

Single Pack KLF4.8CNT 200-240V 50Hz / 208-230V 60Hz CSIR

Single pack code number: **195B4698**

| Position | Title | Code | Amount |
|----------|--|----------|--------|
| 1 | Compressor KLF4.8CNT | 106H2512 | 1 |
| 2 | Bolt joint for one compressor M6 ø16mm | 118-1917 | 1 |

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Model

| | | | | |
|-------------|------------------|-----------------------------------|-------------|-----------------|
| Designation | KLF4.8CNT | 200-240V/50Hz 1~ 208-230V/60Hz 1~ | Sales code: | 106H2512 |
|-------------|------------------|-----------------------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|--------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R290 |
| Oil viscosity | 19,2cSt | Displacement | 4,8cm ³ / 0,29cu.in |
| Oil quantity | 162cm ³ / 5,5fl.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 | 10,7Ω (at 25°C) | | |
| Winding resistance aux | 17Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 130°C / 266°F | | |



General - Configurations with KLF4.8CNT

| | Conf. 1 | Conf. 2 |
|------------------------|---|-----------------|
| Motorconfiguration | CSIR | CSIR |
| Power supply (nominal) | 200-240V/50Hz | 208-230V/60Hz |
| Number of phases | 1 | 1 |
| Voltage range | 187-254V | 198-253V |
| Approvals | UL, CCC, CB | UL, CCC, CB, KC |
| Starting torque | HST | HST |
| Note | Electrical equipment is included and pre-assembled to compressor. | |

Applications with KLF4.8CNT

| | 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 | -/- |

Electrical data - Configurations with KLF4.8CNT

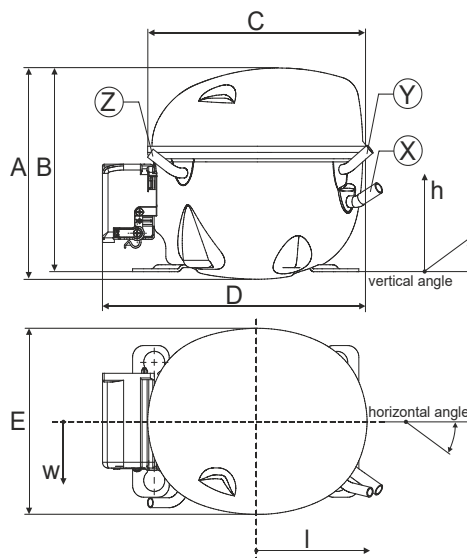
| | Conf. 1 | Conf. 2 |
|------------------------------------|----------------|----------------|
| Starting device type | relay | relay |
| Run capacitor | -/- | -/- |
| Start capacitor | 80μF | 80μF |
| LRA (locked rotor amps / 4s/ U(N)) | 11,3A | 11,3A |
| RLA (rated load amps / 1s/ U(N)) | 1,7A | 1,7A |
| Cut in current (U(N)) | 10,7A | 10,7A |

Model

| | | | | |
|-------------|------------------|-----------------------------------|-------------|-----------------|
| Designation | KLF4.8CNT | 200-240V/50Hz 1~ 208-230V/60Hz 1~ | Sales code: | 106H2512 |
|-------------|------------------|-----------------------------------|-------------|-----------------|

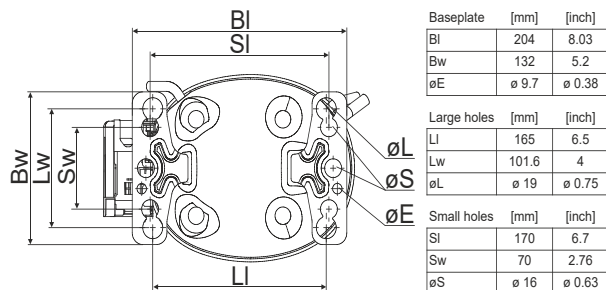
Compressor dimensions

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

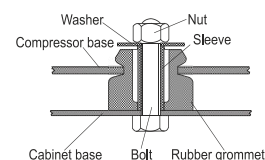


| Connectors | | Suction | Discharge | Process |
|-----------------------|------|--------------|--------------|--------------|
| | | X | Y | Z |
| Diameter | [mm] | øi 8,11-8,29 | øi 6,11-6,29 | øi 6,11-6,29 |
| (i:inside, o:outside) | [in] | øi 0,32-0,33 | øi 0,24-0,25 | øi 0,24-0,25 |
| Material | | 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 |

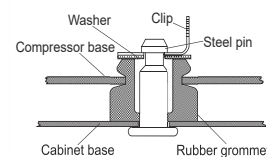
Compressor fixation



Bolt joint



Snap-on



| Mounting accessories | 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

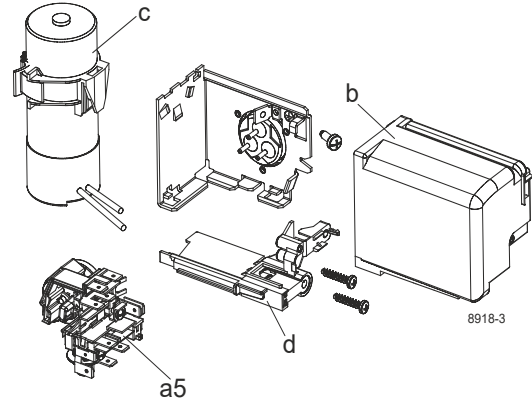
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|-------------|------------------|----------------------|----------------|-------------|-----------------|
| Designation | KLF4.8CNT | 200-240V/50Hz | Conf. 1 | Sales code: | 106H2512 |
|-------------|------------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSIR |
| Power supply (nominal) | 200-240V/50Hz 1~ |
| Refrigerant | R290 |
| Application | LBP+MBP |
| Voltage range | 187-254V |
| Starting torque | HST |
| Approvals | UL |
| | CCC |
| | CB |

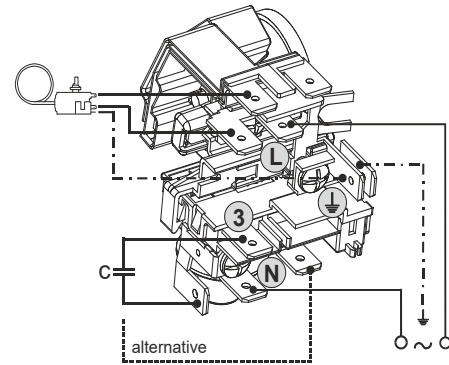
Electrical accessories / wiring diagram

CSIR

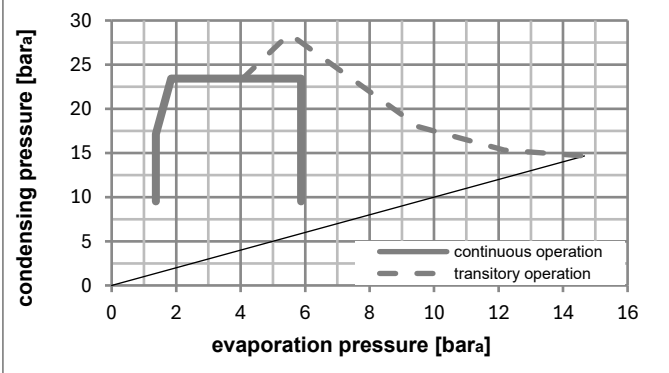
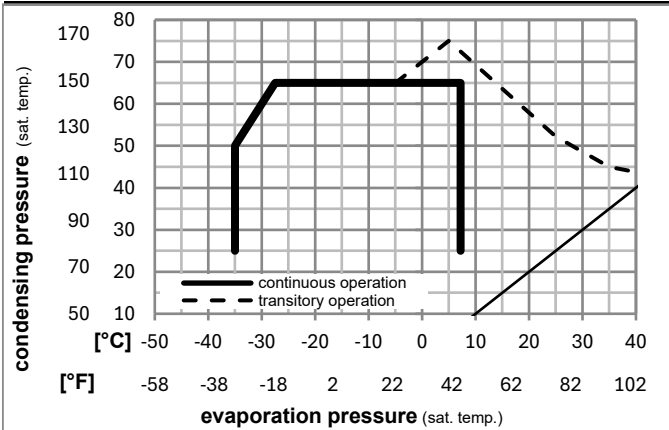


Ambient/ machine room temperatures minimum /maximum

| | |
|---------------------------------|------------------------|
| 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 (already pre-assembled)

| | | |
|----|-------------------------------|----------|
| a5 | current relay (T0089/L6-S2) | 117U7070 |
| c | start capacitor (80µF, 6.3mm) | 117U5003 |
| b | cover terminal board | 10636401 |
| . | screw uni en iso 4757 | 10641201 |

Alternative comp. (already pre-assembled)

| | | |
|---|-----------------|----------|
| . | cable clamp | 16058100 |
| . | screw - uni6954 | 10636000 |
| . | screw - uni6954 | 10636200 |

Model

Designation **KLF4.8CNT** **200-240V/50Hz** Conf. 1 Sales code: **106H2512**

Optimization + standard conditions

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

| | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | Return gas temp. | | | Liquid temp. | | | Cooling capacity | | | COP | EER | Power consumption | | |
|-------------|---|------|------|------|--|---------|----------|------------------|----------|-----------|--------------|------|----------------|------------------|--|--|-----|-----|-------------------|--|--|
| | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1 | I | Ref. mass flow | | | | | | | | |
| | [°C] | [°C] | [°C] | [°C] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | | | | | | | | |
| ASHRAE LBP | -23 | 54 | 32 | 32 | 228,7 | 781 | 196,8 | 1,48 | 5,05 | 1,27 | 154,6 | 1,38 | 2,32 | | | | | | | | |
| | [°F] | [°F] | [°F] | [°F] | | | | | | | | | | | | | | | | | |
| ASHRAE LBP | -10 | 130 | 90 | 90 | | | | | | | | | | | | | | | | | |
| cecomaf LBP | -25 | 55 | 32 | 55 | 170,2 | 581 | 146,5 | 1,13 | 3,87 | 0,97 | 150,3 | 1,37 | 2,12 | | | | | | | | |
| | [°C] | [°C] | [°C] | [°C] | | | | | | | | | | | | | | | | | |
| cecomaf LBP | -13 | 131 | 90 | 131 | | | | | | | | | | | | | | | | | |
| | [°F] | [°F] | [°F] | [°F] | | | | | | | | | | | | | | | | | |
| EN12900 LBP | -35 | 40 | 20 | 40 | 131,9 | 450 | 113,5 | 1,08 | 3,69 | 0,93 | 122,1 | 1,33 | 1,51 | | | | | | | | |
| | [°C] | [°C] | [°C] | [°C] | | | | | | | | | | | | | | | | | |
| EN12900 LBP | -31 | 104 | 68 | 104 | | | | | | | | | | | | | | | | | |
| | [°F] | [°F] | [°F] | [°F] | | | | | | | | | | | | | | | | | |
| ASHRAE MBP | -7 | 54 | 35 | 46 | 420,2 | 1435 | 361,7 | 2,07 | 7,07 | 1,78 | 202,9 | 1,49 | 4,79 | | | | | | | | |
| | [°C] | [°C] | [°C] | [°C] | | | | | | | | | | | | | | | | | |
| ASHRAE MBP | 20 | 130 | 95 | 115 | | | | | | | | | | | | | | | | | |
| | [°F] | [°F] | [°F] | [°F] | | | | | | | | | | | | | | | | | |
| cecomaf MBP | -10 | 55 | 32 | 55 | 332,3 | 1135 | 286,0 | 1,71 | 5,83 | 1,47 | 194,6 | 1,47 | 4,20 | | | | | | | | |
| | [°C] | [°C] | [°C] | [°C] | | | | | | | | | | | | | | | | | |
| cecomaf MBP | 14 | 131 | 90 | 131 | | | | | | | | | | | | | | | | | |
| | [°F] | [°F] | [°F] | [°F] | | | | | | | | | | | | | | | | | |
| EN12900 MBP | -10 | 45 | 20 | 45 | 384,6 | 1314 | 331,0 | 2,14 | 7,29 | 1,84 | 180,1 | 1,43 | 4,72 | | | | | | | | |
| | [°C] | [°C] | [°C] | [°C] | | | | | | | | | | | | | | | | | |
| EN12900 MBP | 14 | 113 | 68 | 113 | | | | | | | | | | | | | | | | | |
| | [°F] | [°F] | [°F] | [°F] | | | | | | | | | | | | | | | | | |

Performance tables

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

| | 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] | -35 | -31 | 121,2 | 414 | 104,3 | 0,99 | 3,37 | 0,85 | 122,7 | 1,33 | 1,36 |
| cond. pressure | -25 | -13 | 211,4 | 722 | 181,9 | 1,45 | 4,95 | 1,25 | 145,9 | 1,36 | 2,38 |
| pc= 45/113 | -15 | 5 | 328,2 | 1121 | 282,5 | 1,94 | 6,63 | 1,67 | 169,0 | 1,41 | 3,73 |
| return gas temp. | -10 | 14 | 400,4 | 1367 | 344,6 | 2,22 | 7,59 | 1,91 | 180,1 | 1,43 | 4,58 |
| RGT= 32/90 | -5 | 23 | 483,7 | 1652 | 416,3 | 2,54 | 8,67 | 2,19 | 190,5 | 1,45 | 5,57 |
| liquid temp | 0 | 32 | 579,7 | 1980 | 498,9 | 2,90 | 9,89 | 2,49 | 200,2 | 1,48 | 6,72 |
| Tliq= 45/113 | 7,2 | 45 | 743,2 | 2538 | 639,6 | 3,50 | 11,96 | 3,01 | 212,3 | 1,51 | 8,73 |
| [°C / °F] | -35 | -31 | 90,2 | 308 | 77,6 | 0,74 | 2,53 | 0,64 | 121,6 | 1,32 | 1,12 |
| cond. pressure | -25 | -13 | 170,2 | 581 | 146,5 | 1,13 | 3,87 | 0,97 | 150,3 | 1,37 | 2,12 |
| pc= 55/131 | -15 | 5 | 270,6 | 924 | 232,9 | 1,50 | 5,14 | 1,29 | 179,9 | 1,43 | 3,40 |
| return gas temp | -10 | 14 | 332,3 | 1135 | 286,0 | 1,71 | 5,83 | 1,47 | 194,6 | 1,47 | 4,20 |
| RGT= 32/90 | -5 | 23 | 403,5 | 1378 | 347,3 | 1,93 | 6,59 | 1,66 | 209,0 | 1,50 | 5,14 |
| liquid temp | 0 | 32 | 485,8 | 1659 | 418,1 | 2,18 | 7,45 | 1,88 | 222,8 | 1,54 | 6,24 |
| Tliq= 55/131 | 7,2 | 45 | 626,9 | 2141 | 539,5 | 2,60 | 8,87 | 2,24 | 241,3 | 1,60 | 8,17 |

Model

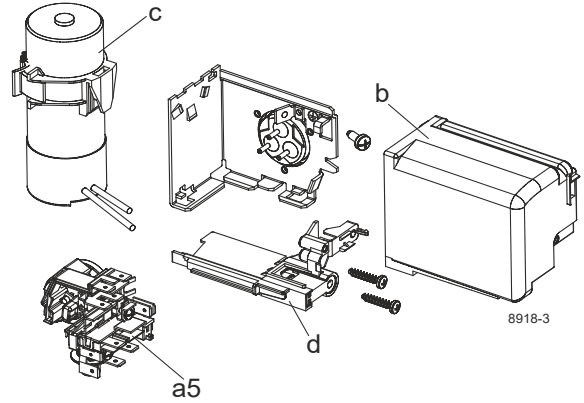
| | | | | | |
|-------------|------------------|----------------------|----------------|-------------|-----------------|
| Designation | KLF4.8CNT | 208-230V/60Hz | Conf. 2 | Sales code: | 106H2512 |
|-------------|------------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSIR |
| Power supply (nominal) | 208-230V/60Hz 1~ |
| Refrigerant | R290 |
| Application | LBP+MBP |
| Voltage range | 198-253V |
| Starting torque | HST |
| Approvals | UL |
| | CCC |
| | CB |
| | KC |

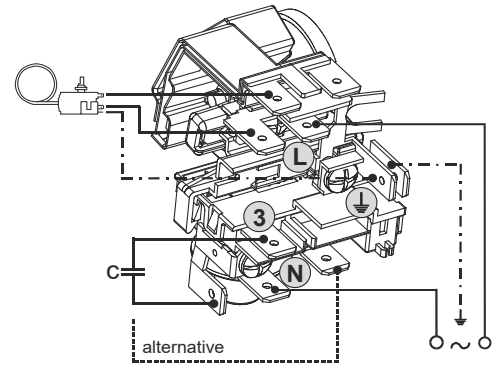
Electrical accessories / wiring diagram

CSIR

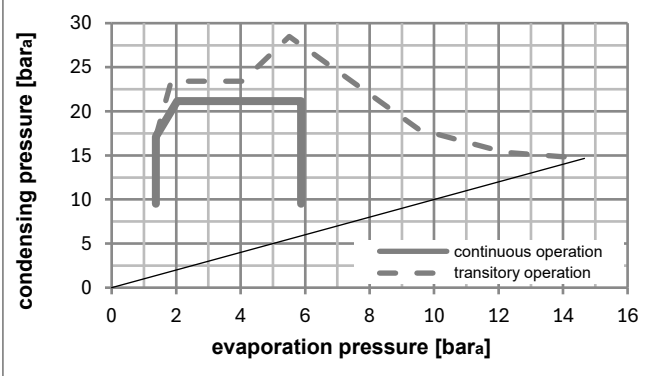
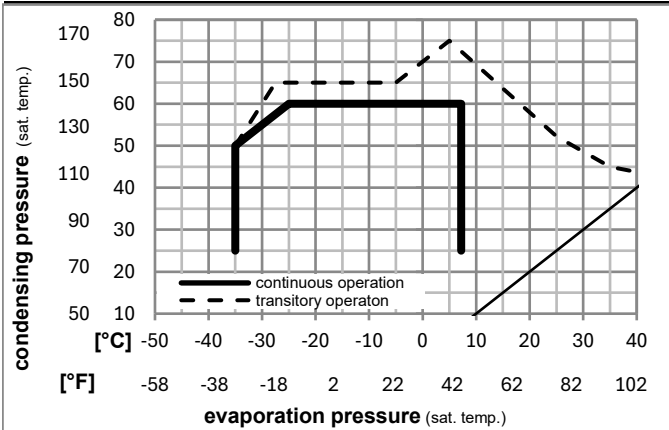


Ambient/ machine room temperatures minimum /maximum

| | |
|---------------------------------|------------------------|
| 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 (already pre-assembled)

| | | |
|----|-------------------------------|----------|
| a5 | current relay (T0089/L6-S2) | 117U7070 |
| c | start capacitor (80µF, 6.3mm) | 117U5003 |
| b | cover terminal board | 10636401 |
| . | screw uni en iso 4757 | 10641201 |

Alternative comp. (already pre-assembled)

| | | |
|---|-----------------|----------|
| . | cable clamp | 16058100 |
| . | screw - uni6954 | 10636000 |
| . | screw - uni6954 | 10636200 |

Model

Designation **KLF4.8CNT** **208-230V/60Hz** Conf. 2 Sales code: **106H2512**

Optimization + standard conditions

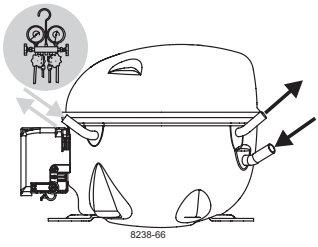
R290, 230V/60Hz, CSIR, fan 3m/s, UL, CCC, CB, KC

| | 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 | 284,7 | 972 | 245,1 | 1,57 | 5,38 | 1,35 | 180,9 | 1,26 | 2,88 | ASHRAE LBP |
| | -10 | 130 | 90 | 90 | | | | | | | | | | |
| | -25 | 55 | 32 | 55 | 213,0 | 727 | 183,3 | 1,23 | 4,19 | 1,05 | 173,8 | 1,24 | 2,65 | cecomaf LBP |
| | -13 | 131 | 90 | 131 | | | | | | | | | | |
| | -35 | 40 | 20 | 40 | 160,5 | 548 | 138,2 | 1,19 | 4,07 | 1,03 | 134,7 | 1,14 | 1,83 | EN12900 LBP |
| | -31 | 104 | 68 | 104 | | | | | | | | | | |
| | -7 | 54 | 35 | 46 | 520,0 | 1776 | 447,5 | 2,09 | 7,13 | 1,80 | 249,1 | 1,47 | 5,93 | ASHRAE MBP |
| | 20 | 130 | 95 | 115 | | | | | | | | | | |
| | -10 | 55 | 32 | 55 | 411,0 | 1404 | 353,7 | 1,73 | 5,92 | 1,49 | 237,1 | 1,43 | 5,20 | cecomaf MBP |
| | 14 | 131 | 90 | 131 | | | | | | | | | | |
| | -10 | 45 | 20 | 45 | 462,7 | 1580 | 398,2 | 2,09 | 7,12 | 1,79 | 221,9 | 1,38 | 5,68 | EN12900 MBP |
| | 14 | 113 | 68 | 113 | | | | | | | | | | |

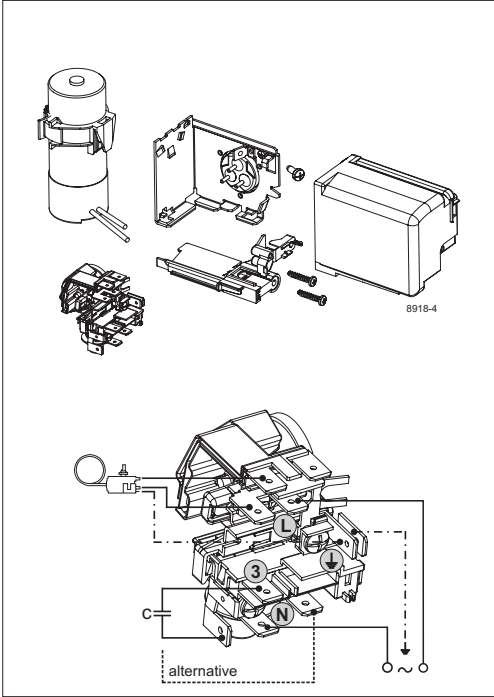
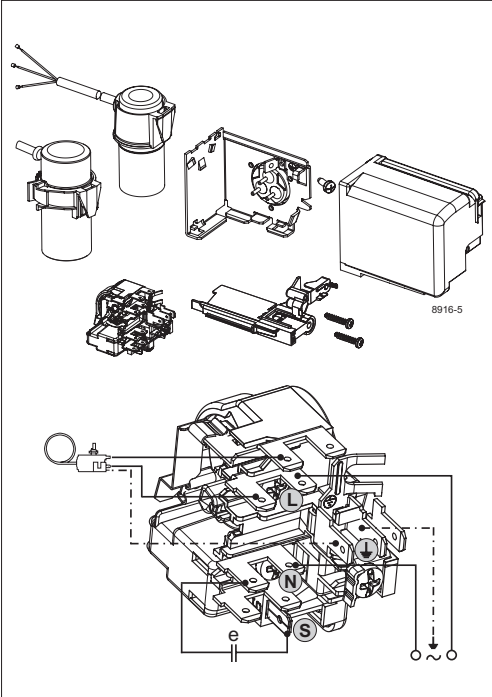
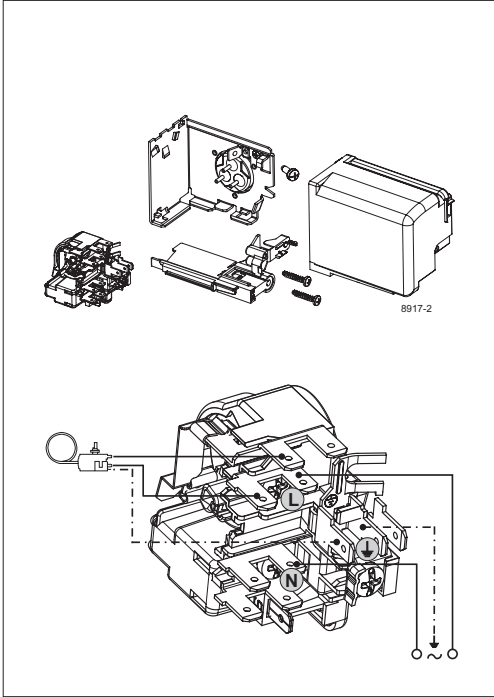
Performance tables

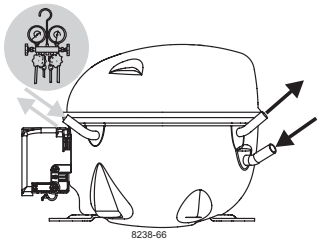
R290, 230V/60Hz, CSIR, fan 3m/s, UL, CCC, CB, KC

| | 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] | -35 | -31 | 152,8 | 522 | 131,5 | 1,13 | 3,85 | 0,97 | 135,7 | 1,15 | 1,71 |
| cond. pressure | -25 | -13 | 253,2 | 865 | 217,9 | 1,48 | 5,05 | 1,27 | 171,1 | 1,23 | 2,86 |
| pc= 45/113 | -15 | 5 | 394,3 | 1347 | 339,3 | 1,91 | 6,53 | 1,65 | 206,1 | 1,33 | 4,49 |
| return gas temp. | -10 | 14 | 481,7 | 1645 | 414,6 | 2,17 | 7,41 | 1,87 | 221,9 | 1,38 | 5,51 |
| RGT= 32/90 | -5 | 23 | 581,2 | 1985 | 500,2 | 2,46 | 8,42 | 2,12 | 235,9 | 1,42 | 6,69 |
| liquid temp | 0 | 32 | 693,5 | 2369 | 596,9 | 2,80 | 9,57 | 2,41 | 247,4 | 1,46 | 8,04 |
| Tliq= 45/113 | 7,2 | 45 | 879,0 | 3002 | 756,5 | 3,40 | 11,61 | 2,92 | 258,6 | 1,50 | 10,33 |
| [°C / °F] | -35 | -31 | 130,2 | 445 | 112,0 | 0,98 | 3,36 | 0,85 | 132,4 | 1,14 | 1,61 |
| cond. pressure | -25 | -13 | 213,0 | 727 | 183,3 | 1,23 | 4,19 | 1,05 | 173,8 | 1,24 | 2,65 |
| pc= 55/131 | -15 | 5 | 334,3 | 1142 | 287,7 | 1,54 | 5,27 | 1,33 | 216,6 | 1,36 | 4,20 |
| return gas temp | -10 | 14 | 411,0 | 1404 | 353,7 | 1,73 | 5,92 | 1,49 | 237,1 | 1,43 | 5,20 |
| RGT= 32/90 | -5 | 23 | 499,3 | 1705 | 429,7 | 1,95 | 6,66 | 1,68 | 256,2 | 1,49 | 6,36 |
| liquid temp | 0 | 32 | 599,8 | 2048 | 516,2 | 2,19 | 7,49 | 1,89 | 273,3 | 1,55 | 7,70 |
| Tliq= 55/131 | 7,2 | 45 | 767,2 | 2620 | 660,2 | 2,61 | 8,93 | 2,25 | 293,4 | 1,62 | 9,99 |



KL Compressors

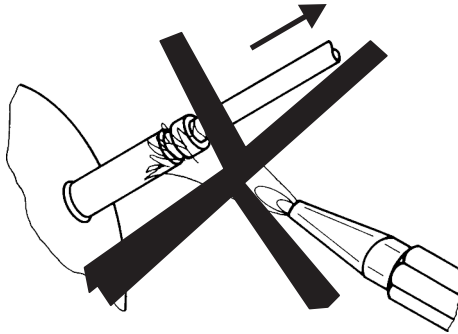




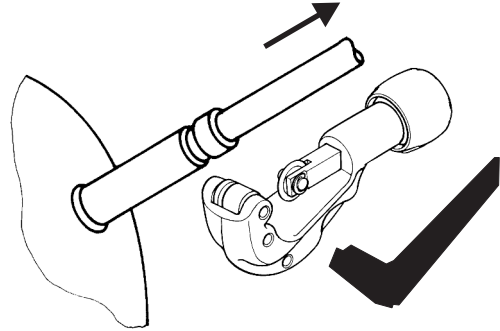
KL Compressors



Service/Repair – R290



8545



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