

Model

| | | | | |
|-------------|------------------|------------------|-------------|-----------------|
| Designation | KLF7.7CNH | 115-127V/60Hz 1~ | Sales code: | 106H3812 |
|-------------|------------------|------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|--------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R290 |
| Oil viscosity | 19,2cST | Displacement | 7,7cm ³ / 0,47cu.in |
| Oil quantity | 162cm ³ / 5,5fl.oz | Compressors on pallet | 100 |
| Refr. charge - tech. limit | 200g / 7,1oz | | |
| Free gas volume comp. | 1575cm ³ / 53,3fl.oz | | |
| Weight | 9,7kg / 21,4lbs | | |
| Motor protection | external | | |
| Winding resistance main | 1,4Ω (at 25°C) | | |
| Winding resistance aux | 5,9Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 130°C / 266°F | | |



General - Configurations with KLF7.7CNH

| | |
|------------------------|---|
| | Conf. 1 |
| Motorconfiguration | CSIR |
| Power supply (nominal) | 115-127V/60Hz |
| Number of phases | 1 |
| Voltage range | 95-140V |
| Approvals | UL |
| Starting torque | HST |
| Note | Electrical equipment is included and pre-assembled to compressor. |

Applications with KLF7.7CNH

| | |
|-------------------------|----------------|
| | Conf. 1 |
| Refrigerant | R290 |
| Application | LBP+MBP |
| System cooling | fan 3m/s |
| Hot gas defrost | OK |
| Long interval pull down | OK |

Electrical data - Configurations with KLF7.7CNH

| | |
|------------------------------|----------------|
| | Conf. 1 |
| Starting device type | relay |
| Run capacitor | -/- |
| Start capacitor | 240μF |
| LRA (locked rotor amps / 4s) | 37A |
| RLA (rated load amps / 1s) | |
| Cut in current | |

Model

Designation

KLF7.7CNH

115-127V/60Hz 1~

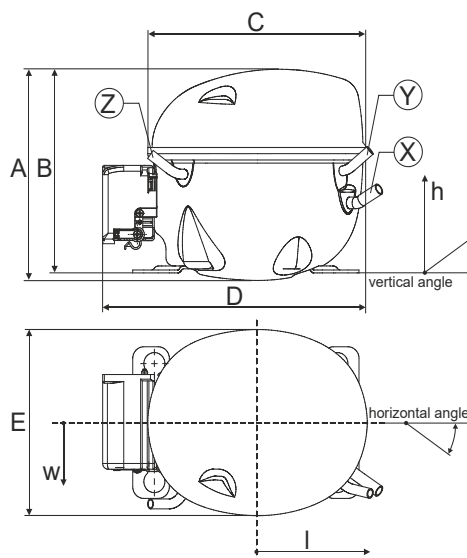
Sales code:

106H3812

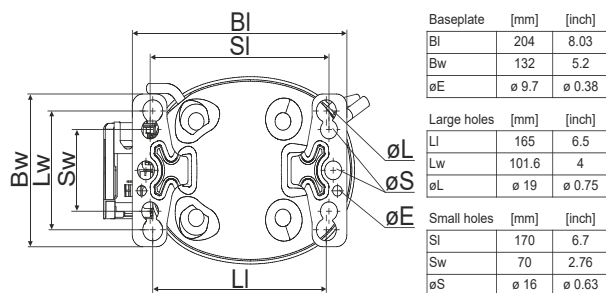
Compressor dimensions

| Housing | A Height | 182mm / 7,17in |
|---------|-------------------|----------------|
| | B Height | 175mm / 6,89in |
| | C Length shell | 198mm / 7,8in |
| | D Length w. cover | 238mm / 9,37in |
| | E Width | 160mm / 6,3in |

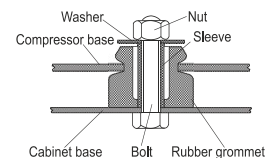
| Connectors | | Suction | Discharge | Process |
|------------------|----------------------------|--------------|--------------|--------------|
| | | X | Y | Z |
| Diameter | [mm] | øi 8,11-8,29 | øi 6,41-6,59 | øi 6,41-6,59 |
| | (i:inside, o:outside) [in] | øi 0,32-0,33 | øi 0,25-0,26 | øi 0,25-0,26 |
| Material | | copper | copper | copper |
| Horizontal angle | ±2° | 35° | 13° | 0° |
| Vertical angle | ±2° | 30° | 40° | 145° |
| Position l/h/w | [mm] | 120/72/62 | 112/106/62 | -97/102/70 |
| | [in] | 4,7/2,8/2,4 | 4,4/4,2/2,4 | -3,8/4/2,8 |
| Straight tube l. | [mm] | 14 | 14 | 14 |
| | [in] | 0,5 | 0,5 | 0,5 |



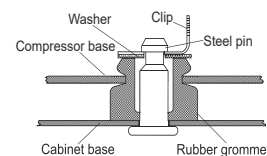
Compressor fixation



Bolt joint



Snap-on



Mounting accessories

| | 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 |

Application notes

Provision for PE Grounding is located at the PE Stamp on the compressor

Compressor comes on a wooden pallet

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

Model

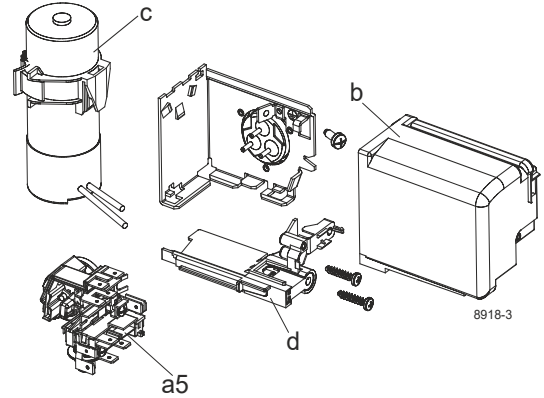
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Configuration

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|------------------------|------------------|
| Motorconfiguration | CSIR |
| Power supply (nominal) | 115-127V/60Hz 1~ |
| Refrigerant | R290 |
| Application | LBP+MBP |
| Voltage range | 95-140V |
| Starting torque | HST |
| Approvals | UL |

Electrical accessories / wiring diagram

CSIR

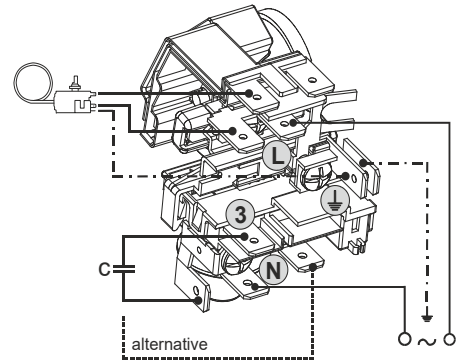
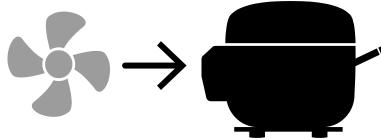


Ambient/ machine room temperatures minimum /maximum

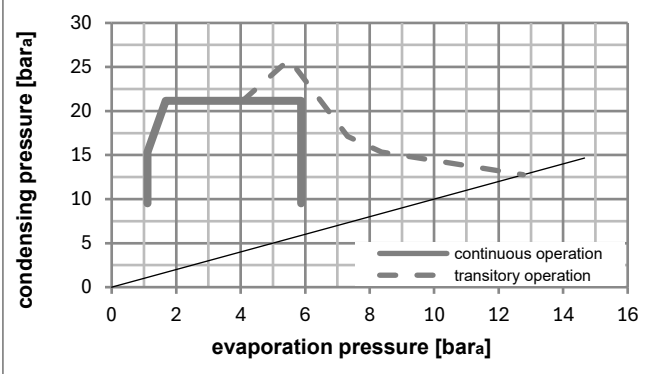
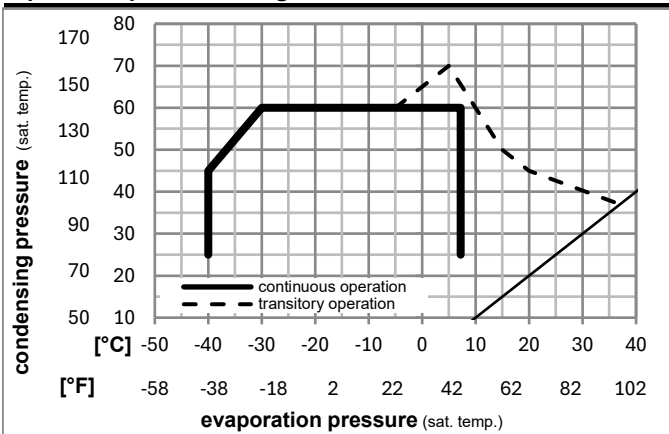
| | |
|---------------------------------|------------------------|
| Ambient temperature range: | 10 - 43°C / 50 - 110°F |
| Machine room temperature range: | 10 - 48°C / 50 - 119°F |

Compressor cooling: fan 3m/s

Compressor with external protector. For max. operation envelope cooling on protector.



Operation pressure range



Components (already pre-assembled)

| | | |
|------|------------------------------------|----------|
| a5 | current relay TY (T1141/L6-S6) | 117U7078 |
| c | start capacitor (240µF) | 117U5002 |
| b, d | cover + clamp + screws(5VA) in bag | 103N1060 |

Alternative components

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

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Optimization + standard conditions

R290, 115V/60Hz, CSIR, fan 3m/s, UL

| | | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | Return gas temp. | | | Liquid temp. | | | Cooling capacity | | | COP | EER | Power consumption | | | |
|------|------|---|------|------|------|--|---------|----------|------------------|----------|-----------|--------------|------|----------------|------------------|------|--|-----|-----|-------------------|-------------|--|--|
| | | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1 | I | Ref. mass flow | | | | | | | | | |
| [°C] | [°F] | [°C] | [°F] | [°C] | [°F] | | | | | | | [W] | [A] | [kg/h] | | | | | | | | | |
| -23 | -10 | 54 | 130 | 32 | 90 | 32 | 90 | 475,1 | 1622 | 408,9 | 1,62 | 5,53 | 1,39 | 293,6 | 3,44 | 4,81 | | | | | ASHRAE LBP | | |
| -25 | -13 | 55 | 131 | 32 | 90 | 55 | 131 | 356,6 | 1218 | 306,9 | 1,26 | 4,32 | 1,09 | 282,1 | 3,36 | 4,44 | | | | | cecomaf LBP | | |
| -35 | -31 | 40 | 104 | 20 | 68 | 40 | 104 | 267,4 | 913 | 230,1 | 1,23 | 4,20 | 1,06 | 217,4 | 2,94 | 3,05 | | | | | EN12900 LBP | | |
| -7 | 20 | 54 | 130 | 35 | 95 | 46 | 115 | 842,2 | 2876 | 724,8 | 2,06 | 7,02 | 1,77 | 409,7 | 4,31 | 9,61 | | | | | ASHRAE MBP | | |
| -10 | 14 | 55 | 131 | 32 | 90 | 55 | 131 | 668,0 | 2281 | 574,9 | 1,72 | 5,86 | 1,48 | 389,3 | 4,15 | 8,45 | | | | | cecomaf MBP | | |
| -10 | 14 | 45 | 113 | 20 | 68 | 45 | 113 | 750,4 | 2563 | 645,8 | 2,08 | 7,12 | 1,79 | 359,9 | 3,92 | 9,21 | | | | | EN12900 MBP | | |

Performance tables

R290, 115V/60Hz, CSIR, fan 3m/s, UL

| | pe | | Cooling capacity | | | COP | EER | P1 | I | m | |
|------------------|------|------|------------------|---------|----------|-------|----------|-----------|-------|------|--------|
| | [°C] | [°F] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] |
| [°C / °F] | -40 | -40 | 203,2 | 694 | 174,9 | 1,03 | 3,52 | 0,89 | 197,3 | 2,84 | 2,27 |
| cond. pressure | -34 | -30 | 269,8 | 921 | 232,2 | 1,20 | 4,10 | 1,03 | 224,9 | 2,98 | 3,02 |
| pc= 45/113 | -23 | -10 | 453,5 | 1549 | 390,3 | 1,58 | 5,41 | 1,36 | 286,6 | 3,38 | 5,12 |
| return gas temp. | -15 | 5 | 643,1 | 2196 | 553,5 | 1,93 | 6,59 | 1,66 | 333,5 | 3,72 | 7,32 |
| RGT= 32/90 | -4 | 25 | 977,1 | 3337 | 840,9 | 2,51 | 8,58 | 2,16 | 388,9 | 4,14 | 11,27 |
| liquid temp | 0 | 32 | 1118,5 | 3820 | 962,6 | 2,76 | 9,44 | 2,38 | 404,7 | 4,27 | 12,97 |
| Tliq= 45/113 | 7,2 | 45 | 1417,8 | 4842 | 1220,2 | 3,32 | 11,34 | 2,86 | 427,0 | 4,45 | 16,66 |
| [°C / °F] | -40 | -40 | 175,9 | 601 | 151,4 | 0,95 | 3,25 | 0,82 | 185,0 | 2,76 | 2,17 |
| cond. pressure | -34 | -30 | 229,9 | 785 | 197,9 | 1,05 | 3,60 | 0,91 | 218,3 | 2,94 | 2,84 |
| pc= 55/131 | -23 | -10 | 384,1 | 1312 | 330,5 | 1,31 | 4,46 | 1,12 | 294,0 | 3,44 | 4,79 |
| return gas temp | -15 | 5 | 547,4 | 1869 | 471,1 | 1,55 | 5,28 | 1,33 | 354,0 | 3,88 | 6,88 |
| RGT= 32/90 | -4 | 25 | 840,9 | 2872 | 723,7 | 1,95 | 6,68 | 1,68 | 430,2 | 4,48 | 10,73 |
| liquid temp | 0 | 32 | 966,6 | 3301 | 831,9 | 2,13 | 7,27 | 1,83 | 454,2 | 4,67 | 12,42 |
| Tliq= 55/131 | 7,2 | 45 | 1235,0 | 4218 | 1062,8 | 2,51 | 8,56 | 2,16 | 492,9 | 4,99 | 16,09 |