0.36                                   | 1.17                    | 8.41                      | 2.12     | 2.46      |       |
| -15 (+ 5)                        | 468                        | 118               | 137      | 49                          | 0.40                                   | 1.50                    | 9.59                      | 2.42     | 2.81      |       |
| -10 (+14)                        | 590                        | 149               | 173      | 54                          | 0.44                                   | 1.90                    | 10.99                     | 2.77     | 3.22      |       |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:        |       | CECOMAF          |          |     | (Condensing temperature 45°C (+113°F)) |                     |               |                 |           |       |
|-------------------------|-------|------------------|----------|-----|--|---------------------|---------------|-----------------|-----------|-------|
| @220V1600RPM            |       | Static           |          |     |  |                     |               |                 |           |       |
| Evaporating temperature |       | Cooling capacity |          |     | Power consumption                      | Current consumption | Gas flow rate | EFFICIENCY RATE |           |       |
|                         |       | +/- 5%           |          |     | +/- 5%                                 | +/- 5%              | +/- 5%        | +/- 7%          |           |       |
| °C                      | (°F)  | [Btu/h]          | [kcal/h] | [W] | [W]                                    | [A]                 | [kg/h]        | [Btu/Wh]        | [kcal/Wh] | [W/W] |
| -35                     | (-31) | 144              | 36       | 42  | 29                                     | 0.27                | 0.50          | 4.94            | 1.25      | 1.45  |
| -30                     | (-22) | 191              | 48       | 56  | 35                                     | 0.31                | 0.67          | 5.53            | 1.39      | 1.62  |
| -25                     | (-13) | 250              | 63       | 73  | 41                                     | 0.35                | 0.87          | 6.11            | 1.54      | 1.79  |
| -20                     | (- 4) | 324              | 82       | 95  | 48                                     | 0.40                | 1.13          | 6.74            | 1.70      | 1.98  |
| -15                     | (+ 5) | 412              | 104      | 121 | 55                                     | 0.44                | 1.44          | 7.47            | 1.88      | 2.19  |
| -10                     | (+14) | 519              | 131      | 152 | 62                                     | 0.49                | 1.82          | 8.34            | 2.10      | 2.44  |

| TEST CONDITIONS:        |       | CECOMAF          |          |     | (Condensing temperature 55°C (+131°F)) |                     |               |                 |           |       |
|-------------------------|-------|------------------|----------|-----|--|---------------------|---------------|-----------------|-----------|-------|
| @220V1600RPM            |       | Static           |          |     |  |                     |               |                 |           |       |
| Evaporating temperature |       | Cooling capacity |          |     | Power consumption                      | Current consumption | Gas flow rate | EFFICIENCY RATE |           |       |
|                         |       | +/- 5%           |          |     | +/- 5%                                 | +/- 5%              | +/- 5%        | +/- 7%          |           |       |
| °C                      | (°F)  | [Btu/h]          | [kcal/h] | [W] | [W]                                    | [A]                 | [kg/h]        | [Btu/Wh]        | [kcal/Wh] | [W/W] |
| -35                     | (-31) | 109              | 28       | 32  | 29                                     | 0.25                | 0.42          | 3.82            | 0.96      | 1.12  |
| -30                     | (-22) | 154              | 39       | 45  | 35                                     | 0.29                | 0.59          | 4.43            | 1.12      | 1.30  |
| -25                     | (-13) | 209              | 53       | 61  | 42                                     | 0.35                | 0.80          | 4.95            | 1.25      | 1.45  |
| -20                     | (- 4) | 276              | 69       | 81  | 51                                     | 0.41                | 1.05          | 5.44            | 1.37      | 1.59  |
| -15                     | (+ 5) | 356              | 90       | 104 | 60                                     | 0.48                | 1.36          | 5.93            | 1.50      | 1.74  |
| -10                     | (+14) | 451              | 114      | 132 | 69                                     | 0.55                | 1.73          | 6.49            | 1.64      | 1.90  |

| TEST CONDITIONS:        |       | CECOMAF          |          |     | (Condensing temperature 35°C (+95°F)) |                     |               |                 |           |       |
|-------------------------|-------|------------------|----------|-----|---------------------------------------|---------------------|---------------|-----------------|-----------|-------|
| @220V2000RPM            |       | Static           |          |     |                                       |                     |               |                 |           |       |
| Evaporating temperature |       | Cooling capacity |          |     | Power consumption                     | Current consumption | Gas flow rate | EFFICIENCY RATE |           |       |
|                         |       | +/- 5%           |          |     | +/- 5%                                | +/- 5%              | +/- 5%        | +/- 7%          |           |       |
| °C                      | (°F)  | [Btu/h]          | [kcal/h] | [W] | [W]                                   | [A]                 | [kg/h]        | [Btu/Wh]        | [kcal/Wh] | [W/W] |
| -35                     | (-31) | 201              | 51       | 59  | 35                                    | 0.30                | 0.64          | 5.75            | 1.45      | 1.69  |
| -30                     | (-22) | 275              | 69       | 81  | 41                                    | 0.34                | 0.88          | 6.61            | 1.67      | 1.94  |
| -25                     | (-13) | 365              | 92       | 107 | 48                                    | 0.38                | 1.17          | 7.53            | 1.90      | 2.21  |
| -20                     | (- 4) | 471              | 119      | 138 | 55                                    | 0.43                | 1.51          | 8.55            | 2.15      | 2.50  |
| -15                     | (+ 5) | 596              | 150      | 175 | 62                                    | 0.49                | 1.92          | 9.68            | 2.44      | 2.84  |
| -10                     | (+14) | 741              | 187      | 217 | 68                                    | 0.54                | 2.39          | 10.97           | 2.76      | 3.21  |

| TEST CONDITIONS:        |       | CECOMAF          |          |     | (Condensing temperature 45°C (+113°F)) |                     |               |                 |           |       |
|-------------------------|-------|------------------|----------|-----|--|---------------------|---------------|-----------------|-----------|-------|
| @220V2000RPM            |       | Static           |          |     |  |                     |               |                 |           |       |
| Evaporating temperature |       | Cooling capacity |          |     | Power consumption                      | Current consumption | Gas flow rate | EFFICIENCY RATE |           |       |
|                         |       | +/- 5%           |          |     | +/- 5%                                 | +/- 5%              | +/- 5%        | +/- 7%          |           |       |
| °C                      | (°F)  | [Btu/h]          | [kcal/h] | [W] | [W]                                    | [A]                 | [kg/h]        | [Btu/Wh]        | [kcal/Wh] | [W/W] |
| -35                     | (-31) | 173              | 44       | 51  | 36                                     | 0.29                | 0.60          | 4.85            | 1.22      | 1.42  |
| -30                     | (-22) | 239              | 60       | 70  | 43                                     | 0.35                | 0.83          | 5.51            | 1.39      | 1.61  |
| -25                     | (-13) | 318              | 80       | 93  | 51                                     | 0.41                | 1.11          | 6.18            | 1.56      | 1.81  |
| -20                     | (- 4) | 414              | 104      | 121 | 60                                     | 0.47                | 1.44          | 6.89            | 1.74      | 2.02  |
| -15                     | (+ 5) | 528              | 133      | 155 | 68                                     | 0.54                | 1.84          | 7.69            | 1.94      | 2.25  |
| -10                     | (+14) | 663              | 167      | 194 | 77                                     | 0.61                | 2.32          | 8.59            | 2.16      | 2.52  |

### 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)                        | 143                        | 36                | 42       | 36                          | 0.29                                   | 0.54                    | 3.96                      | 1.00     | 1.16      |       |
| -30 (-22)                        | 196                        | 49                | 58       | 44                          | 0.36                                   | 0.75                    | 4.50                      | 1.14     | 1.32      |       |
| -25 (-13)                        | 264                        | 67                | 77       | 53                          | 0.43                                   | 1.01                    | 5.02                      | 1.27     | 1.47      |       |
| -20 (- 4)                        | 348                        | 88                | 102      | 63                          | 0.50                                   | 1.33                    | 5.54                      | 1.40     | 1.62      |       |
| -15 (+ 5)                        | 450                        | 113               | 132      | 74                          | 0.58                                   | 1.72                    | 6.09                      | 1.53     | 1.78      |       |
| -10 (+14)                        | 573                        | 144               | 168      | 85                          | 0.66                                   | 2.20                    | 6.70                      | 1.69     | 1.96      |       |

| 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)                        | 312                        | 79                | 91       | 54                          | 0.42                                  | 1.00                    | 5.82                      | 1.47     | 1.71      |       |
| -30 (-22)                        | 422                        | 106               | 124      | 64                          | 0.49                                  | 1.35                    | 6.62                      | 1.67     | 1.94      |       |
| -25 (-13)                        | 556                        | 140               | 163      | 75                          | 0.57                                  | 1.79                    | 7.44                      | 1.88     | 2.18      |       |
| -20 (- 4)                        | 716                        | 181               | 210      | 86                          | 0.66                                  | 2.30                    | 8.32                      | 2.10     | 2.44      |       |
| -15 (+ 5)                        | 907                        | 229               | 266      | 98                          | 0.75                                  | 2.92                    | 9.28                      | 2.34     | 2.72      |       |
| -10 (+14)                        | 1131                       | 285               | 331      | 109                         | 0.84                                  | 3.65                    | 10.35                     | 2.61     | 3.03      |       |

| 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)                        | 263                        | 66                | 77       | 54                          | 0.43                                   | 0.91                    | 4.83                      | 1.22     | 1.41      |       |
| -30 (-22)                        | 360                        | 91                | 105      | 66                          | 0.51                                   | 1.25                    | 5.46                      | 1.38     | 1.60      |       |
| -25 (-13)                        | 478                        | 121               | 140      | 78                          | 0.61                                   | 1.66                    | 6.09                      | 1.54     | 1.79      |       |
| -20 (- 4)                        | 622                        | 157               | 182      | 92                          | 0.71                                   | 2.17                    | 6.76                      | 1.70     | 1.98      |       |
| -15 (+ 5)                        | 795                        | 200               | 233      | 106                         | 0.81                                   | 2.78                    | 7.48                      | 1.89     | 2.19      |       |
| -10 (+14)                        | 999                        | 252               | 293      | 120                         | 0.92                                   | 3.50                    | 8.30                      | 2.09     | 2.43      |       |

| 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)                        | 218                        | 55                | 64       | 55                          | 0.43                                   | 0.83                    | 3.98                      | 1.00     | 1.17      |       |
| -30 (-22)                        | 301                        | 76                | 88       | 67                          | 0.52                                   | 1.14                    | 4.51                      | 1.14     | 1.32      |       |
| -25 (-13)                        | 404                        | 102               | 118      | 81                          | 0.62                                   | 1.54                    | 5.01                      | 1.26     | 1.47      |       |
| -20 (- 4)                        | 531                        | 134               | 156      | 96                          | 0.74                                   | 2.03                    | 5.52                      | 1.39     | 1.62      |       |
| -15 (+ 5)                        | 685                        | 173               | 201      | 113                         | 0.86                                   | 2.62                    | 6.07                      | 1.53     | 1.78      |       |
| -10 (+14)                        | 869                        | 219               | 255      | 130                         | 0.98                                   | 3.34                    | 6.70                      | 1.69     | 1.96      |       |

### 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)                        | 463                        | 117               | 136      | 87                          | 0.67                                  | 1.48                    | 5.35                      | 1.35     | 1.57      |       |
| -30 (-22)                        | 603                        | 152               | 177      | 100                         | 0.74                                  | 1.94                    | 6.02                      | 1.52     | 1.76      |       |
| -25 (-13)                        | 774                        | 195               | 227      | 115                         | 0.85                                  | 2.49                    | 6.72                      | 1.69     | 1.97      |       |
| -20 (- 4)                        | 984                        | 248               | 288      | 132                         | 0.99                                  | 3.16                    | 7.46                      | 1.88     | 2.19      |       |
| -15 (+ 5)                        | 1240                       | 313               | 363      | 150                         | 1.14                                  | 3.99                    | 8.27                      | 2.08     | 2.42      |       |
| -10 (+14)                        | 1552                       | 391               | 455      | 170                         | 1.28                                  | 5.00                    | 9.15                      | 2.31     | 2.68      |       |

| 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)                        | 400                        | 101               | 117      | 89                          | 0.69                                   | 1.39                    | 4.47                      | 1.13     | 1.31      |       |
| -30 (-22)                        | 524                        | 132               | 154      | 105                         | 0.79                                   | 1.82                    | 5.00                      | 1.26     | 1.47      |       |
| -25 (-13)                        | 676                        | 170               | 198      | 122                         | 0.93                                   | 2.35                    | 5.57                      | 1.40     | 1.63      |       |
| -20 (- 4)                        | 863                        | 217               | 253      | 140                         | 1.07                                   | 3.01                    | 6.18                      | 1.56     | 1.81      |       |
| -15 (+ 5)                        | 1093                       | 275               | 320      | 160                         | 1.21                                   | 3.82                    | 6.86                      | 1.73     | 2.01      |       |
| -10 (+14)                        | 1374                       | 346               | 403      | 180                         | 1.33                                   | 4.81                    | 7.62                      | 1.92     | 2.23      |       |

| 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)                        | 317                        | 80                | 93       | 86                          | 0.67                                   | 1.21                    | 3.68                      | 0.93     | 1.08      |       |
| -30 (-22)                        | 433                        | 109               | 127      | 104                         | 0.80                                   | 1.65                    | 4.13                      | 1.04     | 1.21      |       |
| -25 (-13)                        | 573                        | 144               | 168      | 124                         | 0.95                                   | 2.18                    | 4.61                      | 1.16     | 1.35      |       |
| -20 (- 4)                        | 745                        | 188               | 218      | 145                         | 1.10                                   | 2.84                    | 5.14                      | 1.30     | 1.51      |       |
| -15 (+ 5)                        | 956                        | 241               | 280      | 167                         | 1.22                                   | 3.66                    | 5.74                      | 1.45     | 1.68      |       |
| -10 (+14)                        | 1216                       | 306               | 356      | 189                         | 1.32                                   | 4.67                    | 6.42                      | 1.62     | 1.88      |       |

### F - EXTERNAL CHARACTERISTICS

|                         |                              |      |                          |
|-------------------------|------------------------------|------|--------------------------|
| 1 Base plate            | European Standard VES        |      |                          |
| 2 Tray holder           | No                           |      |                          |
| 3 Connectors            |                              |      |                          |
| 3.1 SUCTION             | 6.2 +0.05/+0.05              | [mm] | (0.244" +0.002"/+0.002") |
| 3.1.1 Material          | Copper                       |      |                          |
| 3.1.2 Shape             | Slanted 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 48° 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                 |      |                          |