

### COMPRESSOR DEFINITION

|                           |                    |
|---------------------------|--------------------|
| Designation               | EG 75HLR           |
| Nominal Voltage/Frequency | 220-240 V 50-60 Hz |
| Engineering Number        | 513700313          |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|  |                                   |                                   |           |
|--|-----------------------------------|-----------------------------------|-----------|
| 1 Type                                     | Hermetic reciprocating compressor |                                   |           |
| 2 Refrigerant                              | R-134a                            |                                   |           |
| 3 Nominal voltage and frequency            | 220-240 / 50-60                   | [ V / Hz ]                        |           |
| 4 Application type                         | Low-Medium Back Pressure          |                                   |           |
| 4.1 Evaporating temperature range          | -35°C to -5°C                     | (-31°F to 23°F)                   |           |
| 5 Motor type                               | RSIR-CSIR                         |                                   |           |
| 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)         | -                                 | 187 to 242 V                      |           |
| 8.2 LBP (43°C Ambient temperature)         | -                                 | 187 to 242 V                      |           |
| 8.3 HBP (32°C Ambient temperature)         | -                                 | -                                 | -         |
| 8.4 HBP (43°C Ambient temperature)         | -                                 | -                                 | -         |
| 9 Maximum condensing pressures/temperature |                                   |                                   |           |
| 9.1 Operating (gauge)                      | 16.2                              | [kgf/cm <sup>2</sup> ] (230 psig) | / °C - °F |
| 9.2 Peak (gauge)                           | 20.6                              | [kgf/cm <sup>2</sup> ] (293 psig) | / °C - °F |
| 10 Maximum winding temperature             | 130                               | [ °C ]                            |           |

### B - MECHANICAL DATA

|                               |               |  |
|-------------------------------|---------------|--|
| 1 Commercial designation      | 1/4           | [hp]                                       |
| 2 Displacement                | 6.76          | [cm <sup>3</sup> ] (0.413 cu.in)           |
| 2.1 Bore [mm]                 | 22.500        |  |
| 2.2 Stroke [mm]               | 17.000        |  |
| 3 Lubricant charge            | 280           | [ml] (9.47 fl.oz.)                         |
| 3.1 Lubricants approved       |               |  |
| 3.2 Lubricants type/viscosity | ESTER / ISO10 |  |
| 4 Weight (with oil charge)    | 11.2          | [kg] (24.69 lb.)                           |
| 5 Nitrogen charge             | 0.2 to 0.3    | [kgf/cm <sup>2</sup> ] (2.84 to 4.27 psig) |

### C - ELETRICAL DATA

|  |                                       |                                    |
|--|---------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 220-240 V 50-60 Hz 1 ~ (Single phase) |                                    |
| 2 Starting device type                       | Current Relay                         |                                    |
| 2.1 Starting device                          | 213516159/213516353                   |                                    |
| 3 Start capacitor                            | 64-77(220)                            | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | -                                     | [µF(VAC minimum)]                  |
| 5 Motor protection                           | 4TM319KFBYY-53                        |                                    |
| 6 Start winding resistance                   | 43.10                                 | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 10.35                                 | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50/60 Hz)     | 12.80/11.90                           | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50/60 Hz)  | 1.70/1.50                             | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50/60 Hz)   | -                                     | [A] - Measured according to UL 984 |
| 11 Approval boards certification             | IRAM - TUV - VDE                      |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |     |                                |                                  |  |                           |  |       |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |     | 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<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5% | Gas flow<br>rate<br>+/- 5%                         | EFFICIENCY RATE<br>+/- 7% |  |       |
| [Btu/h]                       | [kcal/h] | [W] | [W]                            | [A]                              | [kg/h]   | [Btu/Wh]                  | [kcal/Wh]                              | [W/W] |
| 684                           | 172      | 200 | 141                            | 1.08                             | 3.89   | 4.87                      | 1.23                                   | 1.43  |

|                               |          |     |                                |                                  |  |                           |  |       |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS:<br>@220V60Hz |          |     | 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<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5% | Gas flow<br>rate<br>+/- 5%                         | EFFICIENCY RATE<br>+/- 7% |  |       |
| [Btu/h]                       | [kcal/h] | [W] | [W]                            | [A]                              | [kg/h]   | [Btu/Wh]                  | [kcal/Wh]                              | [W/W] |
| 805                           | 203      | 236 | 161                            | 1.04                             | 4.57   | 5.00                      | 1.26                                   | 1.47  |

### E - PERFORMANCE - CURVES

|                               |                            |          |                    |                                |  |                            |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | ASHRAE32<br>Static |                                | (Condensing temperature 45°C (+113°F)) |                            |                           |           |       |
| Evaporating<br>temperature    | Cooling capacity<br>+/- 5% |          |                    | Power<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5%       | Gas flow<br>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)                     | 385                        | 97       | 113                | 96                             | 0.98                                   | 2.18                       | 4.01                      | 1.01      | 1.18  |
| -30 (-22)                     | 502                        | 127      | 147                | 112                            | 1.01                                   | 2.84                       | 4.52                      | 1.14      | 1.32  |
| -25 (-13)                     | 667                        | 168      | 195                | 129                            | 1.05                                   | 3.79                       | 5.19                      | 1.31      | 1.52  |
| -20 (- 4)                     | 878                        | 221      | 257                | 146                            | 1.09                                   | 4.99                       | 5.99                      | 1.51      | 1.76  |
| -15 (+ 5)                     | 1131                       | 285      | 331                | 163                            | 1.14                                   | 6.46                       | 6.90                      | 1.74      | 2.02  |
| -10 (+14)                     | 1425                       | 359      | 418                | 180                            | 1.20                                   | 8.17                       | 7.88                      | 1.99      | 2.31  |
| -5 (+23)                      | 1757                       | 443      | 515                | 198                            | 1.26                                   | 10.11                      | 8.91                      | 2.24      | 2.61  |

|                               |                            |          |                    |                                |  |                            |                           |           |       |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |                            |          | ASHRAE32<br>Static |                                | (Condensing temperature 55°C (+131°F)) |                            |                           |           |       |
| Evaporating<br>temperature    | Cooling capacity<br>+/- 5% |          |                    | Power<br>consumption<br>+/- 5% | Current<br>consumption<br>+/- 5%       | Gas flow<br>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)                     | 338                        | 85       | 99                 | 96                             | 0.98                                   | 1.91                       | 3.52                      | 0.89      | 1.03  |
| -30 (-22)                     | 460                        | 116      | 135                | 115                            | 1.02                                   | 2.61                       | 4.03                      | 1.02      | 1.18  |
| -25 (-13)                     | 619                        | 156      | 181                | 134                            | 1.06                                   | 3.51                       | 4.63                      | 1.17      | 1.36  |
| -20 (- 4)                     | 812                        | 205      | 238                | 154                            | 1.11                                   | 4.62                       | 5.28                      | 1.33      | 1.55  |
| -15 (+ 5)                     | 1036                       | 261      | 304                | 174                            | 1.18                                   | 5.91                       | 5.97                      | 1.50      | 1.75  |
| -10 (+14)                     | 1290                       | 325      | 378                | 194                            | 1.25                                   | 7.39                       | 6.65                      | 1.68      | 1.95  |
| -5 (+23)                      | 1570                       | 396      | 460                | 215                            | 1.32                                   | 9.03                       | 7.31                      | 1.84      | 2.14  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V50Hz |                            | ASHRAE32<br>Static |         |                             | (Condensing temperature 65°C (+149°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)                      | 255                | 64      | 75                          | 89                                      | 0.97                    | 1.44                      | 2.88   | 0.72     | 0.84      |
| -30                           | (-22)                      | 397                | 100     | 116                         | 113                                     | 1.01                    | 2.25                      | 3.46   | 0.87     | 1.01      |
| -25                           | (-13)                      | 564                | 142     | 165                         | 137                                     | 1.07                    | 3.20                      | 4.06   | 1.02     | 1.19      |
| -20                           | (- 4)                      | 754                | 190     | 221                         | 162                                     | 1.14                    | 4.29                      | 4.65   | 1.17     | 1.36      |
| -15                           | (+ 5)                      | 965                | 243     | 283                         | 187                                     | 1.22                    | 5.51                      | 5.18   | 1.31     | 1.52      |
| -10                           | (+14)                      | 1193               | 301     | 350                         | 213                                     | 1.31                    | 6.83                      | 5.65   | 1.42     | 1.65      |
| -5                            | (+23)                      | 1437               | 362     | 421                         | 239                                     | 1.41                    | 8.27                      | 6.00   | 1.51     | 1.76      |

| TEST CONDITIONS:<br>@220V60Hz |                            | 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] |
| -35                           | (-31)                      | 410                | 103     | 120                         | 102                                     | 0.87                    | 2.32                      | 4.00   | 1.01     | 1.17      |
| -30                           | (-22)                      | 572                | 144     | 168                         | 124                                     | 0.92                    | 3.24                      | 4.63   | 1.17     | 1.36      |
| -25                           | (-13)                      | 778                | 196     | 228                         | 147                                     | 1.00                    | 4.42                      | 5.32   | 1.34     | 1.56      |
| -20                           | (- 4)                      | 1030               | 260     | 302                         | 170                                     | 1.09                    | 5.86                      | 6.05   | 1.53     | 1.77      |
| -15                           | (+ 5)                      | 1332               | 336     | 390                         | 195                                     | 1.19                    | 7.60                      | 6.84   | 1.72     | 2.01      |
| -10                           | (+14)                      | 1685               | 425     | 494                         | 219                                     | 1.29                    | 9.66                      | 7.69   | 1.94     | 2.25      |
| -5                            | (+23)                      | 2093               | 527     | 613                         | 244                                     | 1.39                    | 12.04                     | 8.58   | 2.16     | 2.52      |

| TEST CONDITIONS:<br>@220V60Hz |                            | 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] |
| -35                           | (-31)                      | 352                | 89      | 103                         | 103                                     | 0.88                    | 1.99                      | 3.45   | 0.87     | 1.01      |
| -30                           | (-22)                      | 508                | 128     | 149                         | 125                                     | 0.93                    | 2.88                      | 4.05   | 1.02     | 1.19      |
| -25                           | (-13)                      | 707                | 178     | 207                         | 151                                     | 1.01                    | 4.01                      | 4.67   | 1.18     | 1.37      |
| -20                           | (- 4)                      | 952                | 240     | 279                         | 178                                     | 1.11                    | 5.42                      | 5.32   | 1.34     | 1.56      |
| -15                           | (+ 5)                      | 1244               | 313     | 364                         | 207                                     | 1.22                    | 7.10                      | 5.98   | 1.51     | 1.75      |
| -10                           | (+14)                      | 1587               | 400     | 465                         | 238                                     | 1.34                    | 9.09                      | 6.68   | 1.68     | 1.96      |
| -5                            | (+23)                      | 1983               | 500     | 581                         | 269                                     | 1.47                    | 11.41                     | 7.39   | 1.86     | 2.17      |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V60Hz |       | ASHRAE32<br>Static         |          |     | (Condensing temperature 65°C (+149°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) | 290                        | 73       | 85  | 96                                      | 0.85                          | 1.64                    | 3.02                      | 0.76      | 0.88  |
| -30                           | (-22) | 433                        | 109      | 127 | 122                                     | 0.91                          | 2.45                    | 3.55                      | 0.89      | 1.04  |
| -25                           | (-13) | 618                        | 156      | 181 | 152                                     | 1.01                          | 3.51                    | 4.07                      | 1.03      | 1.19  |
| -20                           | (- 4) | 847                        | 213      | 248 | 185                                     | 1.13                          | 4.82                    | 4.58                      | 1.15      | 1.34  |
| -15                           | (+ 5) | 1123                       | 283      | 329 | 221                                     | 1.28                          | 6.41                    | 5.09                      | 1.28      | 1.49  |
| -10                           | (+14) | 1448                       | 365      | 424 | 259                                     | 1.44                          | 8.30                    | 5.59                      | 1.41      | 1.64  |
| -5                            | (+23) | 1826                       | 460      | 535 | 300                                     | 1.61                          | 10.50                   | 6.08                      | 1.53      | 1.78  |

### F - EXTERNAL CHARACTERISTICS

|                         |                                       |      |                          |
|-------------------------|---------------------------------------|------|--------------------------|
| 1 Base plate            | European Standard EG/F/AMEM Version 2 |      |                          |
| 2 Tray holder           | No                                    |      |                          |
| 3 Connectors            |                                       |      |                          |
| 3.1 SUCTION             | 8.2 +0.12/-0.08                       | [mm] | (0.323" +0.005"/-0.003") |
| 3.1.1 Material          | Copper                                |      |                          |
| 3.1.2 Shape             | Slanted                               |      |                          |
| 3.2 DISCHARGE           | 4.94 +0.08/-0.08                      | [mm] | (0.194" +0.003"/-0.003") |
| 3.2.1 Material          | Copper                                |      |                          |
| 3.2.2 Shape             | Slanted                               |      |                          |
| 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             | Straight                              |      |                          |
| 3.4 Oil cooler (Copper) | No                                    | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs                          |      |                          |