

## Model

|             |                   |                  |             |                 |
|-------------|-------------------|------------------|-------------|-----------------|
| Designation | <b>KLF4.0CNHS</b> | 115-127V/60Hz 1~ | Sales code: | <b>106H3403</b> |
|-------------|-------------------|------------------|-------------|-----------------|

## Compressor design

|                            |   |                       |                              |
|----------------------------|---|-----------------------|------------------------------|
| Oil type                   | Polyolester   | Refrigerant(s)        | <b>R290</b>                  |
| Oil viscosity              | 10,4cSt   | Displacement          | 4cm <sup>3</sup> / 0,24cu.in |
| Oil quantity               | 170cm <sup>3</sup> / 5,7fl.oz   | Compressors on pallet | 100                          |
| Refr. charge - tech. limit | 200g / 7,1oz  |                       |                              |
| Free gas volume comp.      | 1630cm <sup>3</sup> / 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   |                       |                              |
| Additional note            | Very good robustness against liquid intake.<br>Ice-cube maker optimization - indirect suction intake. |                       |                              |



## General - Configurations with KLF4.0CNHS

### Conf. 1

|                        |               |
|------------------------|---------------|
| Motorconfiguration     | CSIR          |
| Power supply (nominal) | 115-127V/60Hz |
| Number of phases       | 1             |
| Voltage range          | 95-140V       |
| Approvals              | UL, CCC       |
| Starting torque        | HST           |
| Note                   | - / -         |

## Applications with KLF4.0CNHS

### Conf. 1

|                         |          |
|-------------------------|----------|
| Refrigerant             | R290     |
| Application             | LBP+MBP  |
| System cooling          | fan 3m/s |
| Hot gas defrost         | OK       |
| Long interval pull down | OK       |

## Electrical data - Configurations with KLF4.0CNHS

### Conf. 1

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

## Model

Designation

**KLF4.0CNHS**

115-127V/60Hz 1~

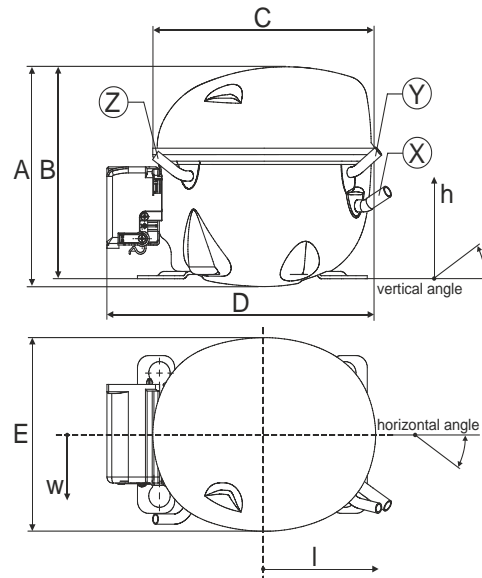
Sales code:

**106H3403**

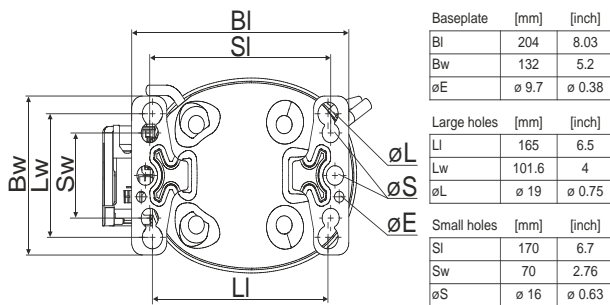
## Compressor dimensions

| 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  |

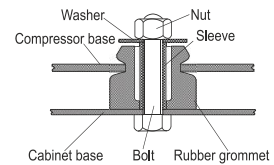
| Connectors            |      | Suction      | Discharge    | Process      |
|-----------------------|------|--------------|--------------|--------------|
|                       |      | X            | Y            | Z            |
| Diameter              | [mm] | øi 8,11-8,29 | øi 6,41-6,59 | øi 6,41-6,59 |
| (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          |



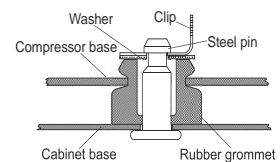
## Compressor fixation



### 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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## 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

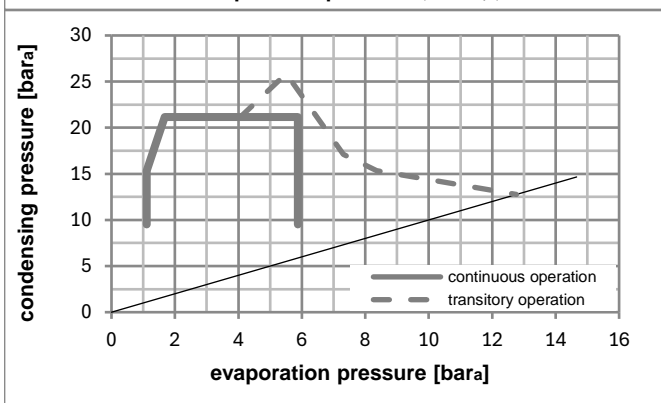
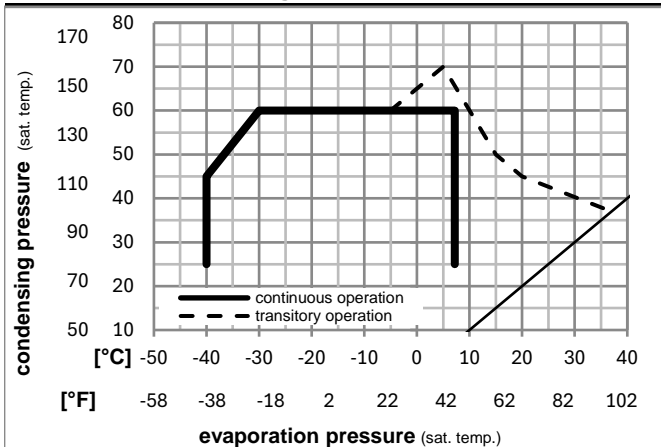
Ambient temperature range: 10 - 43°C / 50 - 110°F

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-compl.) | 103N0600 |

## Alternative components

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

### Model

Designation **KLF4.0CNHS 115-127V/60Hz** Conf. 1 Sales code: **106H3403**

### Optimization + standard conditions

R290, 115V/60Hz, CSIR, 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<br>m<br>[kg/h] |  |
|------|---|-----|-----|------|--|---------|----------|------------------|----------|-----------|--------------|------|------------------|-------------|--|-----|-----|-------------------|--|--|-------------------------------|--|
|      | pe  | pc  | RGT | Tliq | [W]  | [Btu/h] | [kcal/h] | [W/W]            | [Btu/Wh] | [kcal/Wh] | [W]          | I    |                  |             |  |     |     |                   |  |  |                               |  |
| [°C] |   |     |     |      |  |         |          |                  |          |           |              | [A]  |                  |             |  |     |     |                   |  |  |                               |  |
| [°F] | -23   | 54  | 32  | 32   | 220,0  | 751     | 189,3    | 1,45             | 4,96     | 1,25      | 151,5        | 1,90 | 2,23             | ASHRAE LBP  |  |     |     |                   |  |  |                               |  |
| [°C] | -25   | 55  | 32  | 55   | 163,5  | 558     | 140,7    | 1,11             | 3,80     | 0,96      | 147,0        | 1,87 | 2,04             | cecomaf LBP |  |     |     |                   |  |  |                               |  |
| [°F] | -13   | 131 | 90  | 131  |  |         |          |                  |          |           |              |      |                  |             |  |     |     |                   |  |  |                               |  |
| [°C] | -35   | 40  | 20  | 40   | 122,7  | 419     | 105,6    | 1,02             | 3,49     | 0,88      | 120,0        | 1,71 | 1,40             | EN12900 LBP |  |     |     |                   |  |  |                               |  |
| [°F] | -31   | 104 | 68  | 104  |  |         |          |                  |          |           |              |      |                  |             |  |     |     |                   |  |  |                               |  |
| [°C] | -7  | 54  | 35  | 46   | 403,8  | 1379    | 347,5    | 2,04             | 6,96     | 1,75      | 198,1        | 2,22 | 4,61             | ASHRAE MBP  |  |     |     |                   |  |  |                               |  |
| [°F] | 20  | 130 | 95  | 115  |  |         |          |                  |          |           |              |      |                  |             |  |     |     |                   |  |  |                               |  |
| [°C] | -10   | 55  | 32  | 55   | 320,0  | 1093    | 275,4    | 1,68             | 5,73     | 1,44      | 190,6        | 2,17 | 4,05             | cecomaf MBP |  |     |     |                   |  |  |                               |  |
| [°F] | 14  | 131 | 90  | 131  |  |         |          |                  |          |           |              |      |                  |             |  |     |     |                   |  |  |                               |  |
| [°C] | -10   | 45  | 20  | 45   | 362,8  | 1239    | 312,2    | 2,09             | 7,12     | 1,79      | 174,0        | 2,05 | 4,45             | 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] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W]   | [A]  | [kg/h] |
| [°C / °F]        | -34  | -30  | 118,4            | 404     | 101,9    | 0,97  | 3,31     | 0,83      | 122,1 | 1,73 | 1,33   |
| cond. pressure   | -34  | -30  | 118,4            | 404     | 101,9    | 0,97  | 3,31     | 0,83      | 122,1 | 1,73 | 1,33   |
| pc= 45/113       | -23  | -10  | 215,0            | 734     | 185,0    | 1,49  | 5,08     | 1,28      | 144,7 | 1,86 | 2,43   |
| return gas temp. | -15  | 5    | 309,4            | 1057    | 266,3    | 1,89  | 6,47     | 1,63      | 163,4 | 1,98 | 3,52   |
| RGT= 32/90       | -4   | 25   | 475,1            | 1623    | 408,9    | 2,57  | 8,76     | 2,21      | 185,2 | 2,13 | 5,48   |
| liquid temp      | 0    | 32   | 546,1            | 1865    | 470,0    | 2,86  | 9,77     | 2,46      | 190,8 | 2,17 | 6,33   |
| Tliq= 45/113     | 7,2  | 45   | 698,7            | 2386    | 601,3    | 3,54  | 12,10    | 3,05      | 197,1 | 2,22 | 8,21   |
| [°C / °F]        | -34  | -30  | 89,7             | 306     | 77,2     | 0,74  | 2,53     | 0,64      | 121,2 | 1,72 | 1,11   |
| cond. pressure   | -34  | -30  | 89,7             | 306     | 77,2     | 0,74  | 2,53     | 0,64      | 121,2 | 1,72 | 1,11   |
| pc= 55/131       | -23  | -10  | 178,1            | 608     | 153,2    | 1,17  | 4,00     | 1,01      | 151,9 | 1,90 | 2,22   |
| return gas temp  | -15  | 5    | 260,9            | 891     | 224,5    | 1,48  | 5,05     | 1,27      | 176,5 | 2,07 | 3,28   |
| RGT= 32/90       | -4   | 25   | 404,0            | 1380    | 347,7    | 1,96  | 6,70     | 1,69      | 206,0 | 2,28 | 5,16   |
| liquid temp      | 0    | 32   | 465,1            | 1588    | 400,2    | 2,17  | 7,42     | 1,87      | 214,2 | 2,35 | 5,97   |
| Tliq= 55/131     | 7,2  | 45   | 596,5            | 2037    | 513,4    | 2,65  | 9,05     | 2,28      | 225,2 | 2,43 | 7,77   |