

Single Pack NF6.1FX.2 115-127V 60Hz CSIR

Single pack code number: **195B4009**

| Position | Title | Code | Amount |
|----------|--------------------------------------------|----------|--------|
| 1 | Compressor NF6.1FX.2 | 105G5638 | 1 |
| 2 | Bolt joint for one compressor M6 ø16mm | 118-1917 | 1 |

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Model

| | | | | |
|-------------|------------------|------------------|-------------|-----------------|
| Designation | NF6.1FX.2 | 115-127V/60Hz 1~ | Sales code: | 105G5638 |
|-------------|------------------|------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|---------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R134a, R513A, 0 |
| Oil viscosity | 32cST | Displacement | 6,13cm ³ / 0,37cu.in |
| Oil quantity | 270cm ³ / 9,1fl.oz | Compressors on pallet | 80 |
| Refr. charge - tech. limit | 400g / 14,1oz | | |
| Free gas volume comp. | 2360cm ³ / 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

| | Conf. 1 | Conf. 2 |
|------------------------|-------------------------------------------------------------------|----------------|
| Motorconfiguration | CSIR | CSIR |
| Power supply (nominal) | 115V/60Hz | 115V/60Hz |
| Number of phases | 1 | 1 |
| Voltage range | 95-135V | 95-135V |
| Approvals | UL | UL |
| Starting torque | HST | HST |
| Note | Electrical equipment is included and pre-assembled to compressor. | |

Applications with NF6.1FX.2

| | Conf. 1 | Conf. 2 |
|-------------------------|----------------|----------------|
| 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

| | Conf. 1 | Conf. 2 |
|------------------------------------|----------------|----------------|
| 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~

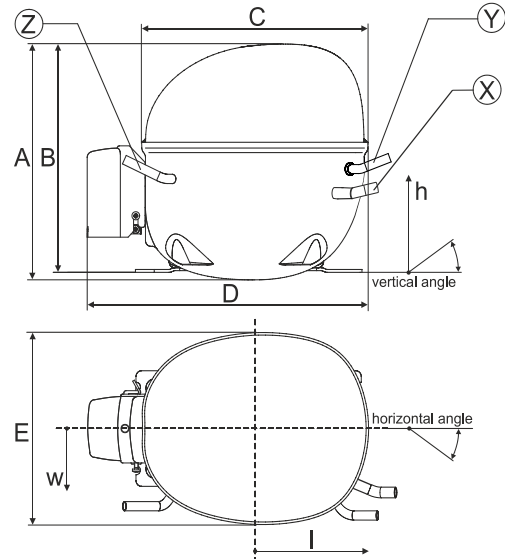
Sales code:

105G5638

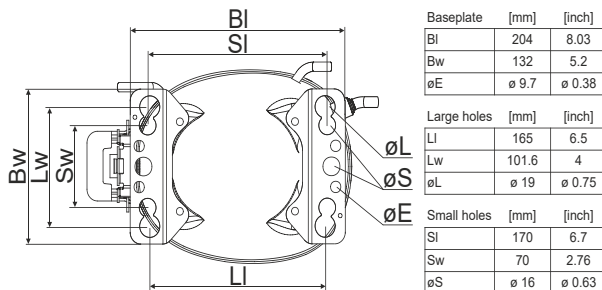
Compressor dimensions

| 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 |

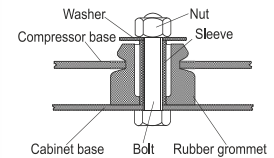
| Connectors | | Suction | Discharge | Process |
|------------------|----------------------------|--------------|--------------|--------------|
| | | X | Y | Z |
| Diameter | [mm] | øi 8,11-8,29 | øi 6,41-6,59 | øi 6,41-6,59 |
| | (i:inside, o:outside) [in] | øi 0,32-0,33 | øi 0,25-0,26 | øi 0,25-0,26 |
| 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 |



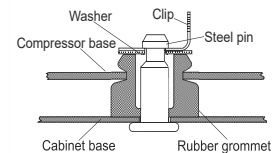
Compressor fixation



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

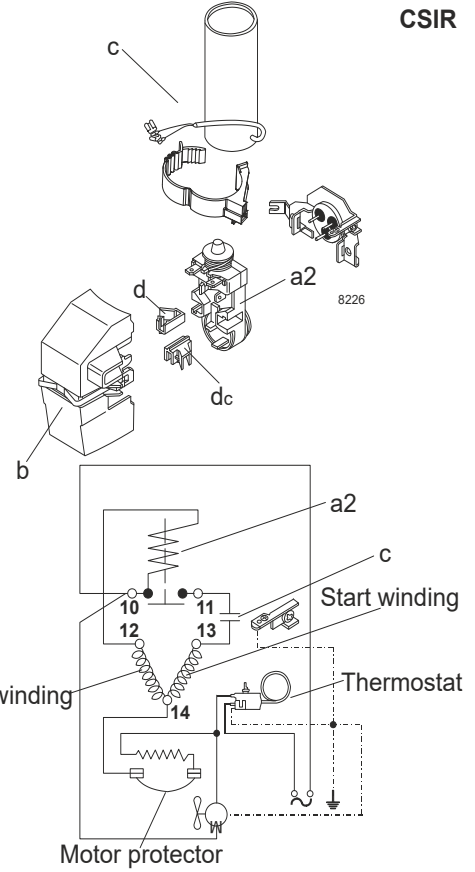
Model

| | | | | | |
|-------------|------------------|------------------|----------------|-------------|-----------------|
| Designation | NF6.1FX.2 | 115V/60Hz | Conf. 1 | Sales code: | 105G5638 |
|-------------|------------------|------------------|----------------|-------------|-----------------|

Configuration

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

Electrical accessories / wiring diagram



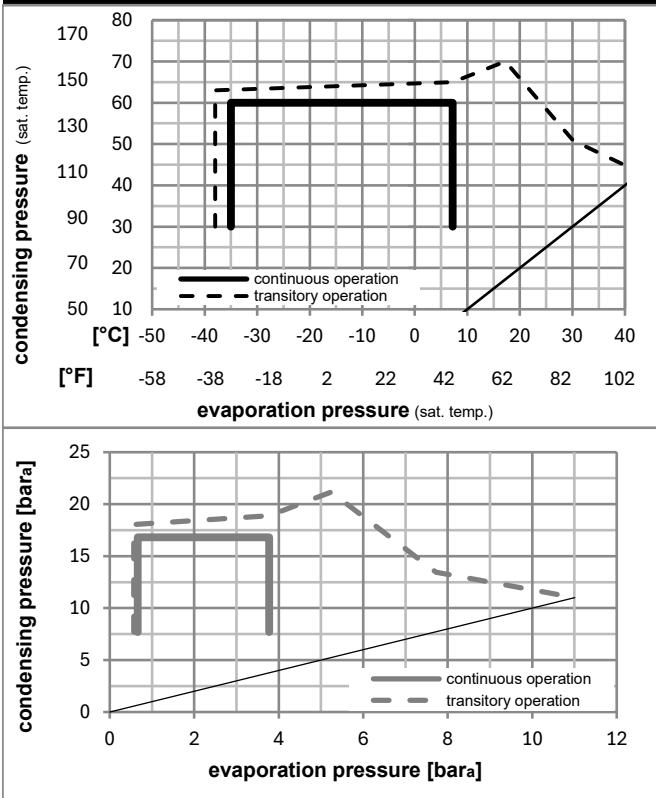
Ambient/ machine room temperatures minimum /maximum

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

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

Compressor cooling: fan 1,5m/s

Operation pressure range



Components (already pre-assembled)

| | | |
|------|----------------------------|----------|
| 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 comp. (already pre-assembled)

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

Model

| | | | | | |
|-------------|------------------|------------------|----------------|-------------|-----------------|
| Designation | NF6.1FX.2 | 115V/60Hz | Conf. 1 | Sales code: | 105G5638 |
|-------------|------------------|------------------|----------------|-------------|-----------------|

Optimization + standard conditions

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

| | pe | pc | RGT | Tliq | Cooling capacity [W] | [Btu/h] | [kcal/h] | COP [W/W] | EER [Btu/Wh] | [kcal/Wh] | P1 [W] | I [A] | Ref. mass flow ṁ [kg/h] | |
|-----------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|------|-------------------------|---------|----------|--------------|-----------------|-----------|-----------|----------|-------------------------------|--------------------|
| Evaporating pressure (saturation temperature) Condensing pressure (saturation temperature) Return gas temp. Liquid temp. | | | | | | | | | | | | | | |
| [°C] | -23 | 54 | 32 | 32 | 211,3 | 721 | 181,8 | 1,19 | 4,06 | 1,02 | 177,6 | 2,66 | 4,10 | ASHRAE LBP |
| [°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 | cecomaf LBP |
| [°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 | EN12900 LBP |
| [°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 | ARI540 LBP |
| [°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 | AHAM LBP |
| [°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 | opt |
| [°F] | -31 | 113 | 90 | 113 | | | | | | | | | | |

Performance tables

R134a, 115V/60Hz, CSIR, fan 1,5m/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] | -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 |

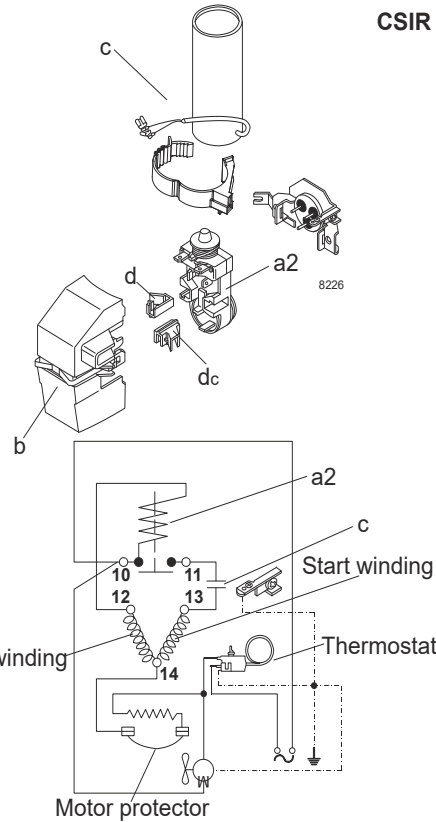
Model

| | | | | | |
|-------------|------------------|------------------|----------------|-------------|-----------------|
| Designation | NF6.1FX.2 | 115V/60Hz | Conf. 2 | Sales code: | 105G5638 |
|-------------|------------------|------------------|----------------|-------------|-----------------|

Configuration

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

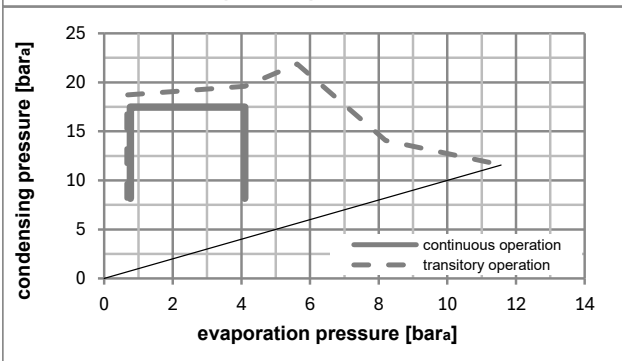
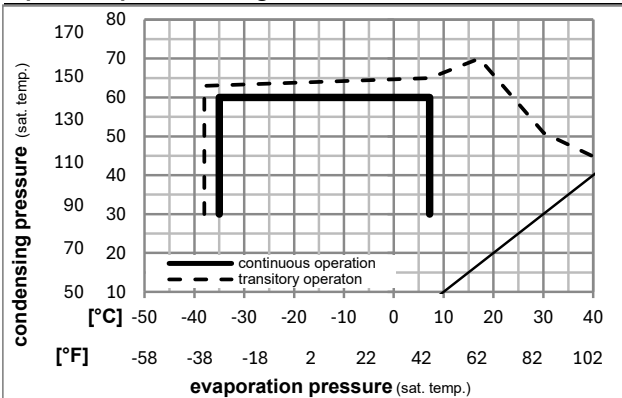
Electrical accessories / wiring diagram



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 1,5m/s |

Operation pressure range



Components (already pre-assembled)

| | | |
|------|----------------------------|----------|
| 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 comp. (already pre-assembled)

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

Model

| | | | | | |
|-------------|------------------|------------------|----------------|-------------|-----------------|
| Designation | NF6.1FX.2 | 115V/60Hz | Conf. 2 | Sales code: | 105G5638 |
|-------------|------------------|------------------|----------------|-------------|-----------------|

Optimization + standard conditions

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

| | | Evaporating pressure (saturation temperature) | | | | Cooling capacity | | | COP | | | EER | | | Power consumption | | | |
|------|------|-----------------------------------------------|------|------------------|------|------------------|---------|----------|-------|----------|-----------|-------|------|---------------------|-------------------|-------------|----------------|--|
| | | Condensing pressure (saturation temperature) | | Return gas temp. | | Liquid temp. | | | | | | | | Current consumption | | | Ref. mass flow | |
| | | 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

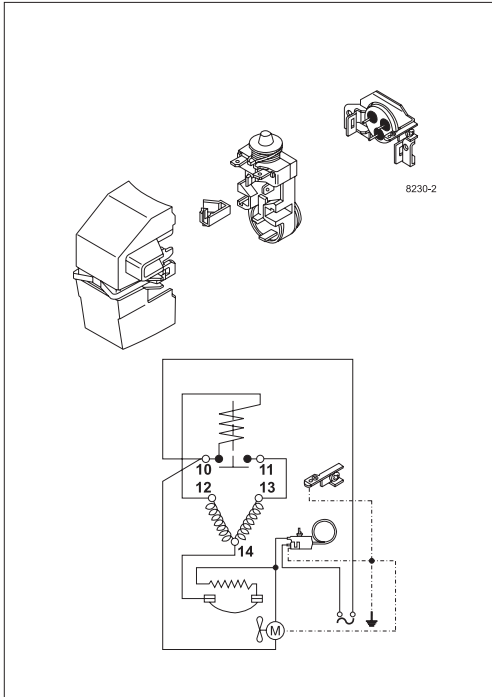
R513A, 115V/60Hz, CSIR, fan 1,5m/s, UL

| | 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 | | | | | | | | | |

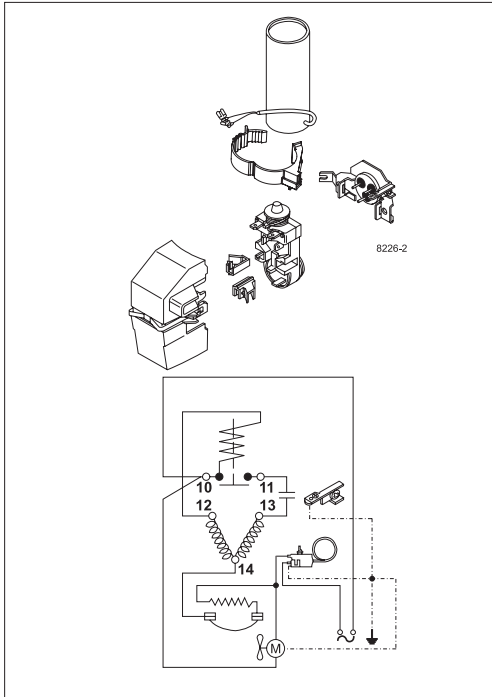


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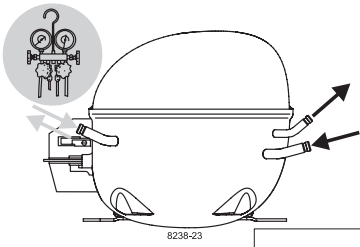
NF Compressors



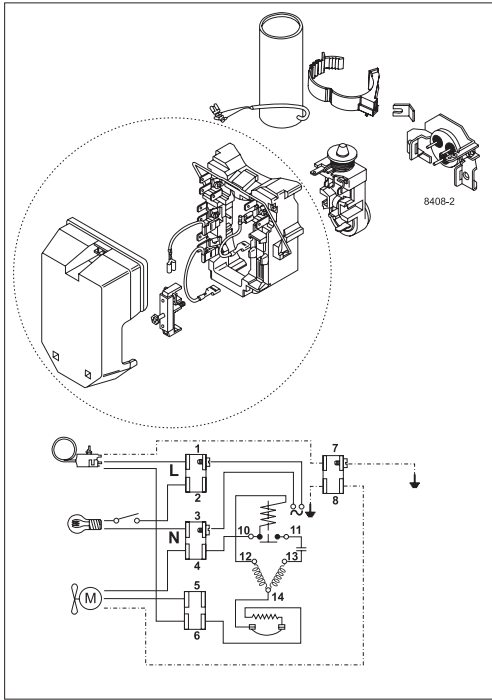
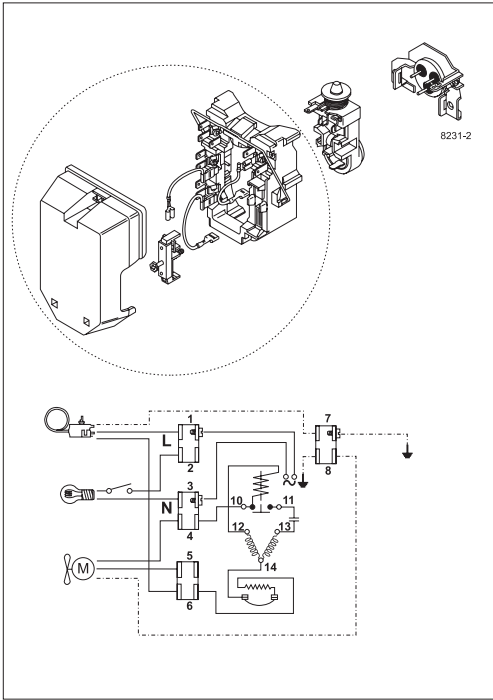
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