

## Model

|             |                  |                  |             |                 |
|-------------|------------------|------------------|-------------|-----------------|
| Designation | <b>NF6.1FX.2</b> | 115-127V/60Hz 1~ | Sales code: | <b>105G5631</b> |
|-------------|------------------|------------------|-------------|-----------------|

## Compressor design

|                            |                                 |                       |                                 |
|----------------------------|---------------------------------|-----------------------|---------------------------------|
| Oil type                   | Polyolester                     | Refrigerant(s)        | <b>R134a, R513A, 0</b>          |
| Oil viscosity              | 32cST                           | Displacement          | 6,13cm <sup>3</sup> / 0,37cu.in |
| Oil quantity               | 270cm <sup>3</sup> / 9,1fl.oz   | Compressors on pallet | 80                              |
| Refr. charge - tech. limit | 400g / 14,1oz                   |                       |                                 |
| Free gas volume comp.      | 2360cm <sup>3</sup> / 79,8fl.oz |                       |                                 |
| Weight                     | 10kg / 22lbs                    |                       |                                 |
| Motor protection           | external                        |                       |                                 |
| Winding resistance main    | 2Ω (at 25°C)                    |                       |                                 |
| Winding resistance aux     | 3,1Ω (at 25°C)                  |                       |                                 |
| Max. winding temp.         | 125°C / 257°F                   |                       |                                 |
| Max. discharge temp.       | 130°C / 266°F                   |                       |                                 |



## General - Configurations with NF6.1FX.2

|                        | <b>Conf. 1</b> | <b>Conf. 2</b> |
|------------------------|----------------|----------------|
| Motorconfiguration     | CSIR           | CSIR           |
| Power supply (nominal) | 115V/60Hz      | 115V/60Hz      |
| Number of phases       | 1              | 1              |
| Voltage range          | 95-135V        | 95-135V        |
| Approvals              | EAC, UL        | EAC, UL        |
| Starting torque        | HST            | HST            |
| Note                   | - / -          |                |

## Applications with NF6.1FX.2

|                         | <b>Conf. 1</b> | <b>Conf. 2</b> |
|-------------------------|----------------|----------------|
| Refrigerant             | R134a          | R513A          |
| Application             | LBP+MBP        | LBP+MBP        |
| System cooling          | fan 1,5m/s     | fan 1,5m/s     |
| Hot gas defrost         | -/-            | -/-            |
| Long interval pull down | OK             | OK             |

## Electrical data - Configurations with NF6.1FX.2

|                                    | <b>Conf. 1</b> | <b>Conf. 2</b> |
|------------------------------------|----------------|----------------|
| Starting device type               | relay          | relay          |
| Run capacitor                      | -/-            | -/-            |
| Start capacitor                    | 280μF          | 280μF          |
| LRA (locked rotor amps / 4s/ U(N)) | 22,2A          | 22,2A          |
| RLA (rated load amps / 1s/ U(N))   | 3,7A           | 3,7A           |
| Cut in current (U(N))              | 22,2A          | 22,2A          |

## Model

Designation

**NF6.1FX.2**

115-127V/60Hz 1~

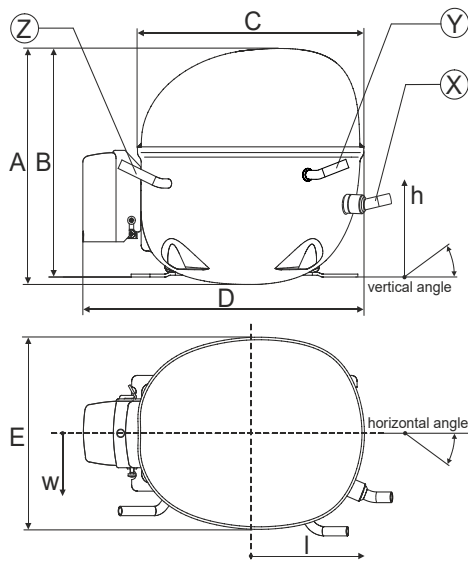
Sales code:

**105G5631**

## 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 |

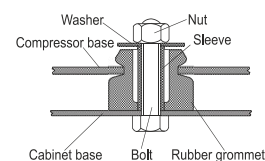
| Connectors       |                            | Suction      | Discharge    | Process      |
|------------------|----------------------------|--------------|--------------|--------------|
|                  |                            | X            | Y            | Z            |
| Diameter         | [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]                       | 119/76/78    | 127/103/54   | -113/94/72   |
|                  | [in]                       | 4,7/3/3,1    | 5/4,1/2,1    | -4,4/3,7/2,8 |
| Straight tube l. | [mm]                       | 12           | 12           | 12           |
|                  | [in]                       | 0,5          | 0,5          | 0,5          |



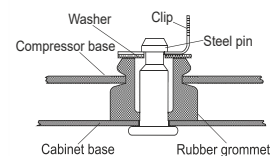
## Compressor fixation



### 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

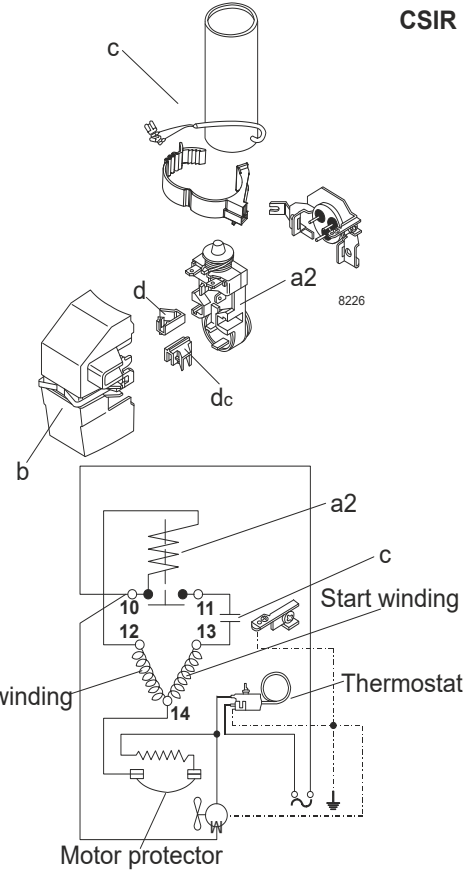
### Model

|             |                  |                  |                |             |                 |
|-------------|------------------|------------------|----------------|-------------|-----------------|
| Designation | <b>NF6.1FX.2</b> | <b>115V/60Hz</b> | <b>Conf. 1</b> | Sales code: | <b>105G5631</b> |
|-------------|------------------|------------------|----------------|-------------|-----------------|

### Configuration

|                        |              |
|------------------------|--------------|
| Motorconfiguration     | CSIR         |
| Power supply (nominal) | 115V/60Hz 1~ |
| Refrigerant            | R134a        |
| Application            | LBP+MBP      |
| Voltage range          | 95-135V      |
| Starting torque        | HST          |
| Approvals              | EAC          |
|                        | UL           |

### Electrical accessories / wiring diagram



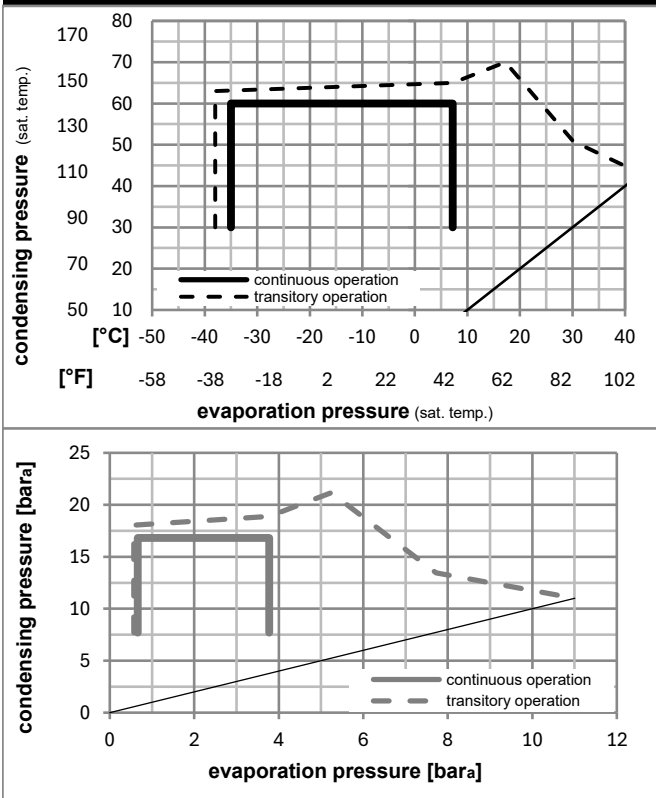
### Ambient/ machine room temperatures minimum /maximum

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

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 1,5m/s

### Operation pressure range



### Components

|      |                            |          |
|------|----------------------------|----------|
| a2   | current relay (MRP36AEN-6) | 117U4127 |
| c    | start capacitor (280µF)    | 117U5025 |
| b    | plastic cover              | 117U1021 |
| d/dc | cord relief                | 117U0349 |
| d/dc | cord relief                | 117U0349 |

### Alternative components

|    |                            |          |
|----|----------------------------|----------|
| a2 | current relay (MRP36AEN-6) | 117U4157 |
| c  | start capacitor (280µF)    | 117U5074 |

## Model

Designation **NF6.1FX.2** **115V/60Hz** Conf. 1 Sales code: **105G5631**

## Optimization + standard conditions

R134a, 115V/60Hz, CSIR, fan 1,5m/s, EAC, UL

|      | Evaporating pressure (saturation temperature) |     |     |      | Condensing pressure (saturation temperature) |         |          | Return gas temp. | Liquid temp. | Cooling capacity | COP   | EER  | P1   | Power consumption  |          | Ref. mass flow |  |
|------|---|-----|-----|------|--|---------|----------|------------------|--------------|------------------|-------|------|------|--------------------|----------|----------------|--|
|      | pe  | pc  | RGT | Tliq | [W]  | [Btu/h] | [kcal/h] |                  |              |                  |       |      |      | [W/W]              | [Btu/Wh] |                |  |
| [°C] | -23   | 54  | 32  | 32   | 211,3  | 721     | 181,8    | 1,19             | 4,06         | 1,02             | 177,6 | 2,66 | 4,10 | <b>ASHRAE LBP</b>  |          |                |  |
| [°F] | -10   | 130 | 90  | 90   |  |         |          |                  |              |                  |       |      |      |                    |          |                |  |
| [°C] | -25   | 55  | 32  | 55   | 152,8  | 522     | 131,5    | 0,90             | 3,08         | 0,78             | 169,4 | 2,62 | 3,65 | <b>cecomaf LBP</b> |          |                |  |
| [°F] | -13   | 131 | 90  | 131  |  |         |          |                  |              |                  |       |      |      |                    |          |                |  |
| [°C] | -35   | 40  | 20  | 40   | 99,9   | 341     | 86,0     | 0,76             | 2,59         | 0,65             | 131,6 | 2,48 | 2,19 | <b>EN12900 LBP</b> |          |                |  |
| [°F] | -31   | 104 | 68  | 104  |  |         |          |                  |              |                  |       |      |      |                    |          |                |  |
| [°C] | -23   | 49  | 4,4 | 49   | 177,9  | 608     | 153,1    | 1,00             | 3,42         | 0,86             | 177,9 | 2,64 | 4,70 | <b>ARI540 LBP</b>  |          |                |  |
| [°F] | -10   | 120 | 40  | 120  |  |         |          |                  |              |                  |       |      |      |                    |          |                |  |
| [°C] | -23   | 41  | 32  | 32   | 242,6  | 828     | 208,8    | 1,38             | 4,70         | 1,19             | 176,1 | 2,62 | 4,71 | <b>AHAM LBP</b>    |          |                |  |
| [°F] | -10   | 105 | 90  | 90   |  |         |          |                  |              |                  |       |      |      |                    |          |                |  |
| [°C] | -35   | 45  | 32  | 45   | 90,9   | 310     | 78,2     | 0,71             | 2,42         | 0,61             | 128,1 | 2,47 | 1,96 | <b>opt</b>         |          |                |  |
| [°F] | -31   | 113 | 90  | 113  |  |         |          |                  |              |                  |       |      |      |                    |          |                |  |

## Performance tables

R134a, 115V/60Hz, CSIR, fan 1,5m/s, EAC, 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]        | -35  | -31  | 90,9             | 310     | 78,2     | 0,71  | 2,42     | 0,61      | 128,1 | 2,47 | 1,96   |    |   |   |
| cond. pressure   | -23  | -10  | 209,5            | 716     | 180,3    | 1,18  | 4,03     | 1,02      | 177,4 | 2,64 | 4,54   |    |   |   |
| pc= 45/113       | -15  | 5    | 326,8            | 1116    | 281,2    | 1,56  | 5,34     | 1,34      | 209,2 | 2,80 | 7,12   |    |   |   |
| return gas temp. | -9   | 15   | 422,9            | 1444    | 363,9    | 1,83  | 6,27     | 1,58      | 230,5 | 2,93 | 9,26   |    |   |   |
| RGT= 32/90       | -4   | 25   | 535,2            | 1828    | 460,6    | 2,12  | 7,23     | 1,82      | 252,9 | 3,08 | 11,78  |    |   |   |
| liquid temp      | 0    | 32   | 624,2            | 2132    | 537,2    | 2,31  | 7,90     | 1,99      | 269,7 | 3,20 | 13,80  |    |   |   |
| Tliq= 45/113     | 7,2  | 45   | 814,4            | 2781    | 700,9    | 2,67  | 9,13     | 2,30      | 304,6 | 3,43 | 18,19  |    |   |   |
| [°C / °F]        | -35  | -31  | 69,1             | 236     | 59,4     | 0,59  | 2,02     | 0,51      | 116,9 | 2,44 | 1,64   |    |   |   |
| cond. pressure   | -23  | -10  | 170,2            | 581     | 146,5    | 0,96  | 3,28     | 0,83      | 177,5 | 2,66 | 4,07   |    |   |   |
| pc= 55/131       | -15  | 5    | 274,3            | 937     | 236,1    | 1,27  | 4,32     | 1,09      | 216,7 | 2,86 | 6,60   |    |   |   |
| return gas temp  | -9   | 15   | 361,3            | 1234    | 311,0    | 1,49  | 5,09     | 1,28      | 242,6 | 3,01 | 8,74   |    |   |   |
| RGT= 32/90       | -4   | 25   | 464,3            | 1586    | 399,6    | 1,72  | 5,89     | 1,48      | 269,3 | 3,19 | 11,30  |    |   |   |
| liquid temp      | 0    | 32   | 546,6            | 1867    | 470,4    | 1,89  | 6,46     | 1,63      | 289,0 | 3,32 | 13,37  |    |   |   |
| Tliq= 55/131     | 7,2  | 45   | 724,0            | 2473    | 623,1    | 2,20  | 7,52     | 1,89      | 328,9 | 3,58 | 17,91  |    |   |   |

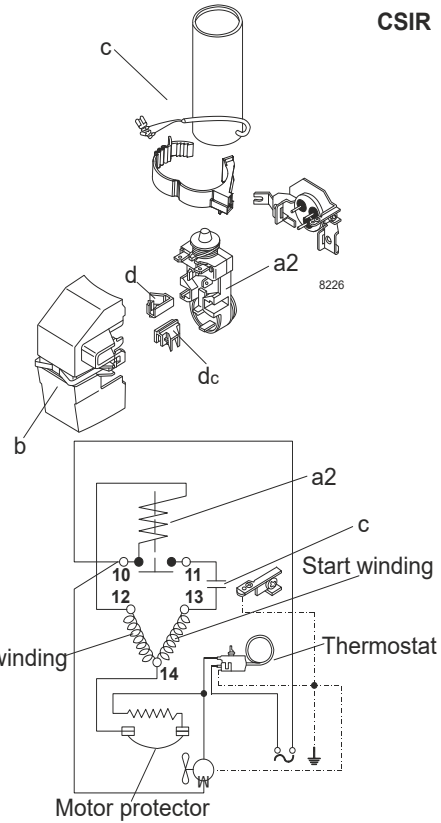
## Model

|             |                  |                  |                |             |                 |
|-------------|------------------|------------------|----------------|-------------|-----------------|
| Designation | <b>NF6.1FX.2</b> | <b>115V/60Hz</b> | <b>Conf. 2</b> | Sales code: | <b>105G5631</b> |
|-------------|------------------|------------------|----------------|-------------|-----------------|

## Configuration

|                        |              |
|------------------------|--------------|
| Motorconfiguration     | CSIR         |
| Power supply (nominal) | 115V/60Hz 1~ |
| Refrigerant            | R513A        |
| Application            | LBP+MBP      |
| Voltage range          | 95-135V      |
| Starting torque        | HST          |
| Approvals              | EAC          |
|                        | UL           |

## Electrical accessories / wiring diagram



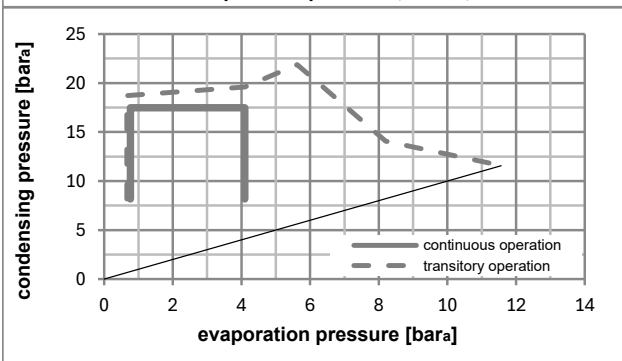
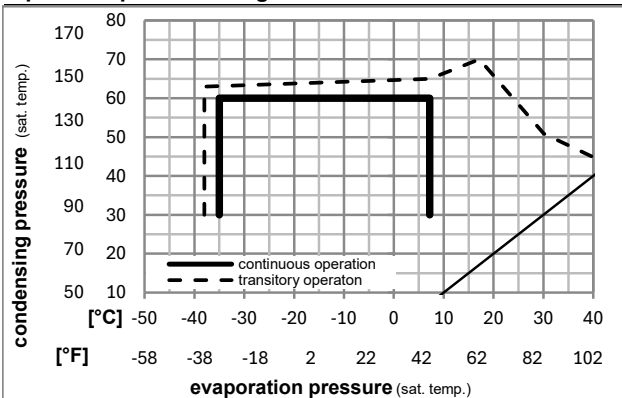
## Ambient/ machine room temperatures minimum /maximum

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

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 1,5m/s

## Operation pressure range



## Components

|      |                            |          |
|------|----------------------------|----------|
| a2   | current relay (MRP36AEN-6) | 117U4127 |
| c    | start capacitor (280µF)    | 117U5025 |
| b    | plastic cover              | 117U1021 |
| d/dc | cord relief                | 117U0349 |
| d/dc | cord relief                | 117U0349 |

## Alternative components

|    |                            |          |
|----|----------------------------|----------|
| a2 | current relay (MRP36AEN-6) | 117U4157 |
| c  | start capacitor (280µF)    | 117U5074 |

### Model

|             |                  |                  |                |             |                 |
|-------------|------------------|------------------|----------------|-------------|-----------------|
| Designation | <b>NF6.1FX.2</b> | <b>115V/60Hz</b> | <b>Conf. 2</b> | Sales code: | <b>105G5631</b> |
|-------------|------------------|------------------|----------------|-------------|-----------------|

### Optimization + standard conditions

R513A, 115V/60Hz, CSIR, fan 1,5m/s, EAC, UL

|      |      | 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                | m      |  |     |     |                   |  |             |
| [°C] | [°F] | [°C]  | [°F] | [°C] | [°C] |  |         |          |                  |          |              | [W]   | [A]              | [kg/h] |  |     |     |                   |  |             |
| -23  | -10  | 54  | 130  | 32   | 32   | 233,5  | 797     | 200,9    | 1,21             | 4,13     | 1,04         | 192,9 | 2,80             | 5,02   |  |     |     |                   |  | ASHRAE LBP  |
| -25  | -13  | 55  | 131  | 32   | 55   | 164,4  | 562     | 141,5    | 0,89             | 3,04     | 0,77         | 184,5 | 2,76             | 4,50   |  |     |     |                   |  | cecomaf LBP |
| -35  | -31  | 40  | 104  | 20   | 40   | 111,6  | 381     | 96,0     | 0,78             | 2,66     | 0,67         | 143,3 | 2,54             | 2,76   |  |     |     |                   |  | EN12900 LBP |
| -23  | -10  | 49  | 120  | 4,4  | 49   | 187,5  | 640     | 161,3    | 0,97             | 3,33     | 0,84         | 192,4 | 2,80             | 5,74   |  |     |     |                   |  | ARI540 LBP  |
| -23  | -10  | 41  | 105  | 32   | 32   | 266,0  | 908     | 228,9    | 1,40             | 4,79     | 1,21         | 189,8 | 2,79             | 5,72   |  |     |     |                   |  | AHAM LBP    |
| -35  | -31  | 45  | 113  | 32   | 45   | 102,1  | 349     | 87,9     | 0,73             | 2,50     | 0,63         | 139,5 | 2,52             | 2,48   |  |     |     |                   |  | opt         |

### Performance tables

R513A, 115V/60Hz, CSIR, fan 1,5m/s, EAC, 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]        | -35  | -31  | 102,1            | 349     | 87,9     | 0,73  | 2,50     | 0,63      | 139,5 | 2,52 | 2,48   |   |
| cond. pressure   | -23  | -10  | 226,8            | 775     | 195,2    | 1,19  | 4,05     | 1,02      | 191,4 | 2,79 | 5,53   |   |
| pc= 45/113       | -15  | 5    | 347,3            | 1186    | 298,9    | 1,55  | 5,31     | 1,34      | 223,5 | 2,96 | 8,51   |   |
| return gas temp. | -9   | 15   | 445,0            | 1520    | 383,0    | 1,82  | 6,21     | 1,57      | 244,7 | 3,08 | 10,94  |   |
| RGT= 32/90       | -4   | 25   | 558,1            | 1906    | 480,3    | 2,09  | 7,14     | 1,80      | 266,9 | 3,19 | 13,79  |   |
| liquid temp      | 0    | 32   | 647,3            | 2211    | 557,1    | 2,28  | 7,80     | 1,96      | 283,6 | 3,28 | 16,06  |   |
| Tliq= 45/113     | 7,2  | 45   | 836,6            | 2857    | 720,0    | 2,63  | 8,97     | 2,26      | 318,5 | 3,47 | 20,93  |   |
| [°C / °F]        | -35  | -31  | 77,5             | 265     | 66,7     | 0,60  | 2,05     | 0,52      | 128,9 | 2,46 | 2,11   |   |
| cond. pressure   | -23  | -10  | 182,2            | 622     | 156,8    | 0,94  | 3,23     | 0,81      | 192,9 | 2,80 | 4,99   |   |
| pc= 55/131       | -15  | 5    | 287,3            | 981     | 247,3    | 1,24  | 4,22     | 1,06      | 232,6 | 3,01 | 7,91   |   |
| return gas temp  | -9   | 15   | 374,2            | 1278    | 322,0    | 1,45  | 4,95     | 1,25      | 258,4 | 3,15 | 10,35  |   |
| RGT= 32/90       | -4   | 25   | 476,2            | 1626    | 409,8    | 1,67  | 5,71     | 1,44      | 284,9 | 3,29 | 13,24  |   |
| liquid temp      | 0    | 32   | 557,4            | 1904    | 479,7    | 1,83  | 6,25     | 1,58      | 304,4 | 3,39 | 15,57  |   |
| Tliq= 55/131     | 7,2  | 45   | 731,3            | 2498    | 629,4    | 2,13  | 7,26     | 1,83      | 344,0 | 3,60 | 20,62  |   |