

Single Pack KLF4.0CNH 115-127V 60Hz CSIR

Single pack code number: **195B4655**

| Position | Title | Code | Amount |
|----------|---|----------|--------|
| 1 | Compressor KLF4.0CNH | 106H3401 | 1 |
| 2 | KL accessories | 103N1060 | 1 |
| 3 | Starting capacitor (240 μ F 125V, 6.3mm) | 117U5002 | 1 |
| 4 | Starting relay (QLZ-7.85A, overload protector T1209/L6) | 117U7074 | 1 |
| 5 | Bolt joint for one compressor M6 \varnothing 16mm | 118-1917 | 1 |

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Model

| | | | | |
|-------------|------------------|------------------|-------------|-----------------|
| Designation | KLF4.0CNH | 115-127V/60Hz 1~ | Sales code: | 106H3401 |
|-------------|------------------|------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R290 |
| Oil viscosity | 10,4cSt | Displacement | 4cm ³ / 0,24cu.in |
| Oil quantity | 174cm ³ / 5,9fl.oz | Compressors on pallet | 100 |
| Refr. charge - tech. limit | 200g / 7,1oz | | |
| Free gas volume comp. | 1630cm ³ / 55,1fl.oz | | |
| Weight | 8,3kg / 18,3lbs | | |
| Motor protection | external | | |
| Winding resistance main | 3,4Ω (at 25°C) | | |
| Winding resistance aux | 8Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 130°C / 266°F | | |



General - Configurations with KLF4.0CNH

| | 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 KLF4.0CNH

| | 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 KLF4.0CNH

| | Conf. 1 | Conf. 2 |
|------------------------------------|----------------|----------------|
| Starting device type | relay | PTC |
| Run capacitor | - / - | 15μF |
| Start capacitor | 240μF | - / - |
| LRA (locked rotor amps / 4s/ U(N)) | 21,2A | #NV |
| RLA (rated load amps / 1s/ U(N)) | 2,7A | #NV |
| Cut in current (U(N)) | 20,5A | #NV |

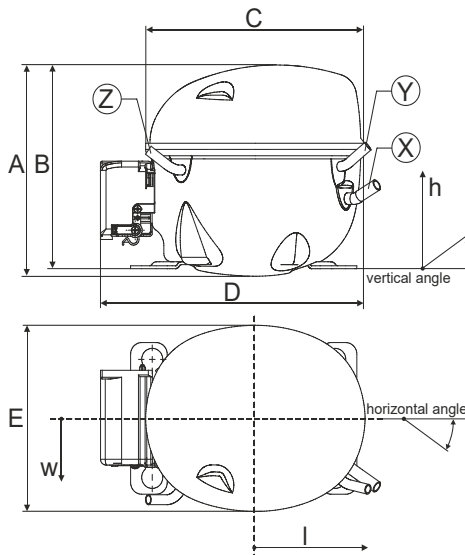
Model

| | | | | |
|-------------|------------------|------------------|-------------|-----------------|
| Designation | KLF4.0CNH | 115-127V/60Hz 1~ | Sales code: | 106H3401 |
|-------------|------------------|------------------|-------------|-----------------|

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 |



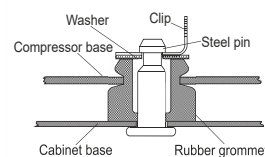
Compressor fixation



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

Model

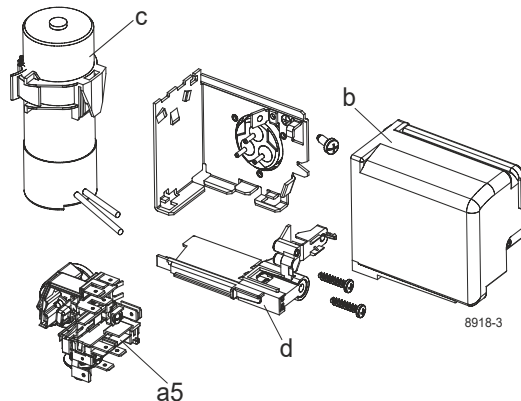
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|-------------|------------------|----------------------|----------------|-------------|-----------------|
| Designation | KLF4.0CNH | 115-127V/60Hz | Conf. 1 | Sales code: | 106H3401 |
|-------------|------------------|----------------------|----------------|-------------|-----------------|

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

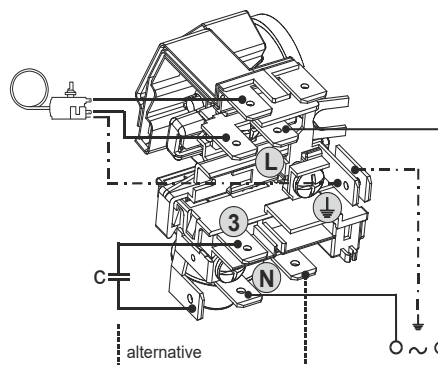


Ambient/ machine room temperatures minimum /maximum

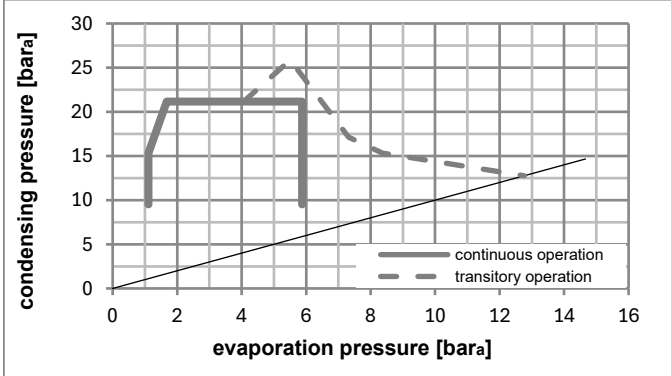
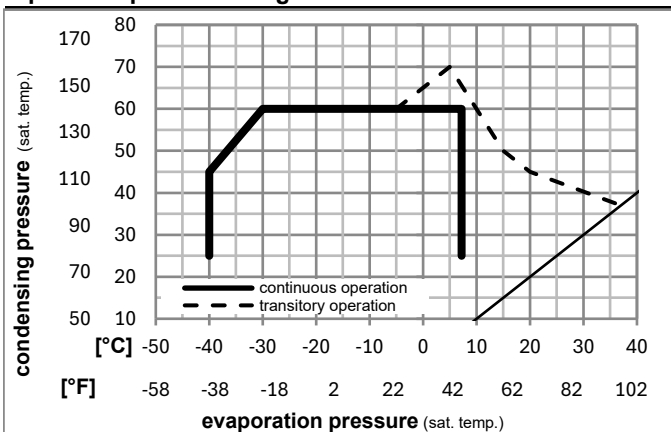
Ambient temperature range: 10 - 43°C / 50 - 110°F

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

Compressor cooling: fan 3m/s



Operation pressure range



Components

| | | |
|------|------------------------------------|----------|
| a5 | current relay (T1209/L6-S4) | 117U7074 |
| 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 **KLF4.0CNH** **115-127V/60Hz** Conf. 1 Sales code: **106H3401**

Optimization + standard conditions

R290, 115V/60Hz, CSIR, 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] | | | P1 | I | m | | |
| [°C] | [°C] | [°C] | [°C] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | | |
| [°C] | -23 | 54 | 32 | 32 | 228,0 | 779 | 196,2 | 1,49 | 5,08 | 1,28 | 153,2 | 1,92 | 2,31 | ASHRAE LBP |
| [°F] | -10 | 130 | 90 | 90 | | | | | | | | | | |
| [°C] | -25 | 55 | 32 | 55 | 169,4 | 579 | 145,8 | 1,14 | 3,89 | 0,98 | 148,7 | 1,89 | 2,11 | cecomaf LBP |
| [°F] | -13 | 131 | 90 | 131 | | | | | | | | | | |
| [°C] | -35 | 40 | 20 | 40 | 127,2 | 434 | 109,5 | 1,05 | 3,58 | 0,90 | 121,3 | 1,73 | 1,45 | EN12900 LBP |
| [°F] | -31 | 104 | 68 | 104 | | | | | | | | | | |
| [°C] | -7 | 54 | 35 | 46 | 418,6 | 1429 | 360,2 | 2,09 | 7,14 | 1,80 | 200,3 | 2,25 | 4,77 | ASHRAE MBP |
| [°F] | 20 | 130 | 95 | 115 | | | | | | | | | | |
| [°C] | -10 | 55 | 32 | 55 | 331,7 | 1133 | 285,5 | 1,72 | 5,88 | 1,48 | 192,8 | 2,20 | 4,20 | cecomaf MBP |
| [°F] | 14 | 131 | 90 | 131 | | | | | | | | | | |
| [°C] | -10 | 45 | 20 | 45 | 376,1 | 1284 | 323,7 | 2,14 | 7,30 | 1,84 | 175,9 | 2,07 | 4,62 | EN12900 MBP |
| [°F] | 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 | 81,8 | 279 | 70,4 | 0,71 | 2,43 | 0,61 | 115,1 | 1,71 | 0,91 |
| cond. pressure | -34 | -30 | 122,7 | 419 | 105,6 | 0,99 | 3,39 | 0,86 | 123,5 | 1,75 | 1,38 |
| pc= 45/113 | -23 | -10 | 222,9 | 761 | 191,8 | 1,52 | 5,20 | 1,31 | 146,3 | 1,88 | 2,52 |
| return gas temp. | -15 | 5 | 320,7 | 1095 | 276,0 | 1,94 | 6,63 | 1,67 | 165,2 | 2,00 | 3,65 |
| RGT= 32/90 | -4 | 25 | 492,6 | 1682 | 423,9 | 2,63 | 8,98 | 2,26 | 187,3 | 2,15 | 5,68 |
| liquid temp | 0 | 32 | 566,1 | 1933 | 487,2 | 2,93 | 10,02 | 2,52 | 193,0 | 2,20 | 6,57 |
| Tliq= 45/113 | 7,2 | 45 | 724,3 | 2473 | 623,3 | 3,63 | 12,41 | 3,13 | 199,4 | 2,24 | 8,51 |
| [°C / °F] | -40 | -40 | 53,0 | 181 | 45,6 | 0,48 | 1,65 | 0,42 | 109,9 | 1,67 | 0,65 |
| cond. pressure | -34 | -30 | 92,9 | 317 | 80,0 | 0,76 | 2,59 | 0,65 | 122,6 | 1,74 | 1,15 |
| pc= 55/131 | -23 | -10 | 184,6 | 630 | 158,9 | 1,20 | 4,10 | 1,03 | 153,7 | 1,93 | 2,30 |
| return gas temp | -15 | 5 | 270,4 | 924 | 232,7 | 1,51 | 5,17 | 1,30 | 178,6 | 2,09 | 3,40 |
| RGT= 32/90 | -4 | 25 | 418,8 | 1430 | 360,4 | 2,01 | 6,87 | 1,73 | 208,3 | 2,31 | 5,34 |
| liquid temp | 0 | 32 | 482,1 | 1646 | 414,9 | 2,23 | 7,60 | 1,92 | 216,6 | 2,37 | 6,19 |
| Tliq= 55/131 | 7,2 | 45 | 618,4 | 2112 | 532,2 | 2,72 | 9,27 | 2,34 | 227,7 | 2,46 | 8,06 |

Model

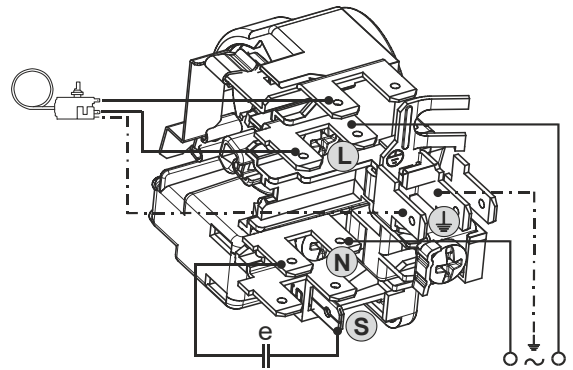
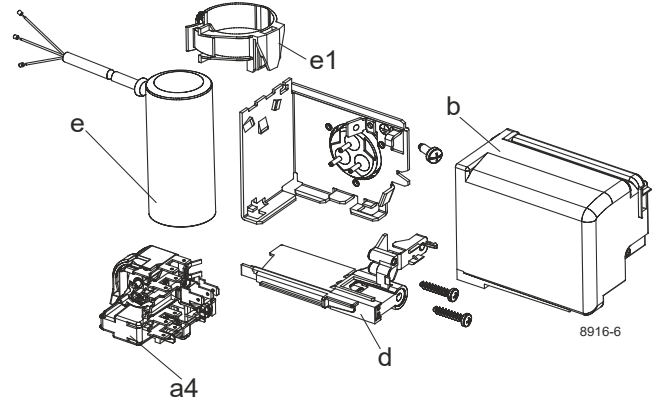
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|-------------|------------------|----------------------|----------------|-------------|-----------------|
| Designation | KLF4.0CNH | 115-127V/60Hz | Conf. 2 | Sales code: | 106H3401 |
|-------------|------------------|----------------------|----------------|-------------|-----------------|

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 | DLS4 (PTC,6.3mm, T1209/L6 - S4) | 103N0210 |
| 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 **KLF4.0CNH** **115-127V/60Hz** Conf. 2 Sales code: **106H3401**

Optimization + standard conditions

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

| | 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 | 230,4 | 787 | 198,3 | 1,57 | 5,35 | 1,35 | 147,0 | 1,36 | 2,33 | ASHRAE LBP | | |
| | -10 | 130 | 90 | 90 | | | | | | | | | | | | |
| | -25 | 55 | 32 | 55 | 171,1 | 584 | 147,2 | 1,20 | 4,09 | 1,03 | 142,8 | 1,32 | 2,13 | cecomaf LBP | | |
| | -13 | 131 | 90 | 131 | | | | | | | | | | | | |
| | -35 | 40 | 20 | 40 | 128,1 | 437 | 110,2 | 1,10 | 3,76 | 0,95 | 116,3 | 1,10 | 1,46 | EN12900 LBP | | |
| | -31 | 104 | 68 | 104 | | | | | | | | | | | | |
| | -7 | 54 | 35 | 46 | 423,7 | 1447 | 364,7 | 2,22 | 7,58 | 1,91 | 190,8 | 1,73 | 4,83 | ASHRAE MBP | | |
| | 20 | 130 | 95 | 115 | | | | | | | | | | | | |
| | -10 | 55 | 32 | 55 | 335,8 | 1147 | 289,0 | 1,83 | 6,24 | 1,57 | 183,9 | 1,67 | 4,25 | cecomaf MBP | | |
| | 14 | 131 | 90 | 131 | | | | | | | | | | | | |
| | -10 | 45 | 20 | 45 | 379,9 | 1298 | 327,0 | 2,26 | 7,72 | 1,94 | 168,1 | 1,53 | 4,66 | EN12900 MBP | | |
| | 14 | 113 | 68 | 113 | | | | | | | | | | | | |

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 | 82,7 | 282 | 71,2 | 0,75 | 2,56 | 0,65 | 110,1 | 1,05 | 0,92 |
| cond. pressure | -34 | -30 | 123,7 | 422 | 106,4 | 1,04 | 3,57 | 0,90 | 118,3 | 1,12 | 1,39 |
| pc= 45/113 | -23 | -10 | 224,8 | 768 | 193,4 | 1,60 | 5,48 | 1,38 | 140,1 | 1,30 | 2,54 |
| return gas temp. | -15 | 5 | 323,9 | 1106 | 278,7 | 2,05 | 7,00 | 1,76 | 158,0 | 1,45 | 3,68 |
| RGT= 32/90 | -4 | 25 | 497,6 | 1700 | 428,3 | 2,78 | 9,50 | 2,40 | 178,8 | 1,63 | 5,74 |
| liquid temp | 0 | 32 | 571,9 | 1953 | 492,2 | 3,10 | 10,60 | 2,67 | 184,2 | 1,67 | 6,63 |
| Tliq= 45/113 | 7,2 | 45 | 731,1 | 2497 | 629,2 | 3,84 | 13,13 | 3,31 | 190,2 | 1,72 | 8,59 |
| [°C / °F] | -40 | -40 | 53,4 | 182 | 46,0 | 0,51 | 1,73 | 0,44 | 105,6 | 1,01 | 0,66 |
| cond. pressure | -34 | -30 | 93,6 | 320 | 80,5 | 0,79 | 2,71 | 0,68 | 118,0 | 1,11 | 1,16 |
| pc= 55/131 | -23 | -10 | 186,5 | 637 | 160,5 | 1,26 | 4,32 | 1,09 | 147,5 | 1,36 | 2,33 |
| return gas temp | -15 | 5 | 273,7 | 935 | 235,5 | 1,60 | 5,47 | 1,38 | 170,7 | 1,56 | 3,44 |
| RGT= 32/90 | -4 | 25 | 423,9 | 1448 | 364,8 | 2,14 | 7,31 | 1,84 | 198,1 | 1,79 | 5,41 |
| liquid temp | 0 | 32 | 487,8 | 1666 | 419,8 | 2,37 | 8,10 | 2,04 | 205,6 | 1,86 | 6,27 |
| Tliq= 55/131 | 7,2 | 45 | 625,0 | 2134 | 537,9 | 2,90 | 9,91 | 2,50 | 215,3 | 1,94 | 8,14 |



KL Compressors

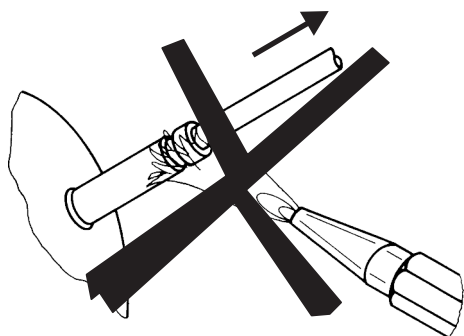




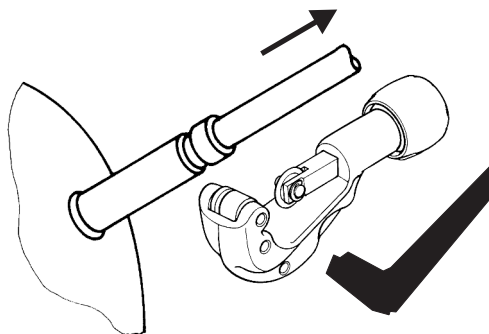
KL Compressors



Service/Repair – R290



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