

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | VES F5C |
| Nominal Voltage/Frequency | 230 V 32-150 Hz |
| Engineering Number | 513907447 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|---|-----------------------------------|--------------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-600a | | |
| 3 Nominal voltage and frequency | 230 / 32-150 | [V / Hz] | |
| 4 Application type | Low-Medium Back Pressure (Fullmotion Compressors) | | |
| 4.1 Evaporating temperature range | -35°C to 0°C | (-31°F to 32°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 | 160 to 264 V | 160 to 264 V |
| 8.2 LBP (43°C Ambient temperature) | Static | 160 to 264 V | 160 to 264 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 ²] (98 psig) | / °C - °F |
| 9.2 Peak | 7.8 | [kgf/cm ²] (111 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|----------------|----------------------------------|
| 1 Commercial designation | 1/5 | [hp] |
| 2 Displacement | 5.19 | [cm ³] (0.317 cu.in) |
| 2.1 Bore [mm] | 21.000 | |
| 2.2 Stroke [mm] | 15.000 | |
| 3 Lubricant charge | 205 | [ml] (6.93 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 | |
| 4 Weight (with oil charge) | 6.3 | [kg] (13.89 lb.) |
| 5 Nitrogen charge | - | [kgf/cm ²] |

C - ELETRICAL DATA

| | | |
|--|------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 230 V 31.7-150 Hz 3~ (Three phase) | |
| 2 Starting device type | Inverter | |
| 2.1 Starting device | VESF 2456 XXX X | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | INVERTER VES 2456X | |
| 6 Start winding resistance | | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | | [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) | - | [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 | | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | | |
|----------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|--|-------|--|
| TEST CONDITIONS: @220V1300RPM | | | ASHRAELBP32 Static | | Evaporating temperature (Condensing temperature | | -23.3°C (-9.94°F) 54.4°C (129.92°F) | | |
| Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | | |
| [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] | |
| 113 | 28 | 33 | 19 | 0.18 | 0.35 | 6.01 | 1.51 | 1.76 | |

| | | | | | | | | | |
|----------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|--|-------|--|
| TEST CONDITIONS: @220V2000RPM | | | ASHRAELBP32 Static | | Evaporating temperature (Condensing temperature | | -23.3°C (-9.94°F) 54.4°C (129.92°F) | | |
| Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | | |
| [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] | |
| 177 | 45 | 52 | 29 | 0.26 | 0.56 | 6.21 | 1.56 | 1.82 | |

| | | | | | | | | | |
|----------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|--|-------|--|
| TEST CONDITIONS: @220V4500RPM | | | ASHRAELBP32 Static | | Evaporating temperature (Condensing temperature | | -23.3°C (-9.94°F) 54.4°C (129.92°F) | | |
| Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | | |
| [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] | |
| 406 | 102 | 119 | 68 | 0.53 | 1.27 | 5.94 | 1.50 | 1.74 | |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|---------------------------------|-------|----------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V950RPM | | ASHRAE32 Static | | | | | (Condensing temperature 35°C (+95°F)) | | | |
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 48 | 12 | 14 | 9 | 0.13 | 0.15 | 5.36 | 1.35 | 1.57 |
| -30 | (-22) | 70 | 18 | 20 | 11 | 0.14 | 0.22 | 6.56 | 1.65 | 1.92 |
| -25 | (-13) | 95 | 24 | 28 | 12 | 0.15 | 0.30 | 7.75 | 1.95 | 2.27 |
| -20 | (- 4) | 125 | 32 | 37 | 14 | 0.16 | 0.39 | 9.01 | 2.27 | 2.64 |
| -15 | (+ 5) | 161 | 41 | 47 | 16 | 0.17 | 0.51 | 10.42 | 2.62 | 3.05 |
| -10 | (+14) | 203 | 51 | 59 | 17 | 0.18 | 0.64 | 12.06 | 3.04 | 3.53 |
| -5 | (+23) | 252 | 63 | 74 | 18 | 0.18 | 0.80 | 14.01 | 3.53 | 4.11 |
| 0 | (+32) | 308 | 78 | 90 | 18 | 0.18 | 0.98 | 16.37 | 4.12 | 4.80 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V950RPM | | ASHRAE32 Static | | | (Condensing temperature 45°C (+113°F)) | | | | | |
|---------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 38 | 10 | 11 | 9 | 0.14 | 0.12 | 4.35 | 1.10 | 1.28 |
| -30 | (-22) | 56 | 14 | 16 | 10 | 0.15 | 0.17 | 5.30 | 1.34 | 1.55 |
| -25 | (-13) | 78 | 20 | 23 | 12 | 0.16 | 0.24 | 6.22 | 1.57 | 1.82 |
| -20 | (- 4) | 105 | 26 | 31 | 15 | 0.17 | 0.33 | 7.20 | 1.81 | 2.11 |
| -15 | (+ 5) | 139 | 35 | 41 | 17 | 0.18 | 0.44 | 8.31 | 2.09 | 2.44 |
| -10 | (+14) | 179 | 45 | 53 | 19 | 0.19 | 0.57 | 9.65 | 2.43 | 2.83 |
| -5 | (+23) | 227 | 57 | 67 | 20 | 0.20 | 0.72 | 11.29 | 2.84 | 3.31 |
| 0 | (+32) | 284 | 72 | 83 | 21 | 0.21 | 0.90 | 13.31 | 3.35 | 3.90 |

| TEST CONDITIONS: @220V950RPM | | ASHRAE32 Static | | | (Condensing temperature 55°C (+131°F)) | | | | | |
|---------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 31 | 8 | 9 | 9 | 0.14 | 0.10 | 3.46 | 0.87 | 1.01 |
| -30 | (-22) | 43 | 11 | 13 | 10 | 0.15 | 0.13 | 4.22 | 1.06 | 1.24 |
| -25 | (-13) | 61 | 15 | 18 | 13 | 0.16 | 0.19 | 4.94 | 1.24 | 1.45 |
| -20 | (- 4) | 85 | 21 | 25 | 15 | 0.17 | 0.27 | 5.70 | 1.44 | 1.67 |
| -15 | (+ 5) | 116 | 29 | 34 | 17 | 0.19 | 0.37 | 6.59 | 1.66 | 1.93 |
| -10 | (+14) | 155 | 39 | 45 | 20 | 0.21 | 0.49 | 7.69 | 1.94 | 2.25 |
| -5 | (+23) | 202 | 51 | 59 | 22 | 0.22 | 0.64 | 9.08 | 2.29 | 2.66 |
| 0 | (+32) | 258 | 65 | 76 | 24 | 0.23 | 0.82 | 10.84 | 2.73 | 3.18 |

| TEST CONDITIONS: @220V1300RPM | | ASHRAE32 Static | | | (Condensing temperature 35°C (+95°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 73 | 18 | 21 | 12 | 0.13 | 0.23 | 6.16 | 1.55 | 1.81 |
| -30 | (-22) | 99 | 25 | 29 | 14 | 0.14 | 0.31 | 7.02 | 1.77 | 2.06 |
| -25 | (-13) | 131 | 33 | 39 | 16 | 0.16 | 0.41 | 8.05 | 2.03 | 2.36 |
| -20 | (- 4) | 172 | 43 | 50 | 19 | 0.17 | 0.54 | 9.30 | 2.34 | 2.73 |
| -15 | (+ 5) | 220 | 56 | 65 | 20 | 0.18 | 0.69 | 10.80 | 2.72 | 3.16 |
| -10 | (+14) | 278 | 70 | 81 | 22 | 0.20 | 0.88 | 12.58 | 3.17 | 3.69 |
| -5 | (+23) | 345 | 87 | 101 | 23 | 0.21 | 1.09 | 14.68 | 3.70 | 4.30 |
| 0 | (+32) | 422 | 106 | 124 | 24 | 0.22 | 1.34 | 17.13 | 4.32 | 5.02 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V1300RPM | | ASHRAE32 Static | | | (Condensing temperature 45°C (+113°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 58 | 15 | 17 | 12 | 0.15 | 0.18 | 4.80 | 1.21 | 1.41 |
| -30 | (-22) | 81 | 20 | 24 | 15 | 0.17 | 0.25 | 5.58 | 1.41 | 1.63 |
| -25 | (-13) | 112 | 28 | 33 | 17 | 0.18 | 0.35 | 6.44 | 1.62 | 1.89 |
| -20 | (- 4) | 149 | 38 | 44 | 20 | 0.19 | 0.47 | 7.44 | 1.87 | 2.18 |
| -15 | (+ 5) | 195 | 49 | 57 | 23 | 0.21 | 0.61 | 8.59 | 2.16 | 2.52 |
| -10 | (+14) | 249 | 63 | 73 | 25 | 0.22 | 0.79 | 9.94 | 2.50 | 2.91 |
| -5 | (+23) | 313 | 79 | 92 | 27 | 0.24 | 0.99 | 11.52 | 2.90 | 3.38 |
| 0 | (+32) | 387 | 97 | 113 | 29 | 0.26 | 1.22 | 13.36 | 3.37 | 3.92 |

| TEST CONDITIONS: @220V1300RPM | | ASHRAE32 Static | | | (Condensing temperature 55°C (+131°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 50 | 13 | 15 | 12 | 0.16 | 0.16 | 4.14 | 1.04 | 1.21 |
| -30 | (-22) | 71 | 18 | 21 | 15 | 0.18 | 0.22 | 4.90 | 1.24 | 1.44 |
| -25 | (-13) | 99 | 25 | 29 | 18 | 0.19 | 0.31 | 5.67 | 1.43 | 1.66 |
| -20 | (- 4) | 134 | 34 | 39 | 21 | 0.21 | 0.42 | 6.48 | 1.63 | 1.90 |
| -15 | (+ 5) | 177 | 45 | 52 | 24 | 0.23 | 0.56 | 7.36 | 1.85 | 2.16 |
| -10 | (+14) | 228 | 57 | 67 | 27 | 0.25 | 0.72 | 8.34 | 2.10 | 2.44 |
| -5 | (+23) | 288 | 73 | 85 | 30 | 0.27 | 0.91 | 9.47 | 2.39 | 2.78 |
| 0 | (+32) | 359 | 90 | 105 | 33 | 0.29 | 1.14 | 10.78 | 2.72 | 3.16 |

| TEST CONDITIONS: @220V1600RPM | | ASHRAE32 Static | | | (Condensing temperature 35°C (+95°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 92 | 23 | 27 | 15 | 0.16 | 0.29 | 6.17 | 1.55 | 1.81 |
| -30 | (-22) | 123 | 31 | 36 | 17 | 0.18 | 0.39 | 7.02 | 1.77 | 2.06 |
| -25 | (-13) | 162 | 41 | 47 | 20 | 0.20 | 0.51 | 8.01 | 2.02 | 2.35 |
| -20 | (- 4) | 210 | 53 | 62 | 23 | 0.22 | 0.66 | 9.19 | 2.31 | 2.69 |
| -15 | (+ 5) | 268 | 68 | 79 | 25 | 0.23 | 0.84 | 10.59 | 2.67 | 3.10 |
| -10 | (+14) | 336 | 85 | 98 | 28 | 0.25 | 1.06 | 12.27 | 3.09 | 3.60 |
| -5 | (+23) | 415 | 104 | 121 | 29 | 0.25 | 1.31 | 14.28 | 3.60 | 4.18 |
| 0 | (+32) | 505 | 127 | 148 | 29 | 0.25 | 1.60 | 16.65 | 4.20 | 4.88 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V1600RPM | | ASHRAE32 Static | | | (Condensing temperature 45°C (+113°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 68 | 17 | 20 | 15 | 0.17 | 0.21 | 4.68 | 1.18 | 1.37 |
| -30 | (-22) | 98 | 25 | 29 | 18 | 0.19 | 0.31 | 5.58 | 1.41 | 1.64 |
| -25 | (-13) | 137 | 35 | 40 | 21 | 0.21 | 0.43 | 6.55 | 1.65 | 1.92 |
| -20 | (- 4) | 186 | 47 | 54 | 24 | 0.23 | 0.58 | 7.64 | 1.92 | 2.24 |
| -15 | (+ 5) | 245 | 62 | 72 | 27 | 0.25 | 0.77 | 8.88 | 2.24 | 2.60 |
| -10 | (+14) | 314 | 79 | 92 | 30 | 0.27 | 0.99 | 10.34 | 2.61 | 3.03 |
| -5 | (+23) | 395 | 100 | 116 | 33 | 0.29 | 1.25 | 12.05 | 3.04 | 3.53 |
| 0 | (+32) | 488 | 123 | 143 | 35 | 0.30 | 1.55 | 14.06 | 3.54 | 4.12 |

| TEST CONDITIONS: @220V1600RPM | | ASHRAE32 Static | | | (Condensing temperature 55°C (+131°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 59 | 15 | 17 | 15 | 0.17 | 0.18 | 3.87 | 0.98 | 1.14 |
| -30 | (-22) | 83 | 21 | 24 | 18 | 0.19 | 0.26 | 4.69 | 1.18 | 1.37 |
| -25 | (-13) | 118 | 30 | 35 | 22 | 0.21 | 0.37 | 5.50 | 1.39 | 1.61 |
| -20 | (- 4) | 162 | 41 | 48 | 26 | 0.23 | 0.51 | 6.36 | 1.60 | 1.86 |
| -15 | (+ 5) | 217 | 55 | 64 | 30 | 0.26 | 0.68 | 7.31 | 1.84 | 2.14 |
| -10 | (+14) | 284 | 72 | 83 | 34 | 0.29 | 0.90 | 8.40 | 2.12 | 2.46 |
| -5 | (+23) | 362 | 91 | 106 | 37 | 0.32 | 1.15 | 9.68 | 2.44 | 2.84 |
| 0 | (+32) | 453 | 114 | 133 | 41 | 0.34 | 1.44 | 11.19 | 2.82 | 3.28 |

| TEST CONDITIONS: @220V2000RPM | | ASHRAE32 Static | | | (Condensing temperature 35°C (+95°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 109 | 28 | 32 | 19 | 0.18 | 0.34 | 5.82 | 1.47 | 1.71 |
| -30 | (-22) | 151 | 38 | 44 | 22 | 0.21 | 0.47 | 6.82 | 1.72 | 2.00 |
| -25 | (-13) | 203 | 51 | 59 | 26 | 0.24 | 0.64 | 7.92 | 2.00 | 2.32 |
| -20 | (- 4) | 265 | 67 | 78 | 29 | 0.26 | 0.83 | 9.16 | 2.31 | 2.68 |
| -15 | (+ 5) | 339 | 85 | 99 | 32 | 0.28 | 1.07 | 10.61 | 2.67 | 3.11 |
| -10 | (+14) | 427 | 108 | 125 | 35 | 0.30 | 1.35 | 12.30 | 3.10 | 3.61 |
| -5 | (+23) | 531 | 134 | 156 | 37 | 0.31 | 1.68 | 14.30 | 3.60 | 4.19 |
| 0 | (+32) | 653 | 164 | 191 | 39 | 0.33 | 2.07 | 16.66 | 4.20 | 4.88 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V2000RPM | | ASHRAE32 Static | | | (Condensing temperature 45°C (+113°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 83 | 21 | 24 | 18 | 0.19 | 0.26 | 4.68 | 1.18 | 1.37 |
| -30 | (-22) | 126 | 32 | 37 | 22 | 0.22 | 0.39 | 5.69 | 1.44 | 1.67 |
| -25 | (-13) | 178 | 45 | 52 | 26 | 0.24 | 0.56 | 6.71 | 1.69 | 1.97 |
| -20 | (- 4) | 240 | 60 | 70 | 31 | 0.27 | 0.75 | 7.78 | 1.96 | 2.28 |
| -15 | (+ 5) | 314 | 79 | 92 | 35 | 0.29 | 0.99 | 8.95 | 2.26 | 2.62 |
| -10 | (+14) | 402 | 101 | 118 | 39 | 0.32 | 1.27 | 10.29 | 2.59 | 3.01 |
| -5 | (+23) | 505 | 127 | 148 | 43 | 0.35 | 1.60 | 11.83 | 2.98 | 3.47 |
| 0 | (+32) | 625 | 158 | 183 | 46 | 0.38 | 1.98 | 13.63 | 3.43 | 3.99 |

| TEST CONDITIONS: @220V2000RPM | | ASHRAE32 Static | | | (Condensing temperature 55°C (+131°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 72 | 18 | 21 | 18 | 0.19 | 0.23 | 3.86 | 0.97 | 1.13 |
| -30 | (-22) | 111 | 28 | 32 | 23 | 0.22 | 0.35 | 4.89 | 1.23 | 1.43 |
| -25 | (-13) | 158 | 40 | 46 | 27 | 0.25 | 0.49 | 5.84 | 1.47 | 1.71 |
| -20 | (- 4) | 214 | 54 | 63 | 32 | 0.28 | 0.67 | 6.74 | 1.70 | 1.97 |
| -15 | (+ 5) | 283 | 71 | 83 | 37 | 0.31 | 0.89 | 7.66 | 1.93 | 2.24 |
| -10 | (+14) | 365 | 92 | 107 | 42 | 0.34 | 1.15 | 8.63 | 2.18 | 2.53 |
| -5 | (+23) | 462 | 116 | 135 | 47 | 0.38 | 1.46 | 9.73 | 2.45 | 2.85 |
| 0 | (+32) | 575 | 145 | 168 | 52 | 0.43 | 1.82 | 10.99 | 2.77 | 3.22 |

| TEST CONDITIONS: @220V3000RPM | | ASHRAE32 Static | | | (Condensing temperature 35°C (+95°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 160 | 40 | 47 | 29 | 0.24 | 0.50 | 5.54 | 1.40 | 1.62 |
| -30 | (-22) | 225 | 57 | 66 | 34 | 0.28 | 0.70 | 6.58 | 1.66 | 1.93 |
| -25 | (-13) | 301 | 76 | 88 | 39 | 0.32 | 0.94 | 7.65 | 1.93 | 2.24 |
| -20 | (- 4) | 391 | 98 | 114 | 44 | 0.35 | 1.23 | 8.79 | 2.22 | 2.58 |
| -15 | (+ 5) | 498 | 125 | 146 | 49 | 0.39 | 1.57 | 10.07 | 2.54 | 2.95 |
| -10 | (+14) | 627 | 158 | 184 | 54 | 0.43 | 1.98 | 11.55 | 2.91 | 3.39 |
| -5 | (+23) | 780 | 197 | 228 | 59 | 0.47 | 2.47 | 13.28 | 3.35 | 3.89 |
| 0 | (+32) | 961 | 242 | 282 | 63 | 0.51 | 3.05 | 15.33 | 3.86 | 4.49 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V3000RPM | | ASHRAE32 Static | | | (Condensing temperature 45°C (+113°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 137 | 34 | 40 | 29 | 0.25 | 0.43 | 4.72 | 1.19 | 1.38 |
| -30 | (-22) | 202 | 51 | 59 | 35 | 0.29 | 0.63 | 5.74 | 1.45 | 1.68 |
| -25 | (-13) | 278 | 70 | 81 | 41 | 0.33 | 0.87 | 6.72 | 1.69 | 1.97 |
| -20 | (- 4) | 367 | 92 | 107 | 48 | 0.38 | 1.15 | 7.73 | 1.95 | 2.27 |
| -15 | (+ 5) | 473 | 119 | 139 | 54 | 0.42 | 1.49 | 8.82 | 2.22 | 2.58 |
| -10 | (+14) | 600 | 151 | 176 | 60 | 0.47 | 1.89 | 10.04 | 2.53 | 2.94 |
| -5 | (+23) | 752 | 189 | 220 | 65 | 0.52 | 2.38 | 11.46 | 2.89 | 3.36 |
| 0 | (+32) | 931 | 235 | 273 | 71 | 0.57 | 2.95 | 13.13 | 3.31 | 3.85 |

| TEST CONDITIONS: @220V3000RPM | | ASHRAE32 Static | | | (Condensing temperature 55°C (+131°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 105 | 26 | 31 | 28 | 0.25 | 0.33 | 3.79 | 0.95 | 1.11 |
| -30 | (-22) | 171 | 43 | 50 | 35 | 0.29 | 0.54 | 4.86 | 1.23 | 1.43 |
| -25 | (-13) | 247 | 62 | 72 | 42 | 0.34 | 0.77 | 5.84 | 1.47 | 1.71 |
| -20 | (- 4) | 336 | 85 | 98 | 50 | 0.39 | 1.06 | 6.79 | 1.71 | 1.99 |
| -15 | (+ 5) | 442 | 111 | 129 | 57 | 0.45 | 1.39 | 7.75 | 1.95 | 2.27 |
| -10 | (+14) | 568 | 143 | 167 | 65 | 0.50 | 1.79 | 8.80 | 2.22 | 2.58 |
| -5 | (+23) | 718 | 181 | 211 | 72 | 0.56 | 2.27 | 9.97 | 2.51 | 2.92 |
| 0 | (+32) | 896 | 226 | 263 | 79 | 0.62 | 2.84 | 11.35 | 2.86 | 3.32 |

| TEST CONDITIONS: @220V4500RPM | | ASHRAE32 Static | | | (Condensing temperature 35°C (+95°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 236 | 59 | 69 | 47 | 0.38 | 0.74 | 5.01 | 1.26 | 1.47 |
| -30 | (-22) | 305 | 77 | 89 | 52 | 0.40 | 0.95 | 5.94 | 1.50 | 1.74 |
| -25 | (-13) | 407 | 103 | 119 | 59 | 0.45 | 1.28 | 6.92 | 1.74 | 2.03 |
| -20 | (- 4) | 542 | 137 | 159 | 67 | 0.51 | 1.70 | 8.01 | 2.02 | 2.35 |
| -15 | (+ 5) | 711 | 179 | 208 | 76 | 0.58 | 2.24 | 9.25 | 2.33 | 2.71 |
| -10 | (+14) | 912 | 230 | 267 | 85 | 0.65 | 2.88 | 10.70 | 2.70 | 3.13 |
| -5 | (+23) | 1145 | 289 | 336 | 93 | 0.70 | 3.62 | 12.39 | 3.12 | 3.63 |
| 0 | (+32) | 1411 | 356 | 413 | 99 | 0.74 | 4.47 | 14.39 | 3.63 | 4.22 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V4500RPM | | ASHRAE32 Static | | | (Condensing temperature 45°C (+113°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 214 | 54 | 63 | 47 | 0.38 | 0.67 | 4.61 | 1.16 | 1.35 |
| -30 | (-22) | 286 | 72 | 84 | 53 | 0.41 | 0.90 | 5.47 | 1.38 | 1.60 |
| -25 | (-13) | 386 | 97 | 113 | 62 | 0.47 | 1.21 | 6.32 | 1.59 | 1.85 |
| -20 | (- 4) | 513 | 129 | 150 | 71 | 0.54 | 1.61 | 7.22 | 1.82 | 2.12 |
| -15 | (+ 5) | 667 | 168 | 196 | 81 | 0.62 | 2.10 | 8.21 | 2.07 | 2.41 |
| -10 | (+14) | 848 | 214 | 248 | 91 | 0.68 | 2.67 | 9.35 | 2.36 | 2.74 |
| -5 | (+23) | 1055 | 266 | 309 | 98 | 0.74 | 3.34 | 10.68 | 2.69 | 3.13 |
| 0 | (+32) | 1288 | 324 | 377 | 103 | 0.76 | 4.08 | 12.25 | 3.09 | 3.59 |

| TEST CONDITIONS: @220V4500RPM | | ASHRAE32 Static | | | (Condensing temperature 55°C (+131°F)) | | | | | |
|----------------------------------|-------|----------------------------|----------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 | (-31) | 165 | 42 | 48 | 43 | 0.35 | 0.52 | 3.79 | 0.96 | 1.11 |
| -30 | (-22) | 250 | 63 | 73 | 52 | 0.41 | 0.78 | 4.73 | 1.19 | 1.39 |
| -25 | (-13) | 356 | 90 | 104 | 63 | 0.48 | 1.12 | 5.60 | 1.41 | 1.64 |
| -20 | (- 4) | 483 | 122 | 142 | 75 | 0.57 | 1.52 | 6.46 | 1.63 | 1.89 |
| -15 | (+ 5) | 631 | 159 | 185 | 86 | 0.65 | 1.99 | 7.36 | 1.85 | 2.16 |
| -10 | (+14) | 799 | 201 | 234 | 96 | 0.72 | 2.52 | 8.34 | 2.10 | 2.44 |
| -5 | (+23) | 988 | 249 | 289 | 105 | 0.78 | 3.12 | 9.46 | 2.38 | 2.77 |
| 0 | (+32) | 1196 | 301 | 351 | 110 | 0.81 | 3.79 | 10.76 | 2.71 | 3.15 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|------------------------------|------|--------------------------|
| 1 Base plate | European Standard VES | | |
| 2 Tray holder | Yes | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Slanted 45° up + 15° to Back | | |
| 3.2 DISCHARGE | 4.9 +0.10/-0.05 | [mm] | (0.193" +0.004"/-0.002") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Slanted 0° up + 24° to Back | | |
| 3.3 PROCESS | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 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 | | |