

Model  
KLF8.6CNH

Sales code:  
106H3910

Compressor Data

|                            |                      |
|----------------------------|----------------------|
| Refrigerant(s)             | R290                 |
| Refr. charge - tech. limit | 200g / 7.05oz        |
| Weight                     | 9.70 kg / 21.38lbs   |
| Displacement               | 8.60 cm3 / 0.52cu.in |
| Compressors on pallet      | 100                  |



General – Configurations With KLF8.6CNH

|                         |                 |
|-------------------------|-----------------|
| -                       | Conf. 1         |
| Motor configuration     | CSIR            |
| Power supply (nominal)  | 115-120 V/60 Hz |
| Number of phases        | 1               |
| Voltage range           | 103-135 V       |
| Approvals               | UL              |
| Refrigerant             | R290            |
| Application             | LBP+MBP         |
| Hot gas defrost         | OK              |
| Long interval pull down | OK              |

Application Notes

- Electrical equipment is included and pre-assembled to compressor.
- Provision for PE Grounding is located at the PE Stamp on the compressor

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### Compressor Design

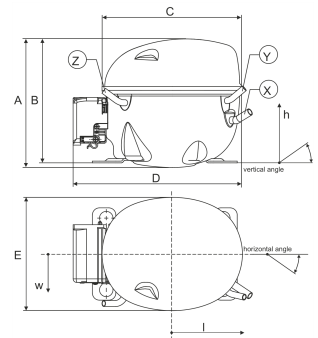
|                       |                                    |                         |               |
|-----------------------|------------------------------------|-------------------------|---------------|
| Oil type              | POE                                | Winding resistance main | 1.490 Ohm     |
| Oil viscosity         | 19,2cSt                            | Winding resistance aux  | 5.90 Ohm      |
| Oil quantity          | 239 / 8.08fl.oz                    | Max. winding temp.      | 125 °C        |
| Free gas volume comp. | 1,575 cm <sup>3</sup> / 53.26fl.oz | Max. discharge temp.    | 130°C / 266°F |
| Motor protection      | external                           |                         |               |

### Compressor Dimensions

#### Housing

|                   |                |
|-------------------|----------------|
| A Height          | 182mm / 7.17in |
| B Height          | 175mm / 6.89in |
| C Length shell    | 198mm / 7.80in |
| D Length w. cover | 238mm / 9.37in |
| E Width           | 160mm / 6.30in |

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| Connectors            | Suction X                    | Discharge Y                   | Process Z                      |
|-----------------------|------------------------------|-------------------------------|--------------------------------|
| Diameter [mm]         | øi 8.11–8.29 / 0.32–0.33in   | øi 6.41–6.59 / 0.25–0.26in    | øi 6.41–6.59 / 0.25–0.26in     |
| Material              | CU                           | CU                            | CU                             |
| Horizontal angle ±2°  | 35°                          | 13°                           | 0°                             |
| Vertical angle ±2°    | 30°                          | 40°                           | 145°                           |
| Position l/h/w [mm]   | 119/73/59 / 4.69/2.87/2.32in | 117/107/66 / 4.61/4.21/2.60in | -88/101/71 / -3.46/3.98/2.80in |
| Straight tube l. [mm] | 13.5 / 0.53in                | 13.5 / 0.53in                 | 13.5 / 0.53in                  |

### Mounting Accessories



#### Bolt joint



#### Snap-on



Dimensions in mm [in]

|                            | one comp. | multi pack |
|----------------------------|-----------|------------|
| Bolt joint   M6   ø16mm    | 118-1917  | 118-1918   |
| Bolt joint   ø1/4"   ø16mm | 118-1946  | -          |
| Bolt joint   ø1/4"   ø19mm | 118-1949  | -          |
| Snap-on   ø7,3   ø16mm     | 118-1947  | 118-1919   |

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Configuration 1

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### Configuration

|                                  |                           |
|----------------------------------|---------------------------|
| Motor configuration              | <b>CSIR</b>               |
| Power supply (nominal)           | <b>115-120 V/60 Hz 1~</b> |
| Refrigerant                      | <b>R290</b>               |
| Application                      | <b>LBP+MBP</b>            |
| Voltage range                    | <b>103-135 V</b>          |
| Approvals                        | <b>UL</b>                 |
| Starting device type             | <b>relay</b>              |
| Run capacitor                    | <b>-/-</b>                |
| Start capacitor                  | <b>240 µF</b>             |
| RLA (rated load amps / 1s/ U(N)) | <b>-/-A</b>               |

### Ambient/ machine room temperatures minimum /maximum

Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

### System Cooling

fan 3m/s

### Electrical Accessories / Wiring Diagram



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### Components (already pre-assembled)

**a5** current relay (T1141/L6-S6) 117U7078

**c** start capacitor (240µF) 117U5002

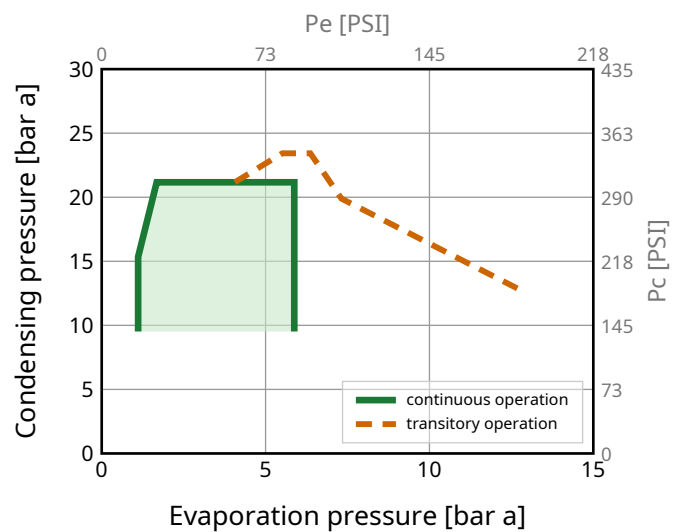
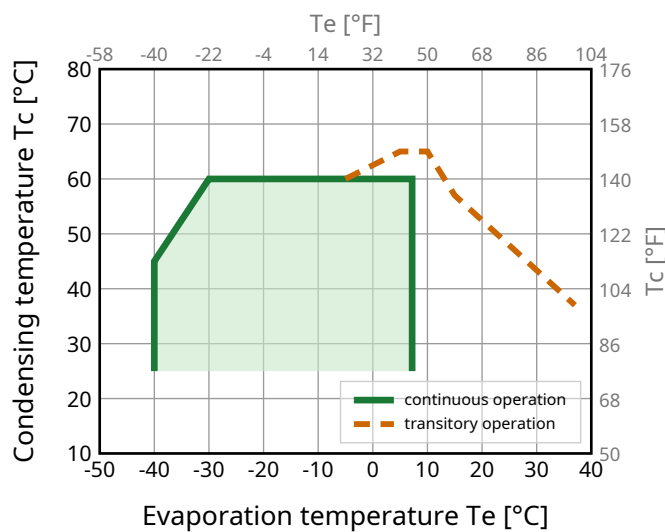
**b, d** cover + clamp + screws (5VA-compl.) 103N0600

### Alternative components

**b, d** 100x cover + clamp + screws (5VA) 103N2060

**b, d** cover + clamp + screws (5VA) in bag 103N1060

### Operation Pressure Range



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Standard Conditions

R290, 120 V/60 Hz, CSIR, fan 3m/s

| pe           | pc            | RGT          | Tliq         | Cooling capacity |         |          | COP   | EER      | P   | I    | m      |             |
|--------------|---------------|--------------|--------------|------------------|---------|----------|-------|----------|-----|------|--------|-------------|
| [°C]<br>[°F] | [°C]<br>[°F]  | [°C]<br>[°F] | [°C]<br>[°F] | [W]              | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [W] | [A]  | [kg/h] |             |
| -23.3<br>-10 | 54.4<br>129.9 | 32.2<br>90   | 32.2<br>90   | 567              | 1935    | 488      | 1.64  | 5.59     | 346 | 3.63 | 5.76   | ASHRAE LBP  |
| -25<br>-13   | 55<br>131     | 32<br>89.6   | 55<br>131    | 423              | 1443    | 364      | 1.27  | 4.35     | 332 | 3.52 | 5.30   | CECOMAF LBP |
| -35<br>-31   | 40<br>104     | 20<br>68     | 40<br>104    | 316              | 1077    | 271      | 1.32  | 4.51     | 239 | 2.86 | 3.62   | EN12900 LBP |
| -6.7<br>20   | 54.4<br>129.9 | 35<br>95     | 46.1<br>115  | 974              | 3322    | 837      | 2.04  | 6.95     | 478 | 4.77 | 11.15  | ASHRAE MBP  |
| -10<br>14    | 55<br>131     | 32<br>89.6   | 55<br>131    | 781              | 2665    | 672      | 1.71  | 5.83     | 457 | 4.58 | 9.93   | CECOMAF MBP |
| -10<br>14    | 45<br>113     | 20<br>68     | 45<br>113    | 856              | 2919    | 736      | 2.12  | 7.23     | 404 | 4.11 | 10.53  | EN12900 MBP |

Performance Tables

R290, 120 V/60 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

| pe   |      | Cooling capacity |         |          | COP   | EER      | P   | I    | m      |
|------|------|------------------|---------|----------|-------|----------|-----|------|--------|
| [°C] | [°F] | [W]              | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [W] | [A]  | [kg/h] |
| -40  | -40  | 219              | 746     | 188      | 1.08  | 3.68     | 202 | 2.65 | 2.46   |
| -30  | -22  | 390              | 1330    | 335      | 1.40  | 4.76     | 279 | 3.13 | 4.41   |
| -20  | -4   | 609              | 2077    | 523      | 1.75  | 5.98     | 348 | 3.64 | 6.92   |
| -10  | 14   | 890              | 3035    | 765      | 2.20  | 7.52     | 404 | 4.11 | 10.21  |
| 0    | 32   | 1246             | 4252    | 1072     | 2.80  | 9.55     | 445 | 4.48 | 14.49  |
| 7.2  | 45   | 1558             | 5315    | 1340     | 3.36  | 11.46    | 464 | 4.65 | 18.32  |

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

|     |     |      |      |      |      |      |     |      |       |
|-----|-----|------|------|------|------|------|-----|------|-------|
| -40 | -40 | 165  | 563  | 142  | 0.86 | 2.92 | 193 | 2.59 | 2.05  |
| -30 | -22 | 328  | 1120 | 282  | 1.15 | 3.91 | 287 | 3.19 | 4.10  |
| -20 | -4  | 529  | 1805 | 455  | 1.41 | 4.80 | 376 | 3.87 | 6.66  |
| -10 | 14  | 781  | 2665 | 672  | 1.71 | 5.83 | 457 | 4.58 | 9.93  |
| 0   | 32  | 1099 | 3749 | 945  | 2.08 | 7.10 | 528 | 5.25 | 14.17 |
| 7.2 | 45  | 1376 | 4695 | 1183 | 2.41 | 8.23 | 570 | 5.67 | 17.98 |