

### COMPRESSOR DEFINITION

|                           |                        |
|---------------------------|------------------------|
| Designation               | <b>VEM C9C</b>         |
| Nominal Voltage/Frequency | <b>230 V 40-150 Hz</b> |
| Engineering Number        | <b>513906052</b>       |

### 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                            | 80 to 140 V                       | 80 to 140 V |
| 8.2 LBP (43°C Ambient temperature) | Static                            | 80 to 140 V                       | 80 to 140 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            | 210            | [ml] (7.10 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 |                                  |
| 4 Weight (with oil charge)    | 8              | [kg] (17.64 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                          | CF02D01 M 0.0 X/VCC32456XXXX      |                                    |
| 3 Start capacitor                            | -                                 | [μF(VAC minimum)]                  |
| 4 Run capacitor                              | -                                 | [μF(VAC minimum)]                  |
| 5 Motor protection                           | VCC3 115623N01SH3.1               |                                    |
| 6 Start winding resistance                   | 8.10                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 8.10                              | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (40/150 Hz)    | 2.10                              | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (40/150 Hz) | 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 - UL - VDE                    |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                                  |          |     |                             |                               |  |                           |  |       |  |
|----------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|--|-------|--|
| TEST CONDITIONS:<br>@220V1600RPM |          |     | ASHRAELBP32<br>Static       |                               | Evaporating temperature<br>(Condensing temperature |                           | -23.3°C (-9.94°F)<br>54.4°C (129.92°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] |  |
| 292                              | 74       | 86  | 44                          | 0.35                          | 0.92   | 6.65                      | 1.68                                   | 1.95  |  |

|                                  |          |     |                             |                               |  |                           |  |       |  |
|----------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|--|-------|--|
| TEST CONDITIONS:<br>@220V2000RPM |          |     | ASHRAELBP32<br>Static       |                               | Evaporating temperature<br>(Condensing temperature |                           | -23.3°C (-9.94°F)<br>54.4°C (129.92°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] |  |
| 366                              | 92       | 107 | 55                          | 0.87                          | 1.15   | 6.69                      | 1.69                                   | 1.96  |  |

|                                  |          |     |                             |                               |  |                           |  |       |  |
|----------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|--|-------|--|
| TEST CONDITIONS:<br>@220V3000RPM |          |     | ASHRAELBP32<br>Static       |                               | Evaporating temperature<br>(Condensing temperature |                           | -23.3°C (-9.94°F)<br>54.4°C (129.92°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] |  |
| 543                              | 137      | 159 | 81                          | 0.62                          | 1.70   | 6.70                      | 1.69                                   | 1.96  |  |

|                                  |          |     |                             |                               |  |                           |  |       |  |
|----------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|--|-------|--|
| TEST CONDITIONS:<br>@220V4500RPM |          |     | ASHRAELBP32<br>Static       |                               | Evaporating temperature<br>(Condensing temperature |                           | -23.3°C (-9.94°F)<br>54.4°C (129.92°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] |  |
| 729                              | 184      | 214 | 114                         | 0.86                          | 2.29   | 6.39                      | 1.61                                   | 1.87  |  |

### E - PERFORMANCE - CURVES

|                                  |                            |                    |         |                             |                               |                         |  |        |          |           |
|----------------------------------|----------------------------|--------------------|---------|-----------------------------|-------------------------------|-------------------------|--|--------|----------|-----------|
| TEST CONDITIONS:<br>@220V1200RPM |                            | ASHRAE32<br>Static |         |                             |                               |                         | (Condensing temperature 35°C (+95°F) ) |        |          |           |
| Evaporating temperature          | Cooling capacity<br>+/- 5% |                    |         | Power consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7%              |        |          |           |
|                                  | °C                         | (°F)               | [Btu/h] | [kcal/h]                    | [W]                           | [W]                     | [A]                                    | [kg/h] | [Btu/Wh] | [kcal/Wh] |
| -35                              | (-31)                      | 122                | 31      | 36                          | 20                            | 0.38                    | 0.38                                   | 5.98   | 1.51     | 1.75      |
| -30                              | (-22)                      | 166                | 42      | 49                          | 24                            | 0.52                    | 0.52                                   | 6.92   | 1.74     | 2.03      |
| -25                              | (-13)                      | 220                | 55      | 64                          | 28                            | 0.69                    | 0.69                                   | 7.98   | 2.01     | 2.34      |
| -20                              | (- 4)                      | 284                | 71      | 83                          | 31                            | 0.89                    | 0.89                                   | 9.22   | 2.32     | 2.70      |
| -15                              | (+ 5)                      | 359                | 91      | 105                         | 34                            | 1.13                    | 1.13                                   | 10.67  | 2.69     | 3.13      |
| -10                              | (+14)                      | 449                | 113     | 131                         | 36                            | 1.41                    | 1.41                                   | 12.40  | 3.12     | 3.63      |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V1200RPM |       | ASHRAE32<br>Static         |          |     | (Condensing temperature 45°C (+113°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |     | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -35                              | (-31) | 109                        | 28       | 32  | 21                                     | 0.34                          | 0.34                    | 5.12                      | 1.29      | 1.50  |
| -30                              | (-22) | 154                        | 39       | 45  | 26                                     | 0.48                          | 0.48                    | 5.93                      | 1.50      | 1.74  |
| -25                              | (-13) | 207                        | 52       | 61  | 30                                     | 0.65                          | 0.65                    | 6.80                      | 1.71      | 1.99  |
| -20                              | (- 4) | 270                        | 68       | 79  | 35                                     | 0.85                          | 0.85                    | 7.77                      | 1.96      | 2.28  |
| -15                              | (+ 5) | 346                        | 87       | 101 | 39                                     | 1.09                          | 1.09                    | 8.89                      | 2.24      | 2.60  |
| -10                              | (+14) | 435                        | 110      | 127 | 43                                     | 1.37                          | 1.37                    | 10.22                     | 2.57      | 2.99  |

| TEST CONDITIONS:<br>@220V1200RPM |       | ASHRAE32<br>Static         |          |     | (Condensing temperature 55°C (+131°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |     | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -35                              | (-31) | 94                         | 24       | 27  | 21                                     | 0.29                          | 0.29                    | 4.37                      | 1.10      | 1.28  |
| -30                              | (-22) | 138                        | 35       | 40  | 27                                     | 0.43                          | 0.43                    | 5.16                      | 1.30      | 1.51  |
| -25                              | (-13) | 191                        | 48       | 56  | 32                                     | 0.60                          | 0.60                    | 5.95                      | 1.50      | 1.74  |
| -20                              | (- 4) | 255                        | 64       | 75  | 38                                     | 0.80                          | 0.80                    | 6.77                      | 1.71      | 1.98  |
| -15                              | (+ 5) | 331                        | 83       | 97  | 43                                     | 1.04                          | 1.04                    | 7.68                      | 1.93      | 2.25  |
| -10                              | (+14) | 420                        | 106      | 123 | 48                                     | 1.32                          | 1.32                    | 8.72                      | 2.20      | 2.56  |

| TEST CONDITIONS:<br>@220V1600RPM |       | ASHRAE32<br>Static         |          |     | (Condensing temperature 35°C (+95°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|-----|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |     | Power consumption<br>+/- 5%           | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                   | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -35                              | (-31) | 169                        | 43       | 50  | 26                                    | 0.20                          | 0.53                    | 6.37                      | 1.61      | 1.87  |
| -30                              | (-22) | 228                        | 58       | 67  | 31                                    | 0.24                          | 0.72                    | 7.25                      | 1.83      | 2.12  |
| -25                              | (-13) | 300                        | 76       | 88  | 36                                    | 0.28                          | 0.94                    | 8.24                      | 2.08      | 2.41  |
| -20                              | (- 4) | 386                        | 97       | 113 | 41                                    | 0.32                          | 1.21                    | 9.39                      | 2.37      | 2.75  |
| -15                              | (+ 5) | 488                        | 123      | 143 | 45                                    | 0.35                          | 1.53                    | 10.75                     | 2.71      | 3.15  |
| -10                              | (+14) | 607                        | 153      | 178 | 49                                    | 0.38                          | 1.92                    | 12.38                     | 3.12      | 3.63  |

| TEST CONDITIONS:<br>@220V1600RPM |       | ASHRAE32<br>Static         |          |     | (Condensing temperature 45°C (+113°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |     | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -35                              | (-31) | 153                        | 38       | 45  | 28                                     | 0.21                          | 0.48                    | 5.50                      | 1.39      | 1.61  |
| -30                              | (-22) | 212                        | 54       | 62  | 34                                     | 0.25                          | 0.67                    | 6.31                      | 1.59      | 1.85  |
| -25                              | (-13) | 284                        | 72       | 83  | 40                                     | 0.30                          | 0.89                    | 7.15                      | 1.80      | 2.09  |
| -20                              | (- 4) | 370                        | 93       | 108 | 46                                     | 0.35                          | 1.16                    | 8.07                      | 2.03      | 2.36  |
| -15                              | (+ 5) | 472                        | 119      | 138 | 52                                     | 0.39                          | 1.49                    | 9.12                      | 2.30      | 2.67  |
| -10                              | (+14) | 592                        | 149      | 173 | 57                                     | 0.43                          | 1.87                    | 10.36                     | 2.61      | 3.03  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:        |                  | ASHRAE32 |     |                   | (Condensing temperature 55°C (+131°F)) |               |                 |           |       |  |
|-------------------------|------------------|----------|-----|-------------------|--|---------------|-----------------|-----------|-------|--|
| @220V1600RPM            |                  | Static   |     |                   |  |               |                 |           |       |  |
| Evaporating temperature | Cooling capacity |          |     | Power consumption | Current consumption                    | Gas flow rate | EFFICIENCY RATE |           |       |  |
|                         | +/- 5%           |          |     |                   |  |               | +/- 7%          |           |       |  |
| °C (°F)                 | [Btu/h]          | [kcal/h] | [W] | [W]               | [A]                                    | [kg/h]        | [Btu/Wh]        | [kcal/Wh] | [W/W] |  |
| -35 (-31)               | 134              | 34       | 39  | 29                | 0.22                                   | 0.42          | 4.66            | 1.17      | 1.36  |  |
| -30 (-22)               | 194              | 49       | 57  | 35                | 0.27                                   | 0.61          | 5.52            | 1.39      | 1.62  |  |
| -25 (-13)               | 266              | 67       | 78  | 42                | 0.32                                   | 0.83          | 6.33            | 1.60      | 1.86  |  |
| -20 (- 4)               | 351              | 89       | 103 | 49                | 0.37                                   | 1.10          | 7.14            | 1.80      | 2.09  |  |
| -15 (+ 5)               | 453              | 114      | 133 | 57                | 0.43                                   | 1.43          | 8.01            | 2.02      | 2.35  |  |
| -10 (+14)               | 573              | 144      | 168 | 64                | 0.49                                   | 1.81          | 8.97            | 2.26      | 2.63  |  |

| TEST CONDITIONS:        |                  | ASHRAE32 |     |                   | (Condensing temperature 35°C (+95°F)) |               |                 |           |       |  |
|-------------------------|------------------|----------|-----|-------------------|---------------------------------------|---------------|-----------------|-----------|-------|--|
| @220V2000RPM            |                  | Static   |     |                   |                                       |               |                 |           |       |  |
| Evaporating temperature | Cooling capacity |          |     | Power consumption | Current consumption                   | Gas flow rate | EFFICIENCY RATE |           |       |  |
|                         | +/- 5%           |          |     |                   |                                       |               | +/- 7%          |           |       |  |
| °C (°F)                 | [Btu/h]          | [kcal/h] | [W] | [W]               | [A]                                   | [kg/h]        | [Btu/Wh]        | [kcal/Wh] | [W/W] |  |
| -35 (-31)               | 213              | 54       | 62  | 33                | 0.25                                  | 0.67          | 6.45            | 1.63      | 1.89  |  |
| -30 (-22)               | 287              | 72       | 84  | 39                | 0.30                                  | 0.90          | 7.31            | 1.84      | 2.14  |  |
| -25 (-13)               | 376              | 95       | 110 | 46                | 0.35                                  | 1.18          | 8.26            | 2.08      | 2.42  |  |
| -20 (- 4)               | 483              | 122      | 142 | 52                | 0.40                                  | 1.52          | 9.35            | 2.36      | 2.74  |  |
| -15 (+ 5)               | 610              | 154      | 179 | 57                | 0.44                                  | 1.92          | 10.66           | 2.69      | 3.12  |  |
| -10 (+14)               | 759              | 191      | 222 | 62                | 0.47                                  | 2.39          | 12.23           | 3.08      | 3.58  |  |

| TEST CONDITIONS:        |                  | ASHRAE32 |     |                   | (Condensing temperature 45°C (+113°F)) |               |                 |           |       |  |
|-------------------------|------------------|----------|-----|-------------------|--|---------------|-----------------|-----------|-------|--|
| @220V2000RPM            |                  | Static   |     |                   |  |               |                 |           |       |  |
| Evaporating temperature | Cooling capacity |          |     | Power consumption | Current consumption                    | Gas flow rate | EFFICIENCY RATE |           |       |  |
|                         | +/- 5%           |          |     |                   |  |               | +/- 7%          |           |       |  |
| °C (°F)                 | [Btu/h]          | [kcal/h] | [W] | [W]               | [A]                                    | [kg/h]        | [Btu/Wh]        | [kcal/Wh] | [W/W] |  |
| -35 (-31)               | 194              | 49       | 57  | 35                | 0.26                                   | 0.61          | 5.61            | 1.41      | 1.64  |  |
| -30 (-22)               | 269              | 68       | 79  | 42                | 0.32                                   | 0.84          | 6.41            | 1.62      | 1.88  |  |
| -25 (-13)               | 358              | 90       | 105 | 49                | 0.38                                   | 1.12          | 7.22            | 1.82      | 2.12  |  |
| -20 (- 4)               | 464              | 117      | 136 | 57                | 0.44                                   | 1.46          | 8.09            | 2.04      | 2.37  |  |
| -15 (+ 5)               | 591              | 149      | 173 | 65                | 0.49                                   | 1.86          | 9.09            | 2.29      | 2.66  |  |
| -10 (+14)               | 740              | 187      | 217 | 72                | 0.55                                   | 2.34          | 10.28           | 2.59      | 3.01  |  |

| TEST CONDITIONS:        |                  | ASHRAE32 |     |                   | (Condensing temperature 55°C (+131°F)) |               |                 |           |       |  |
|-------------------------|------------------|----------|-----|-------------------|--|---------------|-----------------|-----------|-------|--|
| @220V2000RPM            |                  | Static   |     |                   |  |               |                 |           |       |  |
| Evaporating temperature | Cooling capacity |          |     | Power consumption | Current consumption                    | Gas flow rate | EFFICIENCY RATE |           |       |  |
|                         | +/- 5%           |          |     |                   |  |               | +/- 7%          |           |       |  |
| °C (°F)                 | [Btu/h]          | [kcal/h] | [W] | [W]               | [A]                                    | [kg/h]        | [Btu/Wh]        | [kcal/Wh] | [W/W] |  |
| -35 (-31)               | 171              | 43       | 50  | 36                | 0.27                                   | 0.54          | 4.74            | 1.19      | 1.39  |  |
| -30 (-22)               | 246              | 62       | 72  | 44                | 0.33                                   | 0.77          | 5.61            | 1.41      | 1.64  |  |
| -25 (-13)               | 335              | 84       | 98  | 52                | 0.40                                   | 1.05          | 6.41            | 1.62      | 1.88  |  |
| -20 (- 4)               | 442              | 111      | 129 | 62                | 0.47                                   | 1.39          | 7.20            | 1.81      | 2.11  |  |
| -15 (+ 5)               | 568              | 143      | 166 | 71                | 0.54                                   | 1.79          | 8.02            | 2.02      | 2.35  |  |
| -10 (+14)               | 717              | 181      | 210 | 80                | 0.61                                   | 2.26          | 8.95            | 2.26      | 2.62  |  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V3000RPM |                            | ASHRAE32<br>Static |          |                             | (Condensing temperature 35°C (+95°F)) |                         |                           |          |           |       |
|----------------------------------|----------------------------|--------------------|----------|-----------------------------|---------------------------------------|-------------------------|---------------------------|----------|-----------|-------|
| Evaporating temperature          | Cooling capacity<br>+/- 5% |                    |          | Power consumption<br>+/- 5% | Current consumption<br>+/- 5%         | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |          |           |       |
|                                  | °C (°F)                    | [Btu/h]            | [kcal/h] | [W]                         | [W]                                   | [A]                     | [kg/h]                    | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31)                        | 314                        | 79                 | 92       | 50                          | 0.38                                  | 0.98                    | 6.25                      | 1.58     | 1.83      |       |
| -30 (-22)                        | 426                        | 107                | 125      | 60                          | 0.46                                  | 1.33                    | 7.03                      | 1.77     | 2.06      |       |
| -25 (-13)                        | 561                        | 141                | 164      | 71                          | 0.54                                  | 1.76                    | 7.91                      | 1.99     | 2.32      |       |
| -20 (- 4)                        | 722                        | 182                | 212      | 81                          | 0.62                                  | 2.27                    | 8.94                      | 2.25     | 2.62      |       |
| -15 (+ 5)                        | 913                        | 230                | 268      | 90                          | 0.69                                  | 2.87                    | 10.18                     | 2.56     | 2.98      |       |
| -10 (+14)                        | 1138                       | 287                | 334      | 98                          | 0.75                                  | 3.59                    | 11.66                     | 2.94     | 3.42      |       |

| TEST CONDITIONS:<br>@220V3000RPM |                            | ASHRAE32<br>Static |          |                             | (Condensing temperature 45°C (+113°F)) |                         |                           |          |           |       |
|----------------------------------|----------------------------|--------------------|----------|-----------------------------|--|-------------------------|---------------------------|----------|-----------|-------|
| Evaporating temperature          | Cooling capacity<br>+/- 5% |                    |          | Power consumption<br>+/- 5% | Current consumption<br>+/- 5%          | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |          |           |       |
|                                  | °C (°F)                    | [Btu/h]            | [kcal/h] | [W]                         | [W]                                    | [A]                     | [kg/h]                    | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31)                        | 284                        | 72                 | 83       | 52                          | 0.39                                   | 0.89                    | 5.52                      | 1.39     | 1.62      |       |
| -30 (-22)                        | 396                        | 100                | 116      | 64                          | 0.48                                   | 1.24                    | 6.22                      | 1.57     | 1.82      |       |
| -25 (-13)                        | 530                        | 134                | 155      | 76                          | 0.58                                   | 1.66                    | 6.96                      | 1.75     | 2.04      |       |
| -20 (- 4)                        | 691                        | 174                | 203      | 89                          | 0.68                                   | 2.17                    | 7.77                      | 1.96     | 2.28      |       |
| -15 (+ 5)                        | 883                        | 222                | 259      | 101                         | 0.77                                   | 2.78                    | 8.71                      | 2.19     | 2.55      |       |
| -10 (+14)                        | 1108                       | 279                | 325      | 113                         | 0.86                                   | 3.50                    | 9.83                      | 2.48     | 2.88      |       |

| TEST CONDITIONS:<br>@220V3000RPM |                            | ASHRAE32<br>Static |          |                             | (Condensing temperature 55°C (+131°F)) |                         |                           |          |           |       |
|----------------------------------|----------------------------|--------------------|----------|-----------------------------|--|-------------------------|---------------------------|----------|-----------|-------|
| Evaporating temperature          | Cooling capacity<br>+/- 5% |                    |          | Power consumption<br>+/- 5% | Current consumption<br>+/- 5%          | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |          |           |       |
|                                  | °C (°F)                    | [Btu/h]            | [kcal/h] | [W]                         | [W]                                    | [A]                     | [kg/h]                    | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31)                        | 247                        | 62                 | 72       | 52                          | 0.39                                   | 0.77                    | 4.76                      | 1.20     | 1.40      |       |
| -30 (-22)                        | 359                        | 90                 | 105      | 65                          | 0.50                                   | 1.12                    | 5.52                      | 1.39     | 1.62      |       |
| -25 (-13)                        | 493                        | 124                | 144      | 79                          | 0.61                                   | 1.55                    | 6.22                      | 1.57     | 1.82      |       |
| -20 (- 4)                        | 654                        | 165                | 192      | 95                          | 0.72                                   | 2.06                    | 6.94                      | 1.75     | 2.03      |       |
| -15 (+ 5)                        | 846                        | 213                | 248      | 110                         | 0.84                                   | 2.66                    | 7.71                      | 1.94     | 2.26      |       |
| -10 (+14)                        | 1071                       | 270                | 314      | 125                         | 0.95                                   | 3.38                    | 8.58                      | 2.16     | 2.51      |       |

| TEST CONDITIONS:<br>@220V4500RPM |                            | ASHRAE32<br>Static |          |                             | (Condensing temperature 35°C (+95°F)) |                         |                           |          |           |       |
|----------------------------------|----------------------------|--------------------|----------|-----------------------------|---------------------------------------|-------------------------|---------------------------|----------|-----------|-------|
| Evaporating temperature          | Cooling capacity<br>+/- 5% |                    |          | Power consumption<br>+/- 5% | Current consumption<br>+/- 5%         | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |          |           |       |
|                                  | °C (°F)                    | [Btu/h]            | [kcal/h] | [W]                         | [W]                                   | [A]                     | [kg/h]                    | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31)                        | 457                        | 115                | 134      | 78                          | 0.58                                  | 1.43                    | 5.87                      | 1.48     | 1.72      |       |
| -30 (-22)                        | 605                        | 152                | 177      | 97                          | 0.68                                  | 1.90                    | 6.14                      | 1.55     | 1.80      |       |
| -25 (-13)                        | 787                        | 198                | 231      | 109                         | 0.80                                  | 2.47                    | 7.21                      | 1.82     | 2.11      |       |
| -20 (- 4)                        | 1006                       | 254                | 295      | 116                         | 0.91                                  | 3.16                    | 8.71                      | 2.19     | 2.55      |       |
| -15 (+ 5)                        | 1265                       | 319                | 371      | 124                         | 1.02                                  | 3.98                    | 10.24                     | 2.58     | 3.00      |       |
| -10 (+14)                        | 1568                       | 395                | 459      | 138                         | 1.12                                  | 4.95                    | 11.41                     | 2.88     | 3.34      |       |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V4500RPM |       | ASHRAE32<br>Static         |          |     | (Condensing temperature 45°C (+113°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |     | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -35                              | (-31) | 429                        | 108      | 126 | 78                                     | 0.62                          | 1.34                    | 5.53                      | 1.39      | 1.62  |
| -30                              | (-22) | 574                        | 145      | 168 | 97                                     | 0.74                          | 1.80                    | 5.93                      | 1.49      | 1.74  |
| -25                              | (-13) | 755                        | 190      | 221 | 108                                    | 0.87                          | 2.37                    | 7.07                      | 1.78      | 2.07  |
| -20                              | (- 4) | 973                        | 245      | 285 | 116                                    | 1.01                          | 3.06                    | 8.55                      | 2.16      | 2.51  |
| -15                              | (+ 5) | 1233                       | 311      | 361 | 127                                    | 1.15                          | 3.88                    | 10.00                     | 2.52      | 2.93  |
| -10                              | (+14) | 1537                       | 387      | 450 | 144                                    | 1.28                          | 4.85                    | 11.02                     | 2.78      | 3.23  |

| TEST CONDITIONS:<br>@220V4500RPM |       | ASHRAE32<br>Static         |          |     | (Condensing temperature 55°C (+131°F)) |                               |                         |                           |           |       |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature          |       | Cooling capacity<br>+/- 5% |          |     | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                               | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -35                              | (-31) | 389                        | 98       | 114 | 86                                     | 0.66                          | 1.22                    | 4.49                      | 1.13      | 1.31  |
| -30                              | (-22) | 532                        | 134      | 156 | 107                                    | 0.78                          | 1.67                    | 4.78                      | 1.20      | 1.40  |
| -25                              | (-13) | 712                        | 179      | 209 | 123                                    | 0.92                          | 2.23                    | 5.74                      | 1.45      | 1.68  |
| -20                              | (- 4) | 930                        | 234      | 273 | 136                                    | 1.08                          | 2.92                    | 6.98                      | 1.76      | 2.04  |
| -15                              | (+ 5) | 1192                       | 300      | 349 | 153                                    | 1.25                          | 3.75                    | 8.10                      | 2.04      | 2.37  |
| -10                              | (+14) | 1498                       | 377      | 439 | 177                                    | 1.41                          | 4.73                    | 8.73                      | 2.20      | 2.56  |

### F - EXTERNAL CHARACTERISTICS

|                         |                              |      |                          |
|-------------------------|------------------------------|------|--------------------------|
| 1 Base plate            | European Standard            |      |                          |
| 2 Tray holder           | Yes                          |      |                          |
| 3 Connectors            |                              |      |                          |
| 3.1 SUCTION             | 6.2 +0.05/+0.05              | [mm] | (0.244" +0.002"/+0.002") |
| 3.1.1 Material          | Copper                       |      |                          |
| 3.1.2 Shape             | Slanted 40° up + 0° to Back  |      |                          |
| 3.2 DISCHARGE           | 4.2 +0.10/-0.05              | [mm] | (0.165" +0.004"/-0.002") |
| 3.2.1 Material          | Copper                       |      |                          |
| 3.2.2 Shape             | Slanted 0° up + 24° to Back  |      |                          |
| 3.3 PROCESS             | 6.2 +0.05/+0.05              | [mm] | (0.244" +0.002"/+0.002") |
| 3.3.1 Material          | Copper                       |      |                          |
| 3.3.2 Shape             | Slanted 40° up + 45° to Back |      |                          |
| 3.4 Oil cooler (Copper) | No                           | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs                 |      |                          |