

Single Pack KLF4.8CND 220-240V 50Hz RSCR

Single pack code number: **195B4750**

| Position | Title | Code | Amount |
|----------|---|----------|--------|
| 1 | Compressor KLF4.8CND | 106H2500 | 1 |
| 2 | Terminal board 6.3mm | 103N0254 | 1 |
| 3 | Run capacitor (5 μ F 420V, 6.3mm) | 117-7191 | 1 |
| 4 | KL accessories | 103N1060 | 1 |
| 5 | Bolt joint for one compressor M6 \varnothing 16mm | 118-1917 | 1 |

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Model

| | | | | |
|-------------|------------------|------------------|-------------|-----------------|
| Designation | KLF4.8CND | 220-240V/50Hz 1~ | Sales code: | 106H2500 |
|-------------|------------------|------------------|-------------|-----------------|

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 | 9,2kg / 20,3lbs | | |
| Motor protection | external | | |
| Winding resistance main | 13,1Ω (at 25°C) | | |
| Winding resistance aux | 25,3Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 130°C / 266°F | | |



General - Configurations with KLF4.8CND

| | Conf. 1 | Conf. 2 |
|------------------------|----------------|----------------|
| Motorconfiguration | CSIR | RSCR |
| Power supply (nominal) | 220-240V/50Hz | 220-240V/50Hz |
| Number of phases | 1 | 1 |
| Voltage range | 198-254V | 198-254V |
| Approvals | VDE, CCC | VDE, CCC |
| Starting torque | HST | LST |
| Note | - / - | |

Applications with KLF4.8CND

| | 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 KLF4.8CND

| | Conf. 1 | Conf. 2 |
|------------------------------------|----------------|----------------|
| Starting device type | relay | PTC |
| Run capacitor | - / - | 5μF |
| Start capacitor | 80μF | - / - |
| LRA (locked rotor amps / 4s/ U(N)) | 10,2A | 10,2A |
| RLA (rated load amps / 1s/ U(N)) | 1,4A | 1,4A |
| Cut in current (U(N)) | 10,2A | 12,65A |

Model

Designation

KLF4.8CND

220-240V/50Hz 1~

Sales code:

106H2500

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 6,11-6,29 | øi 6,11-6,29 |
| (i:inside, o:outside) | [in] | øi 0,32-0,33 | øi 0,24-0,25 | øi 0,24-0,25 |
| 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

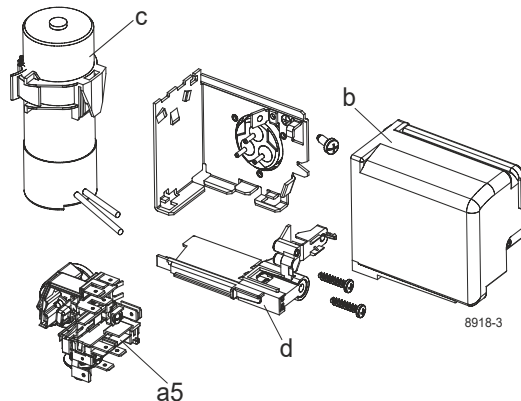
| | | | | | |
|-------------|------------------|----------------------|----------------|-------------|-----------------|
| Designation | KLF4.8CND | 220-240V/50Hz | Conf. 1 | Sales code: | 106H2500 |
|-------------|------------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSIR |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant | R290 |
| Application | LBP+MBP |
| Voltage range | 198-254V |
| Starting torque | HST |
| Approvals | VDE CCC |

Electrical accessories / wiring diagram

CSIR

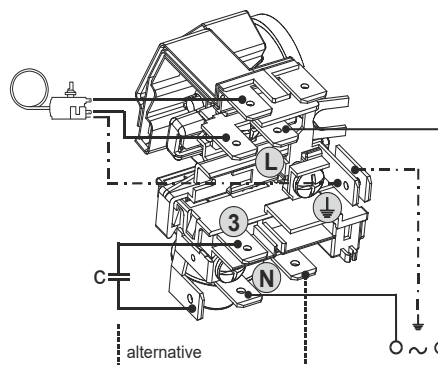


Ambient/ machine room temperatures minimum /maximum

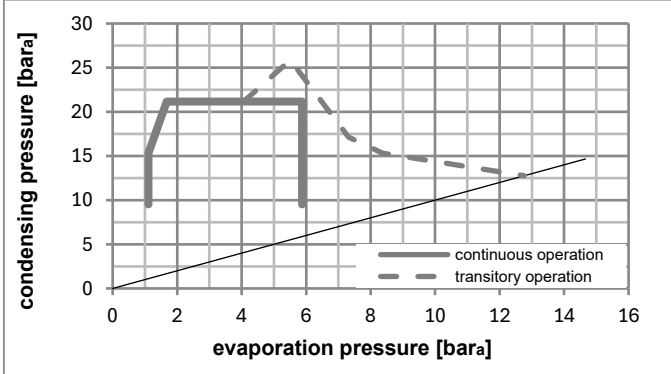
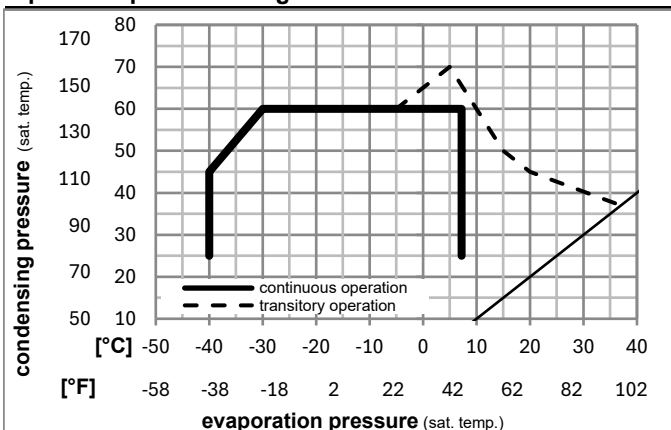
Ambient temperature range: 10 - 43°C / 50 - 110°F

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

Compressor cooling: fan 3m/s



Operation pressure range



Components

| | | |
|------|------------------------------------|----------|
| a5 | current relay (T1189/L6-S3) | 117U7073 |
| c | start capacitor (80μF, 6.3mm) | 117U5001 |
| 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 **KLF4.8CND** **220-240V/50Hz** Conf. 1 Sales code: **106H2500**

Optimization + standard conditions

R290, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC

| | Evaporating pressure (saturation temperature) | | | | Cooling capacity | | | COP | EER | Power consumption | | | ASHRAE LBP | |
|--|---|------|------|------|------------------|---------|----------|-------|----------|-------------------|-------|----------------|------------|-------------|
| | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | | | P1 | I | Ref. mass flow | | |
| | [°C] | [°C] | [°C] | [°C] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | |
| | -23 | 54 | 32 | 32 | 230,0 | 786 | 197,9 | 1,50 | 5,12 | 1,29 | 153,4 | 1,07 | 2,33 | ASHRAE LBP |
| | [°F] | | | | | | | | | | | | | |
| | -10 | 130 | 90 | 90 | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | -25 | 55 | 32 | 55 | 171,4 | 585 | 147,5 | 1,15 | 3,93 | 0,99 | 148,9 | 1,06 | 2,13 | cecomaf LBP |
| | [°F] | | | | | | | | | | | | | |
| | -13 | 131 | 90 | 131 | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | -35 | 40 | 20 | 40 | 126,8 | 433 | 109,1 | 1,07 | 3,66 | 0,92 | 118,3 | 0,98 | 1,45 | EN12900 LBP |
| | [°F] | | | | | | | | | | | | | |
| | -31 | 104 | 68 | 104 | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | -7 | 54 | 35 | 46 | 410,2 | 1401 | 353,0 | 2,06 | 7,05 | 1,78 | 198,7 | 1,22 | 4,68 | ASHRAE MBP |
| | [°F] | | | | | | | | | | | | | |
| | 20 | 130 | 95 | 115 | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | -10 | 55 | 32 | 55 | 326,0 | 1113 | 280,5 | 1,71 | 5,82 | 1,47 | 191,1 | 1,20 | 4,12 | cecomaf MBP |
| | [°F] | | | | | | | | | | | | | |
| | 14 | 131 | 90 | 131 | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | -10 | 45 | 20 | 45 | 367,7 | 1256 | 316,4 | 2,13 | 7,27 | 1,83 | 172,7 | 1,13 | 4,51 | EN12900 MBP |
| | [°F] | | | | | | | | | | | | | |
| | 14 | 113 | 68 | 113 | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Performance tables

R290, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC

| | pe | | Cooling capacity | | | COP | EER | P1 | I | m | |
|------------------|------|------|------------------|---------|----------|------|-------|------|-------|------|------|
| | [°C] | [°F] | [W] | [Btu/h] | [kcal/h] | | | | | | |
| [°C / °F] | -40 | -40 | 78,6 | 269 | 67,7 | 0,73 | 2,49 | 0,63 | 107,7 | 0,96 | 0,88 |
| cond. pressure | -35 | -31 | 119,0 | 406 | 102,4 | 0,99 | 3,39 | 0,85 | 120,0 | 0,98 | 1,33 |
| pc= 45/113 | -25 | -13 | 207,0 | 707 | 178,1 | 1,45 | 4,95 | 1,25 | 142,9 | 1,04 | 2,33 |
| return gas temp. | -15 | 5 | 316,1 | 1079 | 272,0 | 1,93 | 6,61 | 1,66 | 163,4 | 1,10 | 3,60 |
| RGT= 32/90 | -5 | 23 | 459,8 | 1570 | 395,7 | 2,54 | 8,66 | 2,18 | 181,4 | 1,16 | 5,29 |
| liquid temp | 0 | 32 | 548,9 | 1874 | 472,4 | 2,90 | 9,90 | 2,49 | 189,4 | 1,19 | 6,37 |
| Tliq= 45/113 | 7,2 | 45 | 701,7 | 2396 | 603,9 | 3,51 | 12,00 | 3,02 | 199,7 | 1,23 | 8,24 |
| [°C / °F] | -40 | -40 | 51,9 | 177 | 44,6 | 0,51 | 1,73 | 0,44 | 102,5 | 0,94 | 0,64 |
| cond. pressure | -35 | -31 | 90,6 | 310 | 78,0 | 0,77 | 2,61 | 0,66 | 118,4 | 0,98 | 1,12 |
| pc= 55/131 | -25 | -13 | 171,4 | 585 | 147,5 | 1,15 | 3,93 | 0,99 | 148,9 | 1,06 | 2,13 |
| return gas temp | -15 | 5 | 267,7 | 914 | 230,4 | 1,51 | 5,15 | 1,30 | 177,5 | 1,15 | 3,37 |
| RGT= 32/90 | -5 | 23 | 393,2 | 1343 | 338,4 | 1,92 | 6,57 | 1,66 | 204,3 | 1,24 | 5,01 |
| liquid temp | 0 | 32 | 471,0 | 1609 | 405,4 | 2,17 | 7,42 | 1,87 | 216,9 | 1,29 | 6,05 |
| Tliq= 55/131 | 7,2 | 45 | 605,3 | 2067 | 520,9 | 2,59 | 8,83 | 2,22 | 234,1 | 1,36 | 7,89 |

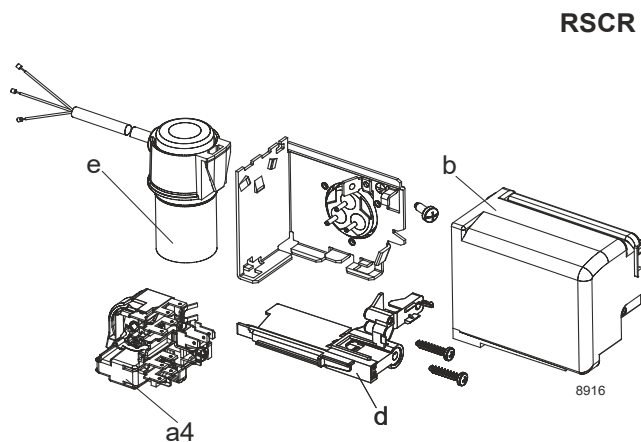
Model

| | | | | | |
|-------------|------------------|----------------------|----------------|-------------|-----------------|
| Designation | KLF4.8CND | 220-240V/50Hz | Conf. 2 | Sales code: | 106H2500 |
|-------------|------------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | RSCR |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant | R290 |
| Application | LBP+MBP |
| Voltage range | 198-254V |
| Starting torque | LST |
| Approvals | VDE CCC |

Electrical accessories / wiring diagram



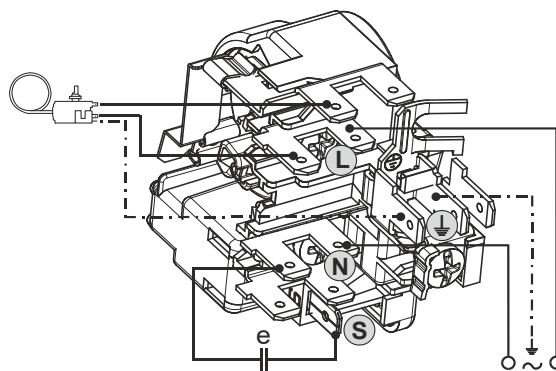
RSCR

Ambient/ machine room temperatures minimum /maximum

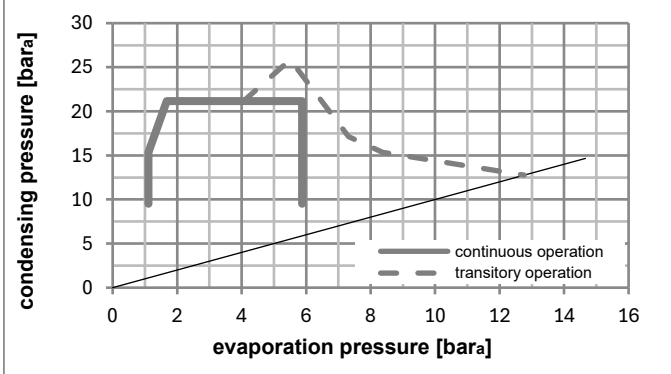
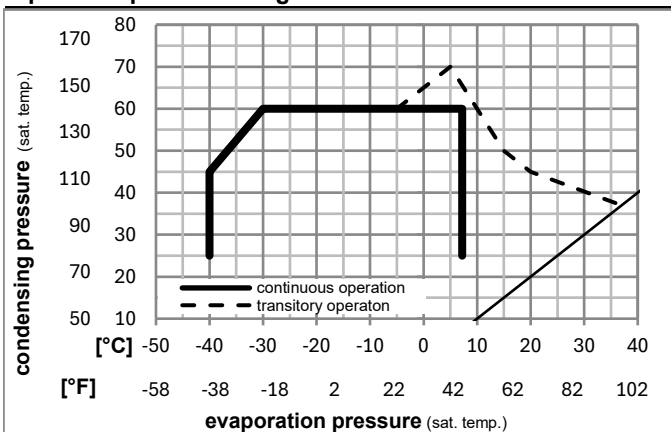
Ambient temperature range: 10 - 43°C / 50 - 110°F

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

Compressor cooling: fan 3m/s



Operation pressure range



Components

| | | |
|------|------------------------------------|----------|
| a4 | DAS3 (PTC,6.3mm, T1189/L6 - S3) | 103N0254 |
| e | run capacitor (5μF, 6.3mm) | 117-7191 |
| b, d | cover + clamp + screws(5VA) in bag | 103N1060 |

Alternative components

| | | |
|----|---------------------------------|----------|
| a4 | ZAS3 (PTC,4.8mm, T1189/L6 - S3) | 103N0255 |
| e | run capacitor (5μF, 4.8mm) | 117-7190 |

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

Model

Designation **KLF4.8CND** **220-240V/50Hz** Conf. 2 Sales code: **106H2500**

Optimization + standard conditions

R290, 220V/50Hz, RSCR, fan 3m/s, VDE, CCC

| | Evaporating pressure (saturation temperature) | | | | Cooling capacity | COP | EER | Power consumption | | | ASHRAE LBP | | | |
|--|---|------|------|------|------------------|---------|----------|-------------------|----------|-----------|------------|------|--------|-------------|
| | pe | pc | RGT | Tliq | | | | P1 | 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 | 230,3 | 787 | 198,2 | 1,55 | 5,30 | 1,33 | 148,5 | 0,78 | 2,33 | ASHRAE LBP |
| | -10 | 130 | 90 | 90 | | | | | | | | | | |
| | -25 | 55 | 32 | 55 | 171,6 | 586 | 147,7 | 1,19 | 4,06 | 1,02 | 144,3 | 0,77 | 2,14 | cecomaf LBP |
| | -13 | 131 | 90 | 131 | | | | | | | | | | |
| | -35 | 40 | 20 | 40 | 126,9 | 433 | 109,2 | 1,09 | 3,73 | 0,94 | 116,1 | 0,66 | 1,45 | EN12900 LBP |
| | -31 | 104 | 68 | 104 | | | | | | | | | | |
| | -7 | 54 | 35 | 46 | 411,1 | 1404 | 353,8 | 2,17 | 7,40 | 1,87 | 189,7 | 0,95 | 4,69 | ASHRAE MBP |
| | 20 | 130 | 95 | 115 | | | | | | | | | | |
| | -10 | 55 | 32 | 55 | 326,7 | 1116 | 281,1 | 1,79 | 6,10 | 1,54 | 182,9 | 0,92 | 4,13 | cecomaf MBP |
| | 14 | 131 | 90 | 131 | | | | | | | | | | |
| | -10 | 45 | 20 | 45 | 368,3 | 1258 | 317,0 | 2,22 | 7,57 | 1,91 | 166,2 | 0,85 | 4,52 | EN12900 MBP |
| | 14 | 113 | 68 | 113 | | | | | | | | | | |

Performance tables

R290, 220V/50Hz, RSCR, fan 3m/s, VDE, CCC

| | 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 | 78,7 | 269 | 67,7 | 0,74 | 2,53 | 0,64 | 106,2 | 0,62 | 0,88 |
| cond. pressure | -35 | -31 | 119,1 | 407 | 102,5 | 1,01 | 3,46 | 0,87 | 117,6 | 0,66 | 1,33 |
| pc= 45/113 | -25 | -13 | 207,2 | 708 | 178,3 | 1,49 | 5,10 | 1,28 | 138,9 | 0,74 | 2,34 |
| return gas temp. | -15 | 5 | 316,6 | 1081 | 272,5 | 2,01 | 6,85 | 1,73 | 157,7 | 0,82 | 3,60 |
| RGT= 32/90 | -5 | 23 | 460,7 | 1573 | 396,5 | 2,65 | 9,04 | 2,28 | 174,1 | 0,89 | 5,30 |
| liquid temp | 0 | 32 | 550,0 | 1878 | 473,3 | 3,03 | 10,35 | 2,61 | 181,4 | 0,92 | 6,38 |
| Tliq= 45/113 | 7,2 | 45 | 703,3 | 2402 | 605,3 | 3,69 | 12,59 | 3,17 | 190,8 | 0,96 | 8,26 |
| [°C / °F] | -40 | -40 | 51,9 | 177 | 44,7 | 0,51 | 1,75 | 0,44 | 101,4 | 0,61 | 0,64 |
| cond. pressure | -35 | -31 | 90,7 | 310 | 78,1 | 0,78 | 2,67 | 0,67 | 116,2 | 0,66 | 1,12 |
| pc= 55/131 | -25 | -13 | 171,6 | 586 | 147,7 | 1,19 | 4,06 | 1,02 | 144,3 | 0,77 | 2,14 |
| return gas temp | -15 | 5 | 268,2 | 916 | 230,8 | 1,57 | 5,37 | 1,35 | 170,5 | 0,87 | 3,37 |
| RGT= 32/90 | -5 | 23 | 394,1 | 1346 | 339,2 | 2,02 | 6,91 | 1,74 | 194,7 | 0,97 | 5,02 |
| liquid temp | 0 | 32 | 472,3 | 1613 | 406,5 | 2,29 | 7,83 | 1,97 | 206,1 | 1,02 | 6,07 |
| Tliq= 55/131 | 7,2 | 45 | 607,1 | 2073 | 522,5 | 2,74 | 9,36 | 2,36 | 221,6 | 1,09 | 7,91 |



KL Compressors





KL Compressors



Service/Repair – R290



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