

Single Pack KLF4.8CNH 115-127V 60Hz CSIR

Single pack code number: **195B4709**

| Position | Title | Code | Amount |
|----------|---|----------|--------|
| 1 | Compressor KLF4.8CNH | 106H3500 | 1 |
| 2 | KL accessories | 103N1060 | 1 |
| 3 | Starting capacitor (240 μ F 125V, 6.3mm) | 117U5002 | 1 |
| 4 | Starting relay (QLZ-13.6A, overload protector T1217/L6) | 117U7072 | 1 |
| 5 | Bolt joint for one compressor M6 \varnothing 16mm | 118-1917 | 1 |

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Model

| | | | | |
|-------------|------------------|------------------|-------------|-----------------|
| Designation | KLF4.8CNH | 115-127V/60Hz 1~ | Sales code: | 106H3500 |
|-------------|------------------|------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|--------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R290 |
| Oil viscosity | 10,4cSt | Displacement | 4,8cm ³ / 0,29cu.in |
| Oil quantity | 174cm ³ / 5,9fl.oz | Compressors on pallet | 100 |
| Refr. charge - tech. limit | 200g / 7,1oz | | |
| Free gas volume comp. | 1615cm ³ / 54,6fl.oz | | |
| Weight | 9,4kg / 20,7lbs | | |
| Motor protection | external | | |
| Winding resistance main | 2Ω (at 25°C) | | |
| Winding resistance aux | 8,5Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 130°C / 266°F | | |



General - Configurations with KLF4.8CNH

| | 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, CCC | UL, CCC |
| Starting torque | HST | LST |
| Note | - / - | |

Applications with KLF4.8CNH

| | 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 KLF4.8CNH

| | Conf. 1 | Conf. 2 |
|------------------------------------|----------------|----------------|
| Starting device type | relay | PTC |
| Run capacitor | -/- | 15μF |
| Start capacitor | 240μF | -/- |
| LRA (locked rotor amps / 4s/ U(N)) | 29,8A | 29,8A |
| RLA (rated load amps / 1s/ U(N)) | 4,3A | 4,3A |
| Cut in current (U(N)) | 27,5A | 30,1A |

Model

Designation

KLF4.8CNH

115-127V/60Hz 1~

Sales code:

106H3500

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 |



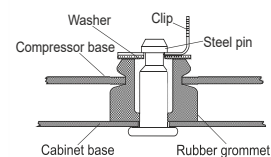
Compressor fixation



Bolt joint



Snap-on



Mounting accessories

| 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

Model

| | | | | | |
|-------------|------------------|----------------------|----------------|-------------|-----------------|
| Designation | KLF4.8CNH | 115-127V/60Hz | Conf. 1 | Sales code: | 106H3500 |
|-------------|------------------|----------------------|----------------|-------------|-----------------|

Configuration

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

Electrical accessories / wiring diagram

CSIR

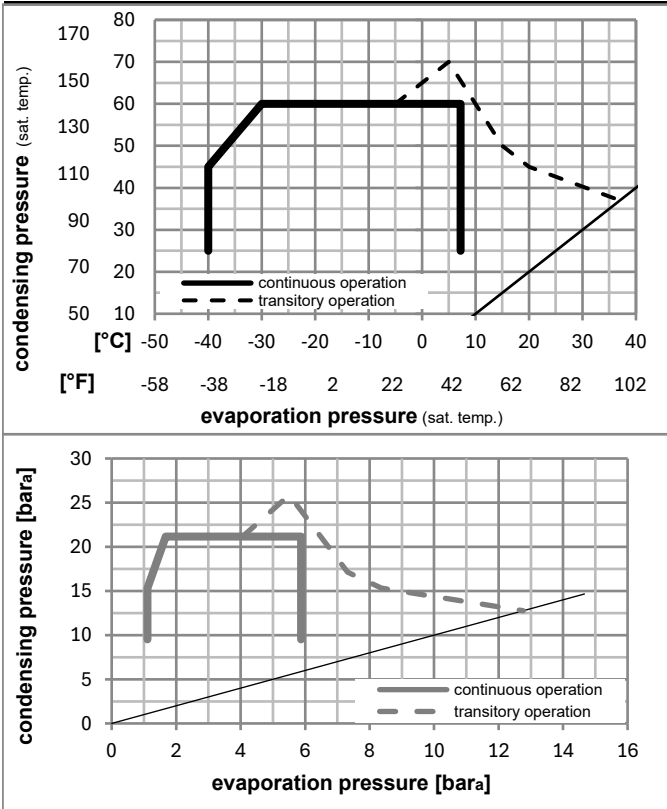


Ambient/ machine room temperatures minimum /maximum

| | |
|---------------------------------|------------------------|
| 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 (T1217/L6-S5) | 117U7072 |
| 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 **KLF4.8CNH** **115-127V/60Hz** Conf. 1 Sales code: **106H3500**

Optimization + standard conditions

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

| | Evaporating pressure (saturation temperature) | | | | Cooling capacity | | | COP | EER | P1 | Power consumption | | ASHRAE LBP | |
|--|---|------|------|------|------------------|---------|----------|-------|----------|-----------|-------------------|------|------------|-------------|
| | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | | | | I | m | | |
| | [°C] | [°F] | [°C] | [°F] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | |
| | -23 | 54 | 32 | 32 | 278,1 | 950 | 239,3 | 1,55 | 5,31 | 1,34 | 178,9 | 2,78 | 2,82 | ASHRAE LBP |
| | -10 | 130 | 90 | 90 | | | | | | | | | | |
| | -25 | 55 | 32 | 55 | 208,0 | 710 | 179,0 | 1,21 | 4,13 | 1,04 | 172,0 | 2,75 | 2,59 | cecomaf LBP |
| | -13 | 131 | 90 | 131 | | | | | | | | | | |
| | -35 | 40 | 20 | 40 | 156,7 | 535 | 134,9 | 1,17 | 4,00 | 1,01 | 133,8 | 2,61 | 1,79 | EN12900 LBP |
| | -31 | 104 | 68 | 104 | | | | | | | | | | |
| | -7 | 54 | 35 | 46 | 508,0 | 1735 | 437,2 | 2,07 | 7,07 | 1,78 | 245,4 | 3,16 | 5,80 | ASHRAE MBP |
| | 20 | 130 | 95 | 115 | | | | | | | | | | |
| | -10 | 55 | 32 | 55 | 401,5 | 1371 | 345,6 | 1,72 | 5,87 | 1,48 | 233,7 | 3,09 | 5,08 | cecomaf MBP |
| | 14 | 131 | 90 | 131 | | | | | | | | | | |
| | -10 | 45 | 20 | 45 | 452,0 | 1544 | 389,0 | 2,06 | 7,05 | 1,78 | 219,0 | 2,99 | 5,55 | EN12900 MBP |
| | 14 | 113 | 68 | 113 | | | | | | | | | | |

Performance tables

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

| | pe | | Cooling capacity | | | COP | EER | P1 | I | m | |
|------------------|------|------|------------------|---------|----------|------|-------|------|-------|------|-------|
| | [°C] | [°F] | [W] | [Btu/h] | [kcal/h] | | | | | | |
| [°C / °F] | -40 | -40 | 113,5 | 388 | 97,7 | 0,96 | 3,27 | 0,82 | 118,6 | 2,57 | 1,27 |
| cond. pressure | -34 | -30 | 153,7 | 525 | 132,3 | 1,12 | 3,84 | 0,97 | 136,6 | 2,62 | 1,72 |
| pc= 45/113 | -23 | -10 | 267,3 | 913 | 230,1 | 1,53 | 5,21 | 1,31 | 175,2 | 2,77 | 3,02 |
| return gas temp. | -15 | 5 | 385,1 | 1315 | 331,4 | 1,89 | 6,46 | 1,63 | 203,5 | 2,91 | 4,38 |
| RGT= 32/90 | -4 | 25 | 591,1 | 2019 | 508,7 | 2,51 | 8,58 | 2,16 | 235,3 | 3,09 | 6,82 |
| liquid temp | 0 | 32 | 677,5 | 2314 | 583,1 | 2,78 | 9,49 | 2,39 | 243,9 | 3,14 | 7,86 |
| Tliq= 45/113 | 7,2 | 45 | 859,4 | 2935 | 739,6 | 3,37 | 11,52 | 2,90 | 254,8 | 3,22 | 10,10 |
| [°C / °F] | -40 | -40 | 99,2 | 339 | 85,4 | 0,88 | 2,99 | 0,75 | 113,2 | 2,54 | 1,22 |
| cond. pressure | -34 | -30 | 130,7 | 446 | 112,5 | 0,98 | 3,34 | 0,84 | 133,7 | 2,60 | 1,62 |
| pc= 55/131 | -23 | -10 | 225,0 | 768 | 193,6 | 1,26 | 4,29 | 1,08 | 179,0 | 2,78 | 2,81 |
| return gas temp | -15 | 5 | 326,6 | 1115 | 281,0 | 1,53 | 5,22 | 1,31 | 213,8 | 2,97 | 4,11 |
| RGT= 32/90 | -4 | 25 | 508,6 | 1737 | 437,7 | 1,98 | 6,78 | 1,71 | 256,2 | 3,23 | 6,49 |
| liquid temp | 0 | 32 | 586,0 | 2001 | 504,3 | 2,18 | 7,44 | 1,87 | 269,0 | 3,31 | 7,53 |
| Tliq= 55/131 | 7,2 | 45 | 750,2 | 2562 | 645,7 | 2,60 | 8,88 | 2,24 | 288,6 | 3,45 | 9,77 |

Model

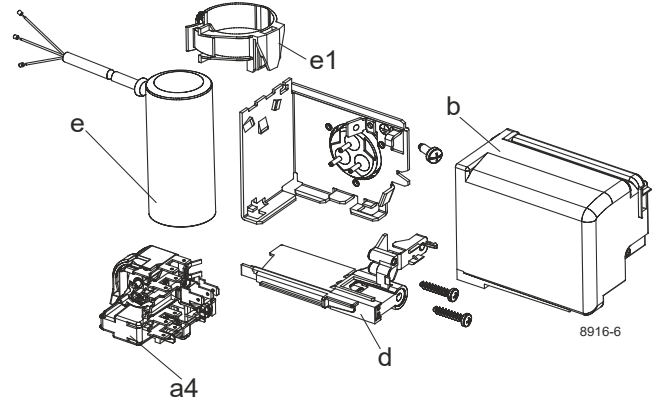
| | | | | | |
|-------------|------------------|----------------------|----------------|-------------|-----------------|
| Designation | KLF4.8CNH | 115-127V/60Hz | Conf. 2 | Sales code: | 106H3500 |
|-------------|------------------|----------------------|----------------|-------------|-----------------|

Configuration

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

Electrical accessories / wiring diagram

RSCR

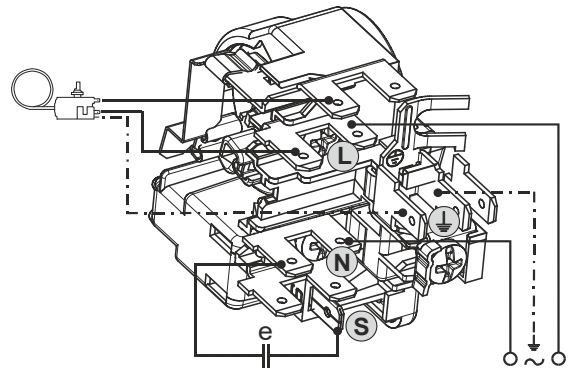


Ambient/ machine room temperatures minimum /maximum

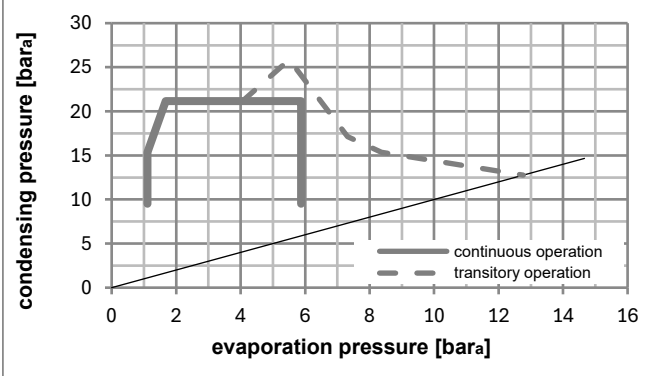
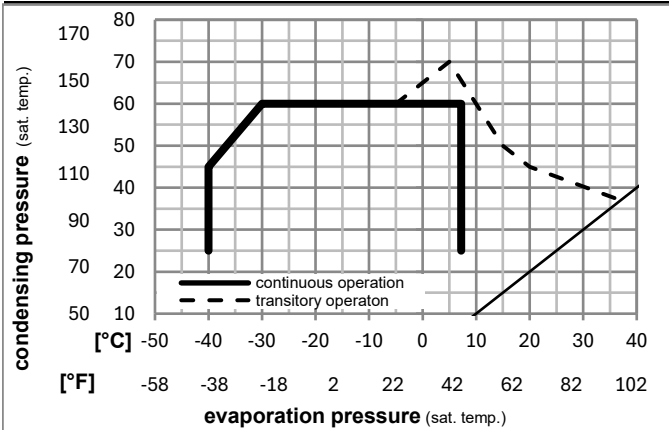
Ambient temperature range: 10 - 43°C / 50 - 110°F

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

Compressor cooling: fan 3m/s



Operation pressure range



Components

| | | |
|------|------------------------------------|----------|
| a4 | DLS5 (PTC,6.3mm, T1217/L6 - S5) | 103N0212 |
| 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 **KLF4.8CNH** **115-127V/60Hz** Conf. 2 Sales code: **106H3500**

Optimization + standard conditions

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

| | Evaporating pressure (saturation temperature) | | | | Cooling capacity | | | COP | EER | | | Power consumption | | | ASHRAE LBP |
|--|---|------|------|------|------------------|---------|----------|------|-------|----------|-----------|-------------------|--------|-------------|------------|
| | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | | [W/W] | [Btu/Wh] | [kcal/Wh] | P1 | I | m | |
| | [°C] | [°C] | [°C] | [°C] | | | | | | | [W] | [A] | [kg/h] | | |
| | -23 | 54 | 32 | 32 | 278,7 | 952 | 239,9 | 1,61 | 5,51 | 1,39 | 172,7 | 2,80 | 2,82 | | |
| | [°F] | | | | | | | | | | | | | | |
| | -10 | 130 | 90 | 90 | | | | | | | | | | | |
| | [°C] | | | | | | | | | | | | | | |
| | -25 | 55 | 32 | 55 | 208,5 | 712 | 179,4 | 1,26 | 4,29 | 1,08 | 166,0 | 2,77 | 2,60 | cecomaf LBP | |
| | [°F] | | | | | | | | | | | | | | |
| | -13 | 131 | 90 | 131 | | | | | | | | | | | |
| | [°C] | | | | | | | | | | | | | | |
| | -35 | 40 | 20 | 40 | 157,1 | 537 | 135,2 | 1,22 | 4,15 | 1,05 | 129,1 | 2,62 | 1,80 | EN12900 LBP | |
| | [°F] | | | | | | | | | | | | | | |
| | -31 | 104 | 68 | 104 | | | | | | | | | | | |
| | [°C] | | | | | | | | | | | | | | |
| | -7 | 54 | 35 | 46 | 509,2 | 1739 | 438,2 | 2,15 | 7,34 | 1,85 | 236,8 | 3,17 | 5,81 | ASHRAE MBP | |
| | [°F] | | | | | | | | | | | | | | |
| | 20 | 130 | 95 | 115 | | | | | | | | | | | |
| | [°C] | | | | | | | | | | | | | | |
| | -10 | 55 | 32 | 55 | 402,5 | 1375 | 346,4 | 1,78 | 6,09 | 1,54 | 225,6 | 3,10 | 5,09 | cecomaf MBP | |
| | [°F] | | | | | | | | | | | | | | |
| | 14 | 131 | 90 | 131 | | | | | | | | | | | |
| | [°C] | | | | | | | | | | | | | | |
| | -10 | 45 | 20 | 45 | 453,1 | 1547 | 389,9 | 2,14 | 7,32 | 1,85 | 211,3 | 3,01 | 5,56 | EN12900 MBP | |
| | [°F] | | | | | | | | | | | | | | |
| | 14 | 113 | 68 | 113 | | | | | | | | | | | |
| | [°C] | | | | | | | | | | | | | | |

Performance tables

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

| | pe | | Cooling capacity | | | COP | EER | | | P1 | I | m |
|------------------|------|------|------------------|---------|----------|------|-------|----------|-----------|------|-------|---|
| | [°C] | [°F] | [W] | [Btu/h] | [kcal/h] | | [W/W] | [Btu/Wh] | [kcal/Wh] | | | |
| [°C / °F] | -40 | -40 | 113,8 | 389 | 97,9 | 0,99 | 3,39 | 0,86 | 114,5 | 2,59 | 1,27 | |
| cond. pressure | -34 | -30 | 154,0 | 526 | 132,6 | 1,17 | 3,99 | 1,01 | 131,8 | 2,63 | 1,73 | |
| pc= 45/113 | -23 | -10 | 268,0 | 915 | 230,6 | 1,58 | 5,41 | 1,36 | 169,1 | 2,78 | 3,03 | |
| return gas temp. | -15 | 5 | 386,0 | 1318 | 332,2 | 1,97 | 6,71 | 1,69 | 196,4 | 2,92 | 4,39 | |
| RGT= 32/90 | -4 | 25 | 592,5 | 2024 | 509,9 | 2,61 | 8,91 | 2,25 | 227,1 | 3,11 | 6,83 | |
| liquid temp | 0 | 32 | 679,2 | 2319 | 584,5 | 2,89 | 9,86 | 2,48 | 235,3 | 3,16 | 7,88 | |
| Tliq= 45/113 | 7,2 | 45 | 861,4 | 2942 | 741,3 | 3,50 | 11,97 | 3,02 | 245,9 | 3,23 | 10,12 | |
| [°C / °F] | -40 | -40 | 99,4 | 340 | 85,6 | 0,91 | 3,11 | 0,78 | 109,2 | 2,55 | 1,23 | |
| cond. pressure | -34 | -30 | 131,0 | 447 | 112,7 | 1,02 | 3,47 | 0,87 | 129,0 | 2,61 | 1,62 | |
| pc= 55/131 | -23 | -10 | 225,5 | 770 | 194,1 | 1,31 | 4,46 | 1,12 | 172,7 | 2,80 | 2,81 | |
| return gas temp | -15 | 5 | 327,3 | 1118 | 281,7 | 1,59 | 5,42 | 1,37 | 206,3 | 2,98 | 4,12 | |
| RGT= 32/90 | -4 | 25 | 509,8 | 1741 | 438,7 | 2,06 | 7,04 | 1,77 | 247,3 | 3,24 | 6,51 | |
| liquid temp | 0 | 32 | 587,4 | 2006 | 505,6 | 2,26 | 7,73 | 1,95 | 259,6 | 3,33 | 7,55 | |
| Tliq= 55/131 | 7,2 | 45 | 752,1 | 2568 | 647,2 | 2,70 | 9,22 | 2,32 | 278,5 | 3,46 | 9,80 | |



KL Compressors

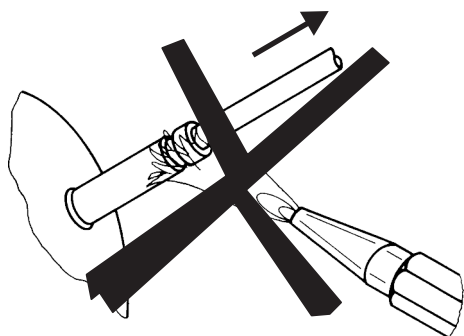




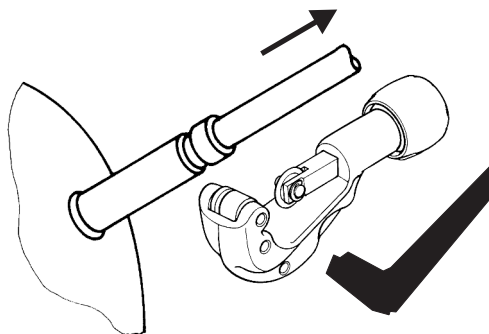
KL Compressors



Service/Repair – R290



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