

## Single Pack KLF7.7CND 220-240V 50Hz CSIR

Single pack code number: **195B4597**

| Position | Title   | Code     | Amount |
|----------|---|----------|--------|
| 1        | Compressor KLF7.7CND                                    | 106H2800 | 1      |
| 2        | KL accessories  | 103N1060 | 1      |
| 3        | Starting capacitor (80 $\mu$ F 220V, 6.3mm)             | 117U5001 | 1      |
| 4        | Starting relay (QLZ-5.5A, overload protector T0377/L6)  | 117U7071 | 1      |
| 5        | Bolt joint for one compressor   M6   $\varnothing$ 16mm | 118-1917 | 1      |

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## Model

|             |                  |                  |             |                 |
|-------------|------------------|------------------|-------------|-----------------|
| Designation | <b>KLF7.7CND</b> | 220-240V/50Hz 1~ | Sales code: | <b>106H2800</b> |
|-------------|------------------|------------------|-------------|-----------------|

## Compressor design

|                            |                                 |                       |                                |
|----------------------------|---------------------------------|-----------------------|--------------------------------|
| Oil type                   | Polyolester                     | Refrigerant(s)        | <b>R290</b>                    |
| Oil viscosity              | 10,4cSt                         | Displacement          | 7,7cm <sup>3</sup> / 0,47cu.in |
| Oil quantity               | 174cm <sup>3</sup> / 5,9fl.oz   | Compressors on pallet | 100                            |
| Refr. charge - tech. limit | 200g / 7,1oz                    |                       |                                |
| Free gas volume comp.      | 1575cm <sup>3</sup> / 53,3fl.oz |                       |                                |
| Weight                     | 9,6kg / 21,2lbs                 |                       |                                |
| Motor protection           | external                        |                       |                                |
| Winding resistance main    | 8,4Ω (at 25°C)                  |                       |                                |
| Winding resistance aux     | 11,9Ω (at 25°C)                 |                       |                                |
| Max. winding temp.         | 125°C / 257°F                   |                       |                                |
| Max. discharge temp.       | 130°C / 266°F                   |                       |                                |



## General - Configurations with KLF7.7CND

|                        | <b>Conf. 1</b> | <b>Conf. 2</b> |
|------------------------|----------------|----------------|
| 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 KLF7.7CND

|                         | <b>Conf. 1</b> | <b>Conf. 2</b> |
|-------------------------|----------------|----------------|
| 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 KLF7.7CND

|                                    | <b>Conf. 1</b> | <b>Conf. 2</b> |
|------------------------------------|----------------|----------------|
| Starting device type               | relay          | PTC            |
| Run capacitor                      | - / -          | 5μF            |
| Start capacitor                    | 80μF           | - / -          |
| LRA (locked rotor amps / 4s/ U(N)) | 13,2A          | 13,2A          |
| RLA (rated load amps / 1s/ U(N))   | 2,1A           | 2,1A           |
| Cut in current (U(N))              | 12,3A          | 18,1A          |

## Model

Designation

**KLF7.7CND**

220-240V/50Hz 1~

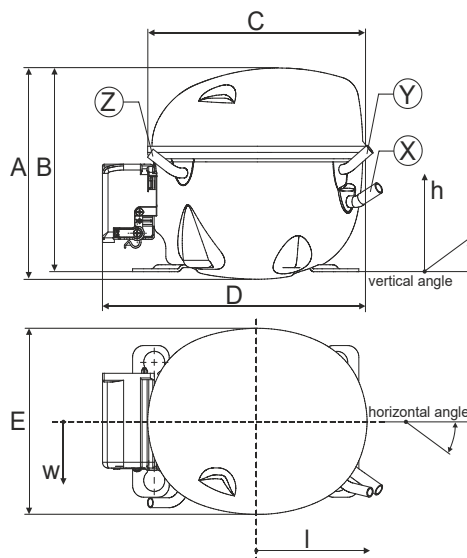
Sales code:

**106H2800**

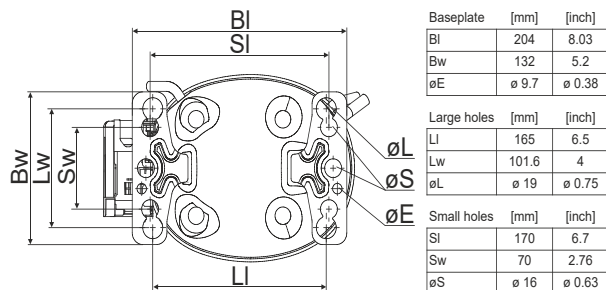
## Compressor dimensions

| 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  |

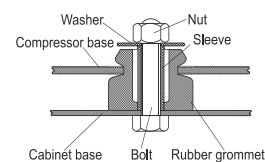
| Connectors            |      | Suction      | Discharge    | Process      |
|-----------------------|------|--------------|--------------|--------------|
|                       |      | X            | Y            | Z            |
| Diameter              | [mm] | øi 8,11-8,29 | øi 6,11-6,29 | øi 6,11-6,29 |
| (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          |



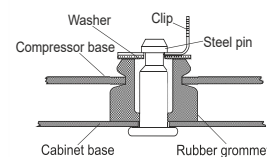
## Compressor fixation



## 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

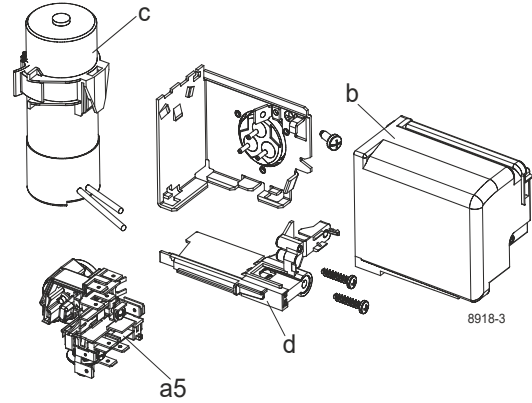
|             |                  |                      |                |             |                 |
|-------------|------------------|----------------------|----------------|-------------|-----------------|
| Designation | <b>KLF7.7CND</b> | <b>220-240V/50Hz</b> | <b>Conf. 1</b> | Sales code: | <b>106H2800</b> |
|-------------|------------------|----------------------|----------------|-------------|-----------------|

## Configuration

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

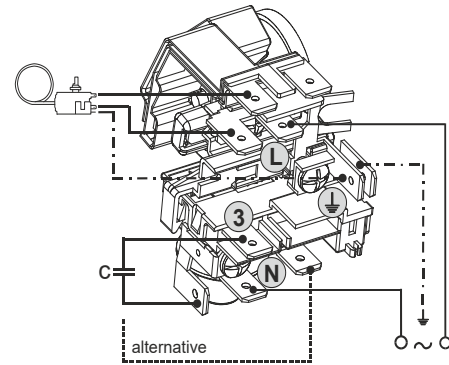
## Electrical accessories / wiring diagram

CSIR

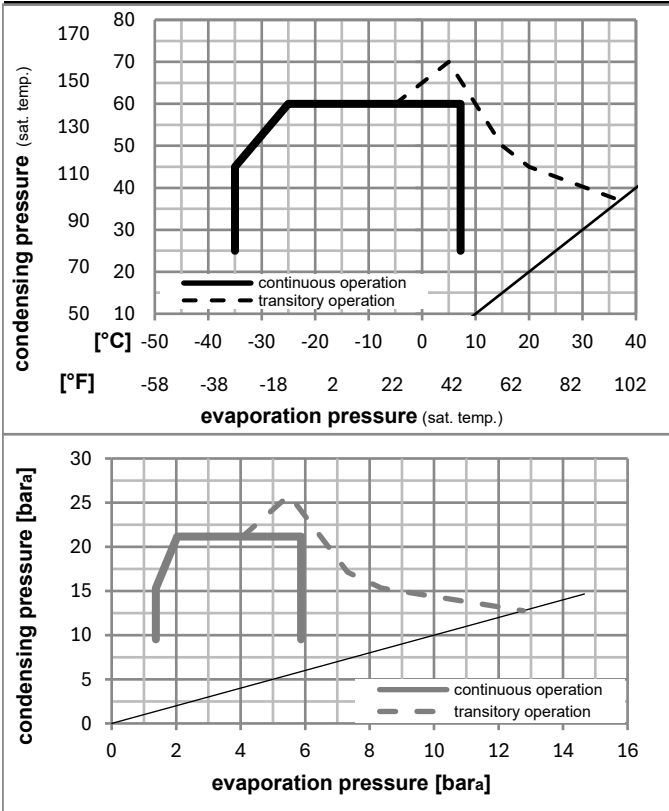


## Ambient/ machine room temperatures minimum /maximum

|                                 |                        |
|---------------------------------|------------------------|
| 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 (T0377/L6-S1)        | 117U7071 |
| 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 |



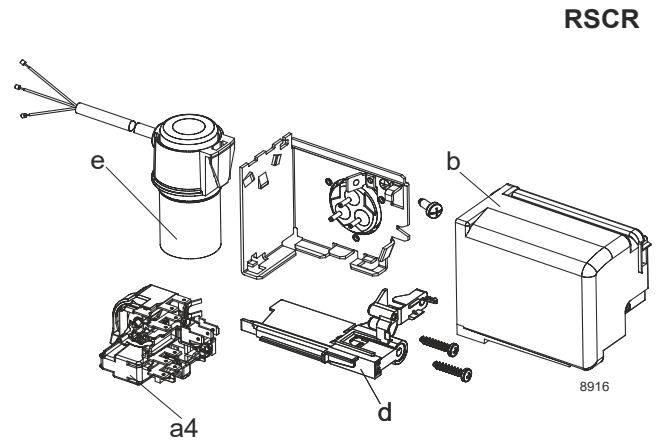
## Model

|             |                  |                      |                |             |                 |
|-------------|------------------|----------------------|----------------|-------------|-----------------|
| Designation | <b>KLF7.7CND</b> | <b>220-240V/50Hz</b> | <b>Conf. 2</b> | Sales code: | <b>106H2800</b> |
|-------------|------------------|----------------------|----------------|-------------|-----------------|

## Configuration

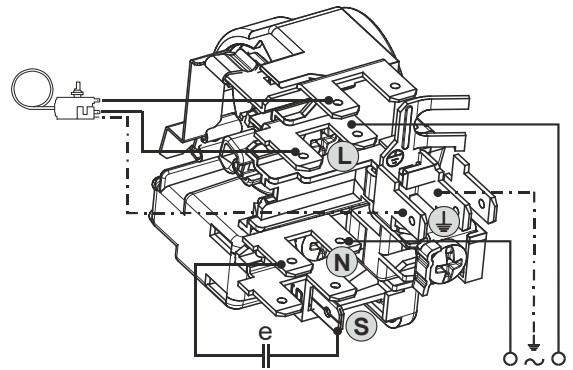
|                        |                  |
|------------------------|------------------|
| Motor configuration    | RSCR             |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant            | R290             |
| Application            | LBP+MBP          |
| Voltage range         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

## Electrical accessories / wiring diagram

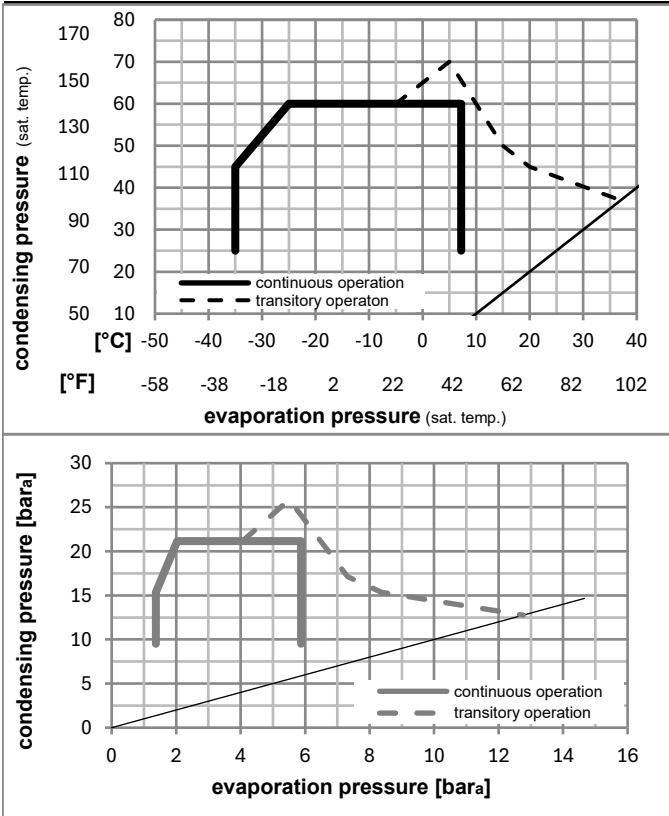


## Ambient/ machine room temperatures minimum /maximum

|                                 |                        |
|---------------------------------|------------------------|
| 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   | DAS1 (PTC, 6.3mm, T0377/L6 - S1)   | 103N0250 |
| e    | run capacitor (5µF, 6.3mm)         | 117-7191 |
| b, d | cover + clamp + screws(5VA) in bag | 103N1060 |

## Alternative components

|      |                                    |          |
|------|------------------------------------|----------|
| a4   | ZAS1 (PTC, 4.8mm, T0377/L6 - S1)   | 103N0252 |
| 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 **KLF7.7CND** **220-240V/50Hz** Conf. 2 Sales code: **106H2800**

### Optimization + standard conditions

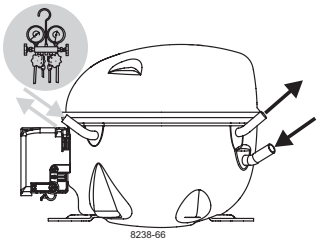
R290, 220V/50Hz, RSCR, fan 3m/s, VDE, CCC

|      | Evaporating pressure (saturation temperature) |     |     |      | Cooling capacity |         |          | COP  | EER   |          |           | Power consumption |      |   | ASHRAE LBP         |
|------|---|-----|-----|------|------------------|---------|----------|------|-------|----------|-----------|-------------------|------|---|--------------------|
|      | pe  | pc  | RGT | Tliq | [W]              | [Btu/h] | [kcal/h] |      | [W/W] | [Btu/Wh] | [kcal/Wh] | P1                | I    | m |                    |
| [°C] | -23   | 54  | 32  | 32   | 387,4            | 1323    | 333,4    | 1,60 | 5,46  | 1,38     | 242,2     | 1,36              | 3,92 |   |                    |
| [°F] | -10   | 130 | 90  | 90   |                  |         |          |      |       |          |           |                   |      |   |                    |
|      |   |     |     |      |                  |         |          |      |       |          |           |                   |      |   | <b>cecomaf LBP</b> |
| [°C] | -25   | 55  | 32  | 55   | 289,8            | 990     | 249,4    | 1,24 | 4,24  | 1,07     | 233,6     | 1,33              | 3,61 |   |                    |
| [°F] | -13   | 131 | 90  | 131  |                  |         |          |      |       |          |           |                   |      |   |                    |
|      |   |     |     |      |                  |         |          |      |       |          |           |                   |      |   | <b>EN12900 LBP</b> |
| [°C] | -35   | 40  | 20  | 40   | 224,1            | 765     | 192,9    | 1,27 | 4,32  | 1,09     | 177,0     | 1,13              | 2,56 |   |                    |
| [°F] | -31   | 104 | 68  | 104  |                  |         |          |      |       |          |           |                   |      |   |                    |
|      |   |     |     |      |                  |         |          |      |       |          |           |                   |      |   | <b>ASHRAE MBP</b>  |
| [°C] | -7  | 54  | 35  | 46   | 693,9            | 2370    | 597,2    | 2,12 | 7,26  | 1,83     | 326,6     | 1,69              | 7,92 |   |                    |
| [°F] | 20  | 130 | 95  | 115  |                  |         |          |      |       |          |           |                   |      |   |                    |
|      |   |     |     |      |                  |         |          |      |       |          |           |                   |      |   | <b>cecomaf MBP</b> |
| [°C] | -10   | 55  | 32  | 55   | 552,0            | 1885    | 475,1    | 1,77 | 6,05  | 1,52     | 311,7     | 1,63              | 6,98 |   |                    |
| [°F] | 14  | 131 | 90  | 131  |                  |         |          |      |       |          |           |                   |      |   |                    |
|      |   |     |     |      |                  |         |          |      |       |          |           |                   |      |   | <b>EN12900 MBP</b> |

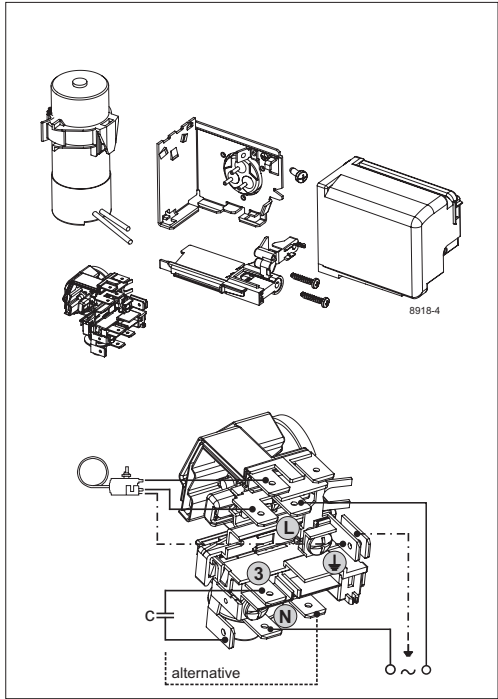
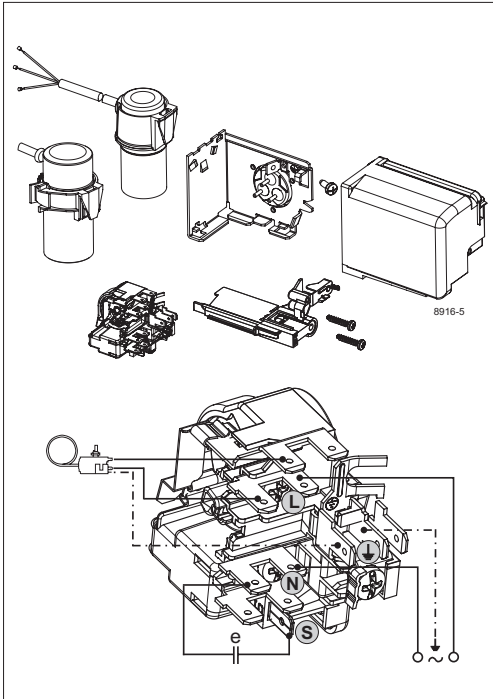
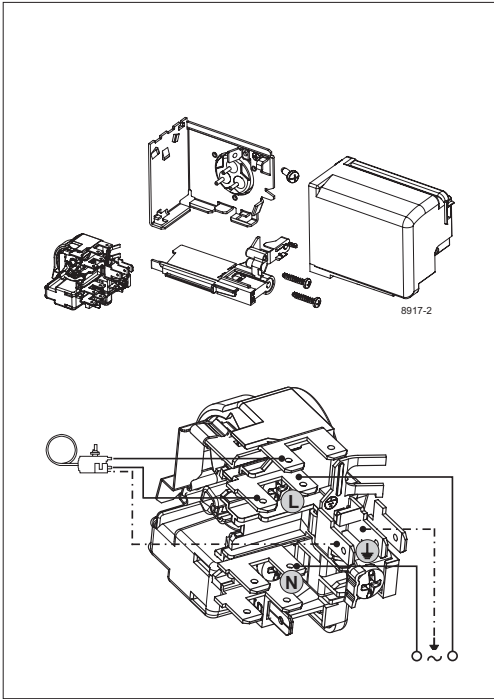
### Performance tables

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

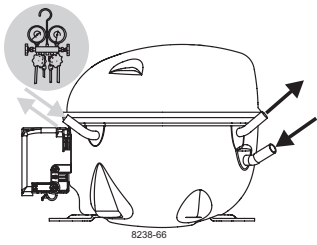
|                  | pe   |      | Cooling capacity |         |          | COP  | EER   |          | P1    | I    | m     |
|------------------|------|------|------------------|---------|----------|------|-------|----------|-------|------|-------|
|                  | [°C] | [°F] | [W]              | [Btu/h] | [kcal/h] |      | [W/W] | [Btu/Wh] |       |      |       |
| [°C / °F]        | -35  | -31  | 211,5            | 722     | 182,0    | 1,17 | 3,99  | 1,00     | 181,2 | 1,14 | 2,37  |
| cond. pressure   | -25  | -13  | 344,5            | 1177    | 296,5    | 1,54 | 5,25  | 1,32     | 223,9 | 1,29 | 3,89  |
| pc= 45/113       | -15  | 5    | 527,1            | 1800    | 453,7    | 1,98 | 6,78  | 1,71     | 265,6 | 1,44 | 6,00  |
| return gas temp. | -10  | 14   | 638,8            | 2182    | 549,8    | 2,23 | 7,63  | 1,92     | 285,9 | 1,53 | 7,31  |
| RGT= 32/90       | -5   | 23   | 765,1            | 2613    | 658,4    | 2,50 | 8,54  | 2,15     | 305,9 | 1,61 | 8,81  |
| liquid temp      | 0    | 32   | 906,6            | 3096    | 780,2    | 2,79 | 9,51  | 2,40     | 325,4 | 1,69 | 10,52 |
| Tliq= 45/113     | 7,2  | 45   | 1138,6           | 3888    | 979,9    | 3,23 | 11,02 | 2,78     | 352,8 | 1,80 | 13,38 |
| [°C / °F]        | -35  | -31  | 171,9            | 587     | 147,9    | 0,96 | 3,30  | 0,83     | 178,1 | 1,14 | 2,13  |
| cond. pressure   | -25  | -13  | 289,8            | 990     | 249,4    | 1,24 | 4,24  | 1,07     | 233,6 | 1,33 | 3,61  |
| pc= 55/131       | -15  | 5    | 452,3            | 1545    | 389,2    | 1,58 | 5,39  | 1,36     | 286,4 | 1,53 | 5,69  |
| return gas temp  | -10  | 14   | 552,0            | 1885    | 475,1    | 1,77 | 6,05  | 1,52     | 311,7 | 1,63 | 6,98  |
| RGT= 32/90       | -5   | 23   | 665,1            | 2271    | 572,4    | 1,98 | 6,75  | 1,70     | 336,3 | 1,73 | 8,47  |
| liquid temp      | 0    | 32   | 792,2            | 2706    | 681,8    | 2,20 | 7,51  | 1,89     | 360,0 | 1,83 | 10,18 |
| Tliq= 55/131     | 7,2  | 45   | 1001,3           | 3419    | 861,7    | 2,55 | 8,71  | 2,19     | 392,8 | 1,97 | 13,04 |



# KL Compressors



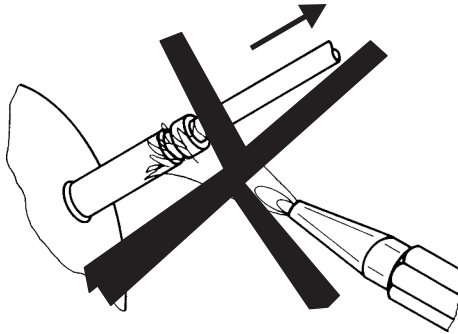




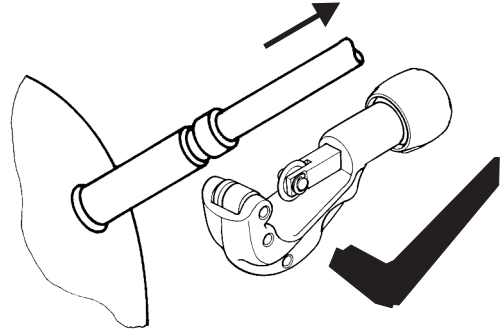
# KL Compressors



## Service/Repair – R290



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