

Single Pack KLF7.7CNH 115-127V 60Hz CSIR

Single pack code number: **195B4728**

| Position | Title | Code | Amount |
|----------|---|----------|--------|
| 1 | Compressor KLF7.7CNH | 106H3802 | 1 |
| 2 | KL accessories | 103N1060 | 1 |
| 3 | Starting capacitor (240 μ F 125V, 6.3mm) | 117U5002 | 1 |
| 4 | Starting relay (QLZ-17.3A, overload protector T1141/L6) | 117U7078 | 1 |
| 5 | Bolt joint for one compressor M6 \varnothing 16mm | 118-1917 | 1 |

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Model

| | | | | |
|-------------|------------------|------------------|-------------|-----------------|
| Designation | KLF7.7CNH | 115-127V/60Hz 1~ | Sales code: | 106H3802 |
|-------------|------------------|------------------|-------------|-----------------|

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 | Conf. 2 |
|------------------------|----------------|----------------|
| Motorconfiguration | CSIR | RSCR |
| Power supply (nominal) | 115-127V/60Hz | 115-127V/60Hz |
| Number of phases | 1 | 1 |
| Voltage range | 95-140V | 95-140V |
| Approvals | UL | UL |
| Starting torque | HST | LST |
| Note | - / - | |

Applications with KLF7.7CNH

| | Conf. 1 | Conf. 2 |
|-------------------------|----------------|----------------|
| Refrigerant | R290 | R290 |
| Application | LBP+MBP | LBP+MBP |
| System cooling | fan 3m/s | fan 3m/s |
| Hot gas defrost | OK | OK |
| Long interval pull down | OK | OK |

Electrical data - Configurations with KLF7.7CNH

| | Conf. 1 | Conf. 2 |
|------------------------------------|----------------|----------------|
| Starting device type | relay | PTC |
| Run capacitor | -/- | 15μF |
| Start capacitor | 240μF | -/- |
| LRA (locked rotor amps / 4s/ U(N)) | 35,6A | 35,6A |
| RLA (rated load amps / 1s/ U(N)) | 4,9A | 4,9A |
| Cut in current (U(N)) | | |

Model

| | | | | |
|-------------|------------------|------------------|-------------|-----------------|
| Designation | KLF7.7CNH | 115-127V/60Hz 1~ | Sales code: | 106H3802 |
|-------------|------------------|------------------|-------------|-----------------|

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] | 119/73/59 | 117/107/66 | -88/101/71 |
| | [in] | 4,7/2,9/2,3 | 4,6/4,2/2,6 | -3,5/4/2,8 |
| 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

Model

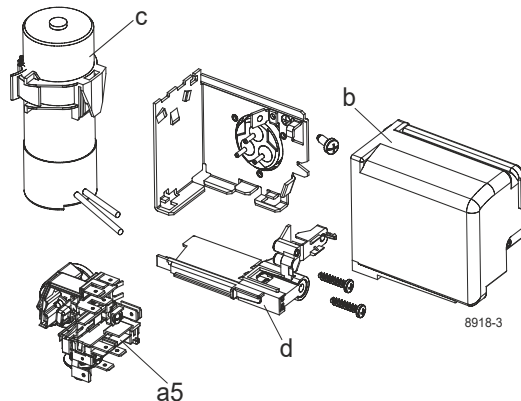
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|-------------|------------------|----------------------|----------------|-------------|-----------------|
| Designation | KLF7.7CNH | 115-127V/60Hz | Conf. 1 | Sales code: | 106H3802 |
|-------------|------------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| 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

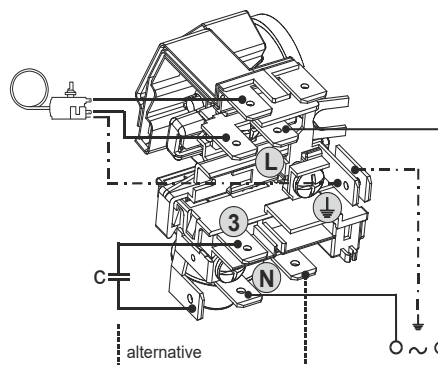


Ambient/ machine room temperatures minimum /maximum

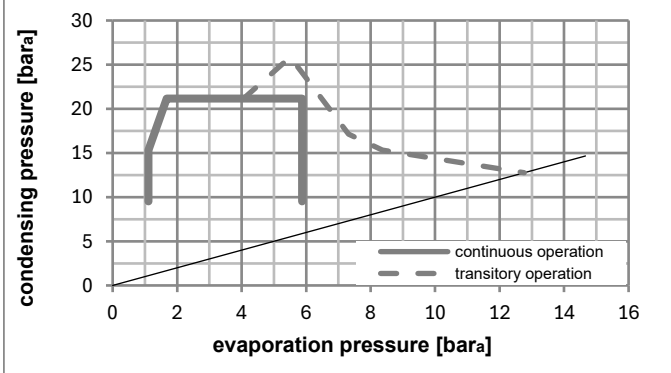
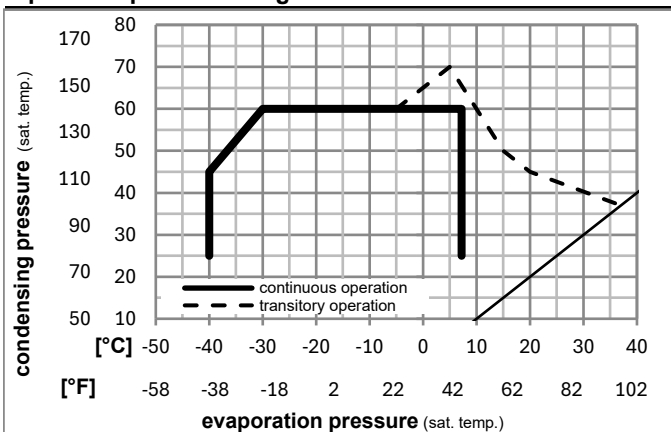
Ambient temperature range: 10 - 43°C / 50 - 110°F

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 3m/s



Operation pressure range



Components

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

Alternative components

| | | |
|------|------------------------------------|----------|
| b, d | 100x cover + clamp + screws(5VA) | 103N2060 |
| b, d | cover + clamp + screws(5VA-compl.) | 103N0600 |

Model

Designation **KLF7.7CNH** **115-127V/60Hz** Conf. 1 Sales code: **106H3802**

Optimization + standard conditions

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

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

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] | | | | | | |
| [°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 |

Model

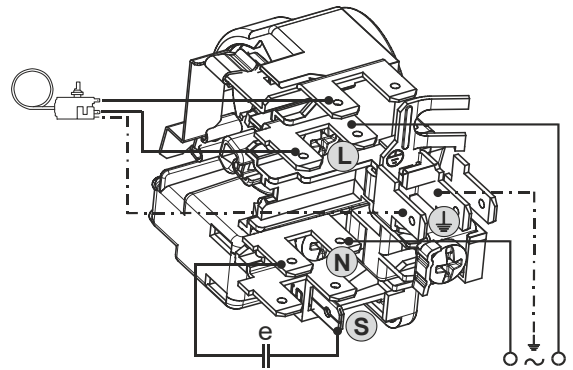
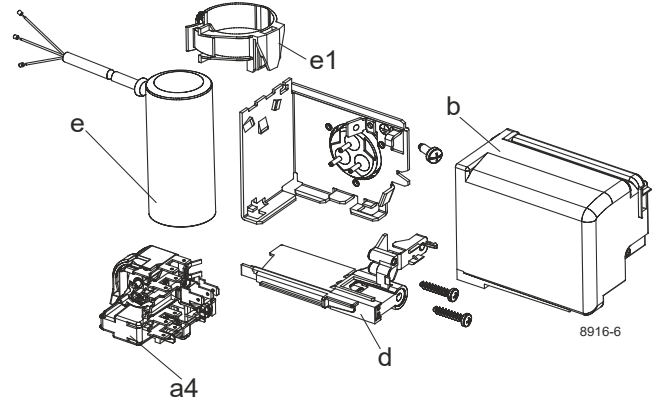
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|-------------|------------------|----------------------|----------------|-------------|-----------------|
| Designation | KLF7.7CNH | 115-127V/60Hz | Conf. 2 | Sales code: | 106H3802 |
|-------------|------------------|----------------------|----------------|-------------|-----------------|

Configuration

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

Electrical accessories / wiring diagram

RSCR



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 |

Operation pressure range



Components

| | | |
|------|------------------------------------|----------|
| a4 | DLS 6 (PTC,6.3mm, T1141/L6 - S6) | 103N0214 |
| e | run capacitor (15μF, 6,3mm) | 117-7153 |
| b, d | cover + clamp + screws(5VA) in bag | 103N1060 |
| e1 | retaining clamp | 103N0535 |

Alternative components

| | | |
|------|------------------------------------|----------|
| b, d | 100x cover + clamp + screws(5VA) | 103N2060 |
| b, d | cover + clamp + screws(5VA-compl.) | 103N0600 |

Model

Designation **KLF7.7CNH** **115-127V/60Hz** Conf. 2 Sales code: **106H3802**

Optimization + standard conditions

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

| | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | Return gas temp. | Liquid temp. | Cooling capacity | COP | EER | Power consumption | | | Ref. mass flow |
|------|---|-----|-----|------|--|---------|----------|------------------|--------------|------------------|-------|------|-------------------|-------------|---|----------------|
| | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | | | | | | P1 | I | m | |
| [°C] | | | | | | | | | | | | | | | | |
| [°F] | | | | | | | | | | | | | | | | |
| | -23 | 54 | 32 | 32 | 478,7 | 1635 | 412,0 | 1,71 | 5,85 | 1,47 | 279,6 | 3,11 | 4,85 | ASHRAE LBP | | |
| | -10 | 130 | 90 | 90 | | | | | | | | | | | | |
| | -25 | 55 | 32 | 55 | 359,4 | 1228 | 309,3 | 1,33 | 4,54 | 1,14 | 270,4 | 3,04 | 4,48 | cecomaf LBP | | |
| | -13 | 131 | 90 | 131 | | | | | | | | | | | | |
| | -35 | 40 | 20 | 40 | 274,5 | 937 | 236,2 | 1,29 | 4,40 | 1,11 | 213,2 | 2,67 | 3,14 | EN12900 LBP | | |
| | -31 | 104 | 68 | 104 | | | | | | | | | | | | |
| | -7 | 54 | 35 | 46 | 848,5 | 2898 | 730,2 | 2,22 | 7,58 | 1,91 | 382,5 | 3,91 | 9,68 | ASHRAE MBP | | |
| | 20 | 130 | 95 | 115 | | | | | | | | | | | | |
| | -10 | 55 | 32 | 55 | 675,3 | 2306 | 581,2 | 1,85 | 6,31 | 1,59 | 365,3 | 3,77 | 8,54 | cecomaf MBP | | |
| | 14 | 131 | 90 | 131 | | | | | | | | | | | | |
| | -10 | 45 | 20 | 45 | 761,5 | 2601 | 655,3 | 2,18 | 7,44 | 1,87 | 349,6 | 3,65 | 9,35 | EN12900 MBP | | |
| | 14 | 113 | 68 | 113 | | | | | | | | | | | | |

Performance tables

R290, 115V/60Hz, RSCR, 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 | 200,0 | 683 | 172,1 | 1,07 | 3,66 | 0,92 | 186,4 | 2,50 | 2,24 |
| cond. pressure | -34 | -30 | 269,2 | 919 | 231,6 | 1,25 | 4,27 | 1,08 | 215,0 | 2,67 | 3,02 |
| pc= 45/113 | -23 | -10 | 459,2 | 1568 | 395,2 | 1,65 | 5,65 | 1,42 | 277,6 | 3,10 | 5,19 |
| return gas temp. | -15 | 5 | 653,0 | 2230 | 562,0 | 2,02 | 6,88 | 1,73 | 324,1 | 3,45 | 7,43 |
| RGT= 32/90 | -4 | 25 | 989,5 | 3379 | 851,6 | 2,63 | 8,97 | 2,26 | 376,9 | 3,87 | 11,41 |
| liquid temp | 0 | 32 | 1130,4 | 3860 | 972,8 | 2,89 | 9,87 | 2,49 | 391,2 | 3,98 | 13,11 |
| Tliq= 45/113 | 7,2 | 45 | 1426,4 | 4872 | 1227,6 | 3,48 | 11,89 | 3,00 | 409,8 | 4,13 | 16,76 |
| [°C / °F] | -40 | -40 | 166,6 | 569 | 143,4 | 0,91 | 3,11 | 0,78 | 183,1 | 2,47 | 2,05 |
| cond. pressure | -34 | -30 | 225,6 | 770 | 194,1 | 1,06 | 3,62 | 0,91 | 212,9 | 2,64 | 2,79 |
| pc= 55/131 | -23 | -10 | 387,9 | 1325 | 333,9 | 1,38 | 4,71 | 1,19 | 281,0 | 3,12 | 4,84 |
| return gas temp | -15 | 5 | 554,5 | 1894 | 477,2 | 1,66 | 5,66 | 1,43 | 334,4 | 3,52 | 6,97 |
| RGT= 32/90 | -4 | 25 | 846,2 | 2890 | 728,3 | 2,11 | 7,22 | 1,82 | 400,3 | 4,05 | 10,80 |
| liquid temp | 0 | 32 | 969,1 | 3310 | 834,0 | 2,31 | 7,88 | 1,98 | 420,2 | 4,22 | 12,45 |
| Tliq= 55/131 | 7,2 | 45 | 1228,6 | 4196 | 1057,3 | 2,73 | 9,31 | 2,35 | 450,5 | 4,47 | 16,01 |



KL Compressors





KL Compressors



Service/Repair – R290



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