

## Model

|             |                  |                         |             |                 |
|-------------|------------------|-------------------------|-------------|-----------------|
| Designation | <b>KLF4.8GNH</b> | <b>115-127V/60Hz 1~</b> | Sales code: | <b>106H3511</b> |
|-------------|------------------|-------------------------|-------------|-----------------|

## Compressor design

|                            |                     |                       |                    |
|----------------------------|---------------------|-----------------------|--------------------|
| Oil type                   | Polyolester         | Refrigerant(s)        | <b>R290</b>        |
| Oil viscosity              | 10,4cSt             | Displacement          | 4,8cm³ / 0,29cu.in |
| Oil quantity               | 170cm³ / 5,7fl.oz   | Compressors on pallet | 100                |
| Refr. charge - tech. limit | 200g / 7,1oz        |                       |                    |
| Free gas volume comp.      | 1615cm³ / 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 KLF4.8GNH

|                        |                                                                   |
|------------------------|-------------------------------------------------------------------|
|                        | <b>Conf. 1</b>                                                    |
| Motorconfiguration     | CSIR                                                              |
| Power supply (nominal) | 115-127V/60Hz                                                     |
| Number of phases       | 1                                                                 |
| Voltage range          | 103-135V                                                          |
| Approvals              | UL                                                                |
| Starting torque        | HST                                                               |
| Note                   | Electrical equipment is included and pre-assembled to compressor. |

## Applications with KLF4.8GNH

|                         |                |
|-------------------------|----------------|
|                         | <b>Conf. 1</b> |
| Refrigerant             | R290           |
| Application             | LBP+MBP+HBP    |
| System cooling          | fan 3m/s       |
| Hot gas defrost         | OK             |
| Long interval pull down | OK             |

## Electrical data - Configurations with KLF4.8GNH

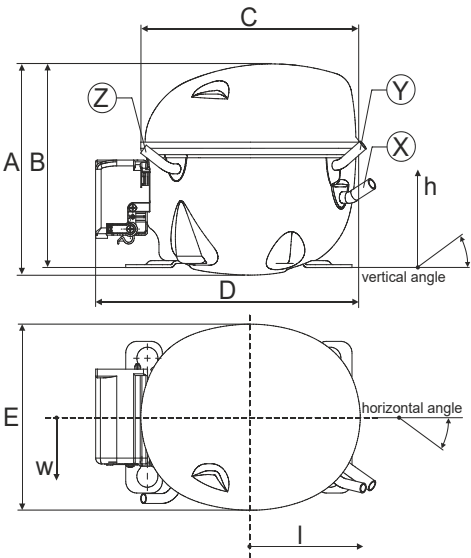
|                                    |                |
|------------------------------------|----------------|
|                                    | <b>Conf. 1</b> |
| Starting device type               | relay          |
| Run capacitor                      | -/-            |
| Start capacitor   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

|             |           |                  |                      |
|-------------|-----------|------------------|----------------------|
| Model       |           |                  |                      |
| Designation | KLF4.8GNH | 115-127V/60Hz 1~ | Sales code: 106H3511 |

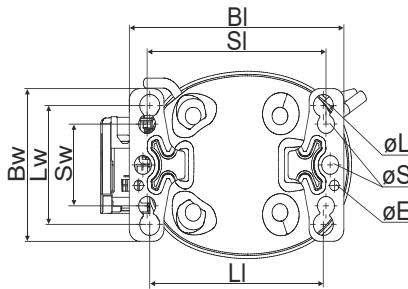
Compressor dimensions

|         |                   |                |
|---------|-------------------|----------------|
| Housing | A Height          | 160mm / 6,3in  |
|         | B Height          | 175mm / 6,89in |
|         | C Length shell    | 182mm / 7,17in |
|         | D Length w. cover | 198mm / 7,8in  |
|         | E Width           | 240mm / 9,45in |

| Connectors                 | Suction<br>X | Discharge<br>Y | Process<br>Z |
|----------------------------|--------------|----------------|--------------|
| Diameter [mm]              | øi 6,51-6,69 | øi 6,41-6,59   | øi 6,41-6,59 |
| (i:inside, o:outside) [in] | øi 0,26-0,26 | 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]        | 122/74/61    | 117/107/66     | -88/101/71   |
| [in]                       | 4,8/2,9/2,4  | 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          |

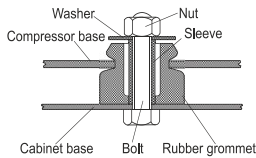


Compressor fixation

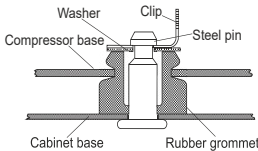


| Baseplate   | [mm]  | [inch] |
|-------------|-------|--------|
| BI          | 204   | 8.03   |
| Bw          | 132   | 5.2    |
| øE          | ø 9.7 | ø 0.38 |
| Large holes | [mm]  | [inch] |
| LI          | 165   | 6.5    |
| Lw          | 101.6 | 4      |
| øL          | ø 19  | ø 0.75 |
| Small holes | [mm]  | [inch] |
| SI          | 170   | 6.7    |
| Sw          | 70    | 2.76   |
| øS          | ø 16  | ø 0.63 |

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

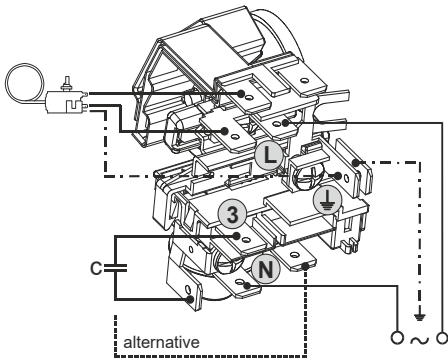
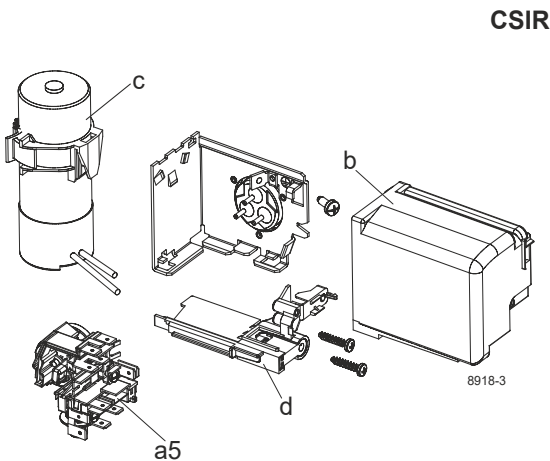
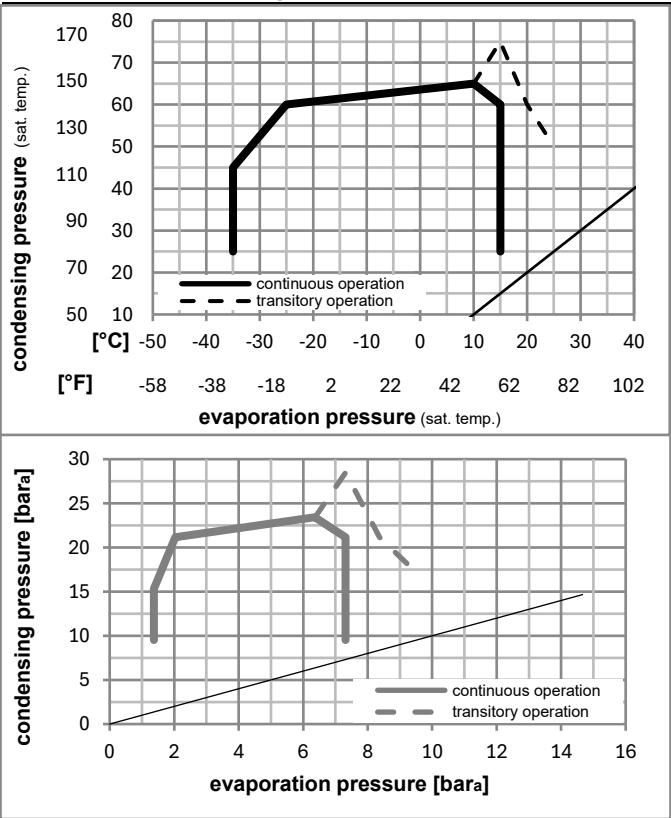
| Model       |           |               |         |                      |
|-------------|-----------|---------------|---------|----------------------|
| Designation | KLF4.8GNH | 115-127V/60Hz | Conf. 1 | Sales code: 106H3511 |

| Configuration          | Electrical accessories / wiring diagram |  |  |  |
|------------------------|-----------------------------------------|--|--|--|
| Motorconfiguration     | CSIR                                    |  |  |  |
| Power supply (nominal) | 115-127V/60Hz 1~                        |  |  |  |
| Refrigerant            | R290                                    |  |  |  |
| Application            | LBP+MBP+HBP                             |  |  |  |
| Voltage range          | 103-135V                                |  |  |  |
| Starting torque        | HST                                     |  |  |  |
| Approvals              | UL                                      |  |  |  |

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 (incl. and pre. assembl.)

|      |                                    |          |
|------|------------------------------------|----------|
| a5   | current relay (T1217/L6-S5)        | 117U7072 |
| c    | start capacitor (240 $\mu$ F)      | 117U5005 |
| b, d | cover + clamp + screws(5VA-compl.) | 103N0600 |

Alternative comp.

|      |                                    |          |
|------|------------------------------------|----------|
| b, d | 100x cover + clamp + screws(5VA)   | 103N2060 |
| b, d | cover + clamp + screws(5VA) in bag | 103N1060 |

| Model                              |           |               |         |                                     |          |
|------------------------------------|-----------|---------------|---------|-------------------------------------|----------|
| Designation                        | KLF4.8GNH | 115-127V/60Hz | Conf. 1 | Sales code:                         | 106H3511 |
| Optimization + standard conditions |           |               |         | R290, 115V/60Hz, CSIR, fan 3m/s, UL |          |

| Evaporating pressure (saturation temperature) |     | Condensing pressure (saturation temperature) |      |  |  | Return gas temp. |  | Liquid temp. |  | Cooling capacity |         |          | COP   |  | EER      |           |  | Power consumption |  | Current consumption |  |        | Ref. mass flow |  |             |
|-----------------------------------------------|-----|----------------------------------------------|------|--|--|------------------|--|--------------|--|------------------|---------|----------|-------|--|----------|-----------|--|-------------------|--|---------------------|--|--------|----------------|--|-------------|
| pe                                            | pc  | RGT                                          | Tliq |  |  |                  |  |              |  | [W]              | [Btu/h] | [kcal/h] | [W/W] |  | [Btu/Wh] | [kcal/Wh] |  | P1                |  | I                   |  | m      |                |  |             |
| [°C]                                          |     |                                              |      |  |  |                  |  |              |  |                  |         |          |       |  |          |           |  | [W]               |  | [A]                 |  | [kg/h] |                |  |             |
| [°F]                                          |     |                                              |      |  |  |                  |  |              |  |                  |         |          |       |  |          |           |  |                   |  |                     |  |        |                |  |             |
| -23                                           | 54  | 32                                           | 32   |  |  |                  |  |              |  | 282,1            | 963     | 242,7    | 1,60  |  | 5,45     | 1,37      |  | 176,8             |  | 2,19                |  | 2,86   |                |  | ASHRAE LBP  |
| -10                                           | 130 | 90                                           | 90   |  |  |                  |  |              |  |                  |         |          |       |  |          |           |  |                   |  |                     |  |        |                |  |             |
| -7                                            | 54  | 35                                           | 46   |  |  |                  |  |              |  | 506,5            | 1730    | 435,9    | 2,12  |  | 7,25     | 1,83      |  | 238,7             |  | 2,52                |  | 5,78   |                |  | ASHRAE MBP  |
| 20                                            | 130 | 95                                           | 115  |  |  |                  |  |              |  |                  |         |          |       |  |          |           |  |                   |  |                     |  |        |                |  |             |
| 7,2                                           | 54  | 35                                           | 46   |  |  |                  |  |              |  | 821,5            | 2806    | 707,0    | 2,76  |  | 9,42     | 2,37      |  | 297,9             |  | 2,90                |  | 9,58   |                |  | ASHRAE HBP  |
| 45                                            | 130 | 95                                           | 115  |  |  |                  |  |              |  |                  |         |          |       |  |          |           |  |                   |  |                     |  |        |                |  |             |
| -35                                           | 40  | 20                                           | 40   |  |  |                  |  |              |  | 153,7            | 525     | 132,2    | 1,17  |  | 4,01     | 1,01      |  | 130,9             |  | 2,02                |  | 1,76   |                |  | EN12900 LBP |
| -31                                           | 104 | 68                                           | 104  |  |  |                  |  |              |  |                  |         |          |       |  |          |           |  |                   |  |                     |  |        |                |  |             |
| -10                                           | 45  | 20                                           | 45   |  |  |                  |  |              |  | 443,7            | 1515    | 381,8    | 2,10  |  | 7,19     | 1,81      |  | 210,8             |  | 2,37                |  | 5,45   |                |  | EN12900 MBP |
| 14                                            | 113 | 68                                           | 113  |  |  |                  |  |              |  |                  |         |          |       |  |          |           |  |                   |  |                     |  |        |                |  |             |
| 5                                             | 50  | 20                                           | 50   |  |  |                  |  |              |  | 700,0            | 2391    | 602,4    | 2,52  |  | 8,60     | 2,17      |  | 278,0             |  | 2,77                |  | 9,32   |                |  | EN12900 HBP |
| 41                                            | 122 | 68                                           | 122  |  |  |                  |  |              |  |                  |         |          |       |  |          |           |  |                   |  |                     |  |        |                |  |             |

| Performance tables |      |      |                  |         |          |       |  |          |           | R290, 115V/60Hz, CSIR, fan 3m/s, UL |      |        |  |
|--------------------|------|------|------------------|---------|----------|-------|--|----------|-----------|-------------------------------------|------|--------|--|
|                    | 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]          | -23  | -10  | 267,4            | 913     | 230,2    | 1,61  |  | 5,50     | 1,39      | 166,1                               | 2,14 | 3,02   |  |
| cond. pressure     | -23  | -10  | 267,4            | 913     | 230,2    | 1,61  |  | 5,50     | 1,39      | 166,1                               | 2,14 | 3,02   |  |
| pc= 45/113         | -15  | 5    | 380,6            | 1300    | 327,6    | 1,97  |  | 6,73     | 1,70      | 193,2                               | 2,27 | 4,33   |  |
| return gas temp.   | -9   | 15   | 471,6            | 1611    | 405,9    | 2,22  |  | 7,57     | 1,91      | 212,8                               | 2,38 | 5,40   |  |
| RGT= 32/90         | 0    | 32   | 661,7            | 2260    | 569,4    | 2,68  |  | 9,15     | 2,31      | 246,9                               | 2,58 | 7,67   |  |
| liquid temp        | 4,4  | 40   | 769,0            | 2626    | 661,8    | 2,93  |  | 10,00    | 2,52      | 262,6                               | 2,67 | 8,99   |  |
| Tliq= 45/113       | 15   | 59   | 1077,8           | 3681    | 927,6    | 3,63  |  | 12,40    | 3,13      | 296,7                               | 2,89 | 12,88  |  |
| [°C / °F]          | -23  | -10  | 228,3            | 780     | 196,5    | 1,29  |  | 4,40     | 1,11      | 177,4                               | 2,19 | 2,85   |  |
| cond. pressure     | -23  | -10  | 228,3            | 780     | 196,5    | 1,29  |  | 4,40     | 1,11      | 177,4                               | 2,19 | 2,85   |  |
| pc= 55/131         | -15  | 5    | 330,9            | 1130    | 284,7    | 1,60  |  | 5,48     | 1,38      | 206,2                               | 2,34 | 4,16   |  |
| return gas temp    | -9   | 15   | 411,9            | 1407    | 354,5    | 1,81  |  | 6,17     | 1,55      | 228,0                               | 2,46 | 5,21   |  |
| RGT= 32/90         | 0    | 32   | 579,8            | 1980    | 499,0    | 2,16  |  | 7,39     | 1,86      | 267,9                               | 2,70 | 7,45   |  |
| liquid temp        | 4,4  | 40   | 674,5            | 2303    | 580,5    | 2,35  |  | 8,02     | 2,02      | 287,1                               | 2,83 | 8,74   |  |
| Tliq= 55/131       | 15   | 59   | 947,4            | 3236    | 815,3    | 2,85  |  | 9,74     | 2,45      | 332,1                               | 3,13 | 12,58  |  |