

## Model

|             |               |                  |             |                 |
|-------------|---------------|------------------|-------------|-----------------|
| Designation | <b>NF10FX</b> | 115-127V/60Hz 1~ | Sales code: | <b>105G5946</b> |
|-------------|---------------|------------------|-------------|-----------------|

## Compressor design

|                            |                                 |                       |                                  |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type                   | Polyolester                     | Refrigerant(s)        | <b>R134a</b>                     |
| Oil viscosity              | 32cST                           | Displacement          | 10,09cm <sup>3</sup> / 0,62cu.in |
| Oil quantity               | 298cm <sup>3</sup> / 10,1fl.oz  | Compressors on pallet | 80                               |
| Refr. charge - tech. limit | 460g / 16,2oz                   |                       |                                  |
| Free gas volume comp.      | 2360cm <sup>3</sup> / 79,8fl.oz |                       |                                  |
| Weight                     | 10kg / 22lbs                    |                       |                                  |
| Motor protection           | external                        |                       |                                  |
| Winding resistance main    | 1,62Ω (at 25°C)                 |                       |                                  |
| Winding resistance aux     | 4,9Ω (at 25°C)                  |                       |                                  |
| Max. winding temp.         | 125°C / 257°F                   |                       |                                  |
| Max. discharge temp.       | 110°C / 230°F                   |                       |                                  |



## General - Configurations with NF10FX

|                        |                |
|------------------------|----------------|
|                        | <b>Conf. 1</b> |
| Motorconfiguration     | CSIR           |
| Power supply (nominal) | 115-127V/60Hz  |
| Number of phases       | 1              |
| Voltage range          | 95-135V        |
| Approvals              | UL             |
| Starting torque        | HST            |
| Note                   | - / -          |

## Applications with NF10FX

|                         |                |
|-------------------------|----------------|
|                         | <b>Conf. 1</b> |
| Refrigerant             | R134a          |
| Application             | LBP+MBP        |
| System cooling          | fan 1,5m/s     |
| Hot gas defrost         | OK             |
| Long interval pull down | OK             |

## Electrical data - Configurations with NF10FX

|                                    |                |
|------------------------------------|----------------|
|                                    | <b>Conf. 1</b> |
| Starting device type               | relay          |
| Run capacitor                      | -/-            |
| Start capacitor                    | 320μF          |
| LRA (locked rotor amps / 4s/ U(N)) | 30,8A          |
| RLA (rated load amps / 1s/ U(N))   | 4,9A           |
| Cut in current (U(N))              | 30,8A          |

## Model

Designation

**NF10FX**

115-127V/60Hz 1~

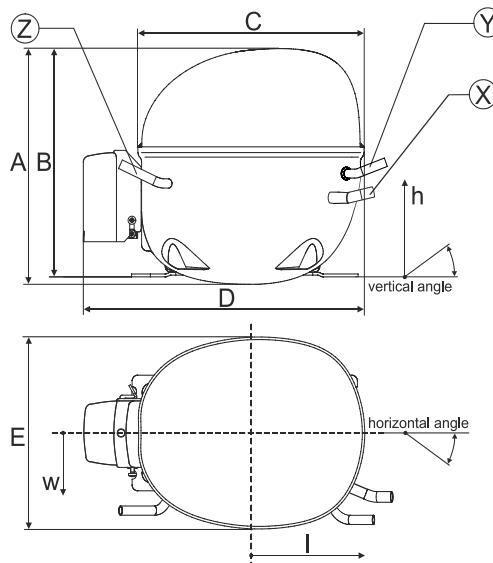
Sales code:

**105G5946**

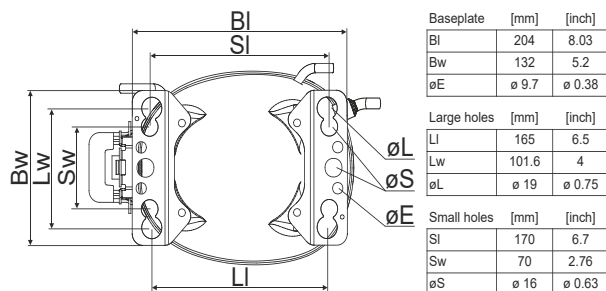
## Compressor dimensions

| Housing | A Height          | 197mm / 7,76in |
|---------|-------------------|----------------|
|         | B Height          | 191mm / 7,52in |
|         | C Length shell    | 205mm / 8,07in |
|         | D Length w. cover | 254mm / 10in   |
|         | E Width           | 166mm / 6,54in |

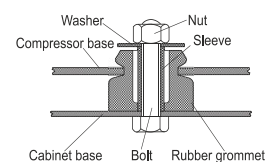
| Connectors            |      | Suction      | Discharge    | Process      |
|-----------------------|------|--------------|--------------|--------------|
|                       |      | X            | Y            | Z            |
| Diameter              | [mm] | øi 8,11-8,29 | øi 6,41-6,59 | øi 6,41-6,59 |
| (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°  | 0°           | 0°           | 0°           |
| Vertical angle        | ±2°  | 15°          | 35°          | 155°         |
| Position l/h/w        | [mm] | 126/76/78    | 133/103/54   | -107/94/72   |
|                       | [in] | 4,9/3/3,1    | 5,2/4/2,1    | -4,2/3,7/2,8 |
| Straight tube l.      | [mm] | 12           | 12           | 12           |
|                       | [in] | 0,5          | 0,5          | 0,5          |



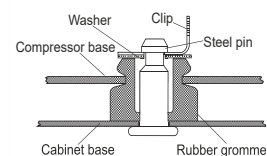
## Compressor fixation



## 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

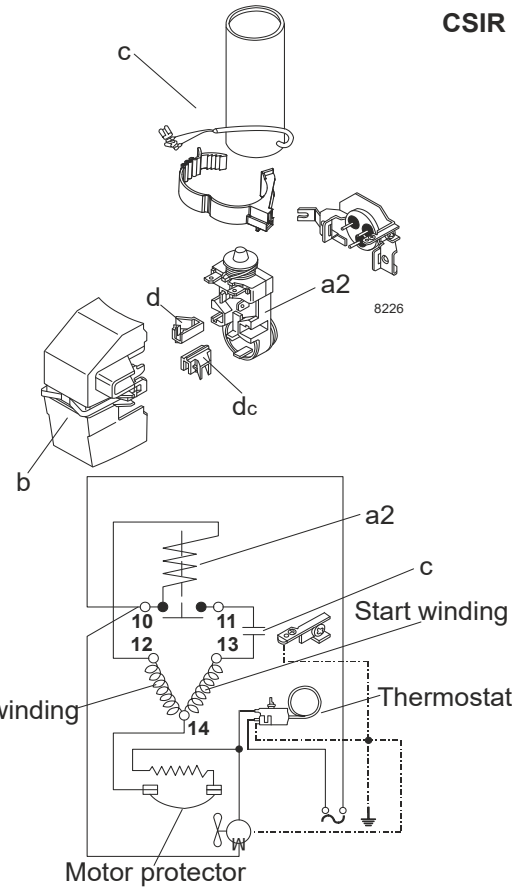
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## Configuration

|                        |                  |
|------------------------|------------------|
| Motor configuration    | CSIR             |
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| Application            | LBP+MBP          |
| Voltage range          | 95-135V          |
| Starting torque        | HST              |
| Approvals              | UL               |

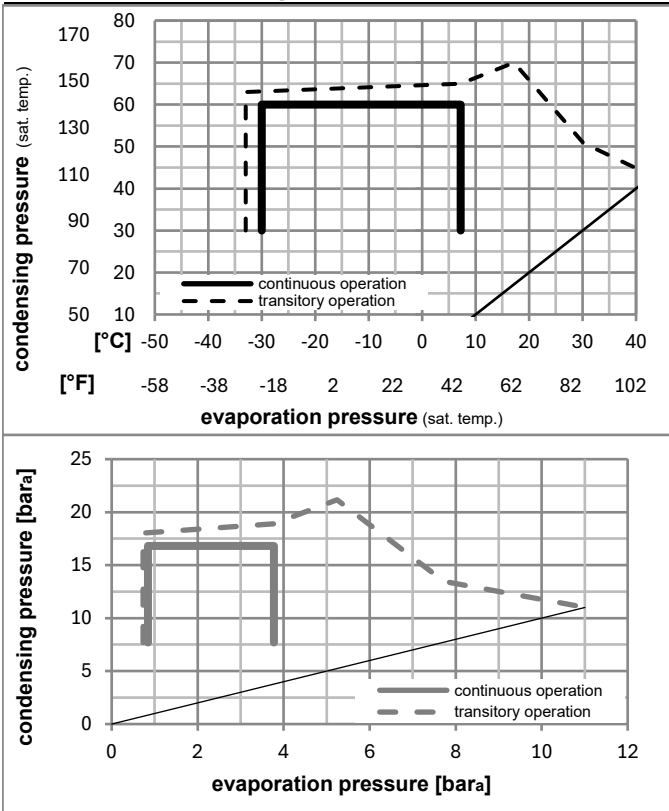
## Electrical accessories / wiring diagram



## 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

|      |                            |          |
|------|----------------------------|----------|
| a2   | current relay (MRT22AFZ-6) | 117U4129 |
| c    | start capacitor (320µF)    | 117U5022 |
| b    | plastic cover              | 117U1021 |
| d/dc | cord relief                | 117U0349 |
| dc   | cord relief                | 117U0349 |

## Model

Designation **NF10FX** **115-127V/60Hz** Conf. 1 Sales code: **105G5946**

## Optimization + standard conditions

R134a, 115V/60Hz, CSIR, fan 3m/s, UL

|      | Evaporating pressure (saturation temperature) |     |     |      | Cooling capacity |         |          | COP  | EER  | P1   | Power consumption |        | ASHRAE LBP |             |
|------|---|-----|-----|------|------------------|---------|----------|------|------|------|-------------------|--------|------------|-------------|
|      | pe  | pc  | RGT | Tliq | [W]              | [Btu/h] | [kcal/h] |      |      |      | I                 | m      |            |             |
| [°C] |   |     |     |      |                  |         |          |      |      |      | [A]               | [kg/h] |            |             |
| [°F] |   |     |     |      |                  |         |          |      |      |      |                   |        |            |             |
|      | -23   | 54  | 32  | 32   | 306,9            | 1048    | 264,1    | 1,17 | 4,01 | 1,01 | 261,4             | 3,71   | 5,96       | ASHRAE LBP  |
|      | -10   | 130 | 90  | 90   |                  |         |          |      |      |      |                   |        |            |             |
|      | -25   | 55  | 32  | 55   | 226,6            | 774     | 195,0    | 0,91 | 3,09 | 0,78 | 250,4             | 3,64   | 5,42       | cecomaf LBP |
|      | -13   | 131 | 90  | 131  |                  |         |          |      |      |      |                   |        |            |             |
|      | -35   | 40  | 20  | 40   | 144,9            | 495     | 124,7    | 0,81 | 2,76 | 0,70 | 179,3             | 3,33   | 3,18       | EN12900 LBP |
|      | -31   | 104 | 68  | 104  |                  |         |          |      |      |      |                   |        |            |             |
|      | -7  | 54  | 35  | 46   | 626,9            | 2141    | 539,5    | 1,60 | 5,48 | 1,38 | 390,7             | 4,55   | 13,68      | ASHRAE MBP  |
|      | 20  | 130 | 95  | 115  |                  |         |          |      |      |      |                   |        |            |             |
|      | -10   | 55  | 32  | 55   | 488,2            | 1667    | 420,2    | 1,34 | 4,58 | 1,15 | 363,8             | 4,37   | 11,81      | cecomaf MBP |
|      | 14  | 131 | 90  | 131  |                  |         |          |      |      |      |                   |        |            |             |
|      | -10   | 45  | 20  | 45   | 541,0            | 1848    | 465,6    | 1,56 | 5,32 | 1,34 | 347,2             | 4,24   | 12,66      | EN12900 MBP |
|      | 14  | 113 | 68  | 113  |                  |         |          |      |      |      |                   |        |            |             |

## Performance tables

R134a, 115V/60Hz, CSIR, fan 3m/s, UL

|                  | pe   |      | Cooling capacity |         |          | COP  | EER  | P1   | I     | m    |       |
|------------------|------|------|------------------|---------|----------|------|------|------|-------|------|-------|
|                  | [°C] | [°F] | [W]              | [Btu/h] | [kcal/h] |      |      |      |       |      |       |
| [°C / °F]        | -30  | -22  | 189,5            | 647     | 163,1    | 0,89 | 3,05 | 0,77 | 212,3 | 3,46 | 4,10  |
| cond. pressure   | -23  | -10  | 284,2            | 971     | 244,6    | 1,12 | 3,81 | 0,96 | 254,9 | 3,69 | 6,16  |
| pc= 45/113       | -15  | 5    | 441,6            | 1508    | 380,1    | 1,42 | 4,84 | 1,22 | 311,9 | 4,02 | 9,63  |
| return gas temp. | -9   | 15   | 575,9            | 1967    | 495,6    | 1,64 | 5,60 | 1,41 | 351,1 | 4,26 | 12,61 |
| RGT= 32/90       | -4   | 25   | 737,6            | 2519    | 634,8    | 1,89 | 6,45 | 1,62 | 390,7 | 4,53 | 16,24 |
| liquid temp      | 0    | 32   | 868,9            | 2967    | 747,8    | 2,08 | 7,09 | 1,79 | 418,3 | 4,73 | 19,21 |
| Tliq= 45/113     | 7,2  | 45   | 1156,7           | 3950    | 995,4    | 2,47 | 8,43 | 2,13 | 468,4 | 5,13 | 25,84 |
| [°C / °F]        | -30  | -22  | 165,4            | 565     | 142,4    | 0,76 | 2,59 | 0,65 | 218,5 | 3,43 | 3,94  |
| cond. pressure   | -23  | -10  | 249,4            | 852     | 214,6    | 0,95 | 3,25 | 0,82 | 261,8 | 3,72 | 5,97  |
| pc= 55/131       | -15  | 5    | 385,5            | 1317    | 331,8    | 1,19 | 4,07 | 1,03 | 323,5 | 4,11 | 9,28  |
| return gas temp  | -9   | 15   | 500,7            | 1710    | 430,9    | 1,36 | 4,64 | 1,17 | 368,4 | 4,40 | 12,11 |
| RGT= 32/90       | -4   | 25   | 639,4            | 2184    | 550,3    | 1,54 | 5,26 | 1,32 | 415,6 | 4,72 | 15,56 |
| liquid temp      | 0    | 32   | 752,3            | 2569    | 647,5    | 1,67 | 5,71 | 1,44 | 449,6 | 4,95 | 18,40 |
| Tliq= 55/131     | 7,2  | 45   | 1000,9           | 3418    | 861,4    | 1,95 | 6,65 | 1,68 | 514,2 | 5,40 | 24,76 |