

Model

| | | | | |
|-------------|---------------|--|-------------|-----------------|
| Designation | NF7MLX | 220-240V/50Hz 1~ 208-230V/60Hz 1~ | Sales code: | 105F3727 |
|-------------|---------------|--|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|---------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R404A, R507, R452A |
| Oil viscosity | 32cST | Displacement | 7,27cm ³ / 0,44cu.in |
| Oil quantity | 294cm ³ / 10fl.oz | Compressors on pallet | 80 |
| Refr. charge - tech. limit | 400g / 14,1oz | | |
| Free gas volume comp. | 2310cm ³ / 78,1fl.oz | | |
| Weight | 10,5kg / 23,1lbs | | |
| Motor protection | external | | |
| Winding resistance main | 4,5Ω (at 25°C) | | |
| Winding resistance aux | 12,8Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 130°C / 266°F | | |



General - Configurations with NF7MLX

| | Conf. 1 | Conf. 2 |
|------------------------|----------------|----------------|
| Motorconfiguration | CSIR | CSIR |
| Power supply (nominal) | 220-240V/50Hz | 208-230V/60Hz |
| Number of phases | 1 | 1 |
| Voltage range | 187-254V | 187-254V |
| Approvals | VDE, UL | VDE, UL |
| Starting torque | HST | HST |
| Note | - / - | |

Applications with NF7MLX

| | Conf. 1 | Conf. 2 |
|-------------------------|----------------|----------------|
| Refrigerant | R404A | R404A |
| Application | MBP | MBP |
| System cooling | fan 3m/s | fan 3m/s |
| Hot gas defrost | - / - | - / - |
| Long interval pull down | OK | OK |

Electrical data - Configurations with NF7MLX

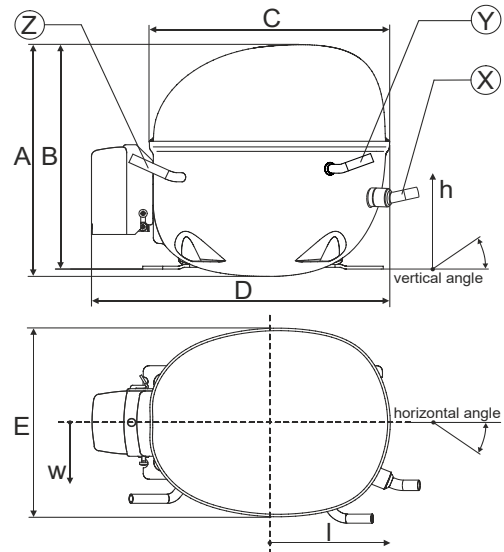
| | Conf. 1 | Conf. 2 |
|------------------------------|----------------|----------------|
| Starting device type | relay | relay |
| Run capacitor | - / - | - / - |
| Start capacitor | 125μF | 125μF |
| LRA (locked rotor amps / 4s) | 20A | 19,4A |
| RLA (rated load amps / 1s) | 3,7A | 3,24A |
| Cut in current | 20A | 19,4A |
| IP class | 21 | 21 |

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Compressor dimensions

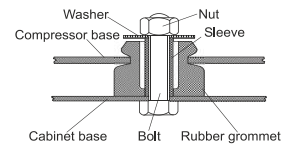
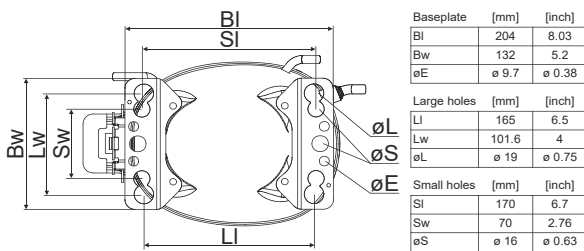
| | | |
|----------------|-------------------|----------------|
| Housing | A Height | 203mm / 7,99in |
| | B Height | 197mm / 7,76in |
| | C Length shell | 205mm / 8,07in |
| | D Length w. cover | 254mm / 10in |
| | E Width | 166mm / 6,54in |



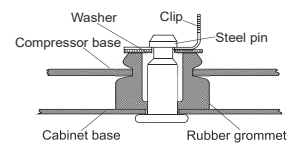
| Connectors | | Suction | Discharge | Process |
|-----------------------|------|----------------|------------------|----------------|
| | | X | Y | Z |
| Diameter | [mm] | øi 9,61-9,79 | øi 6,41-6,59 | øi 6,41-6,59 |
| (i:inside, o:outside) | [in] | øi 0,38-0,39 | øi 0,25-0,26 | øi 0,25-0,26 |
| Material | | 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 |

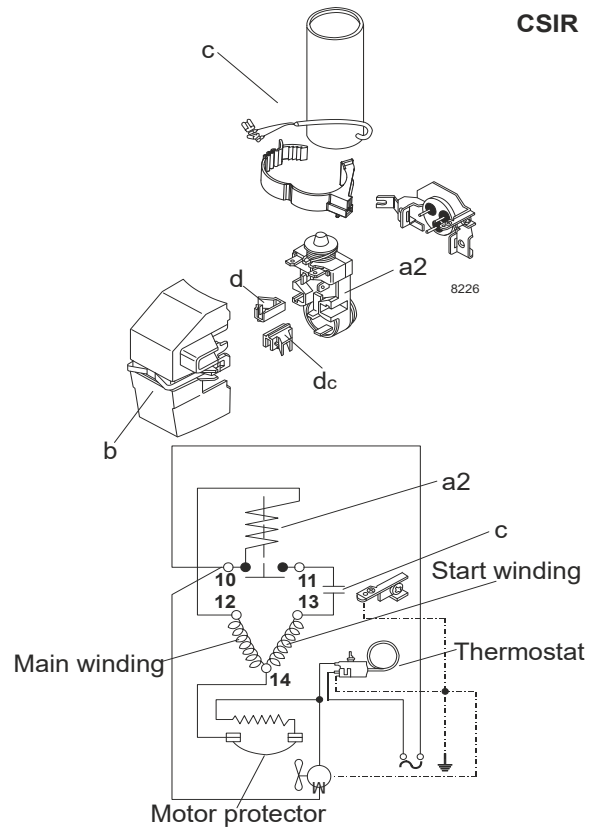
Model

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|-------------|---------------|----------------------|----------------|-------------|-----------------|
| Designation | NF7MLX | 220-240V/50Hz | Conf. 1 | Sales code: | 105F3727 |
|-------------|---------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSIR |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant | R404A |
| Application | MBP |
| Voltage range | 187-254V |
| Starting torque | HST |
| Approvals | VDE |
| | UL |

Electrical accessories / wiring diagram

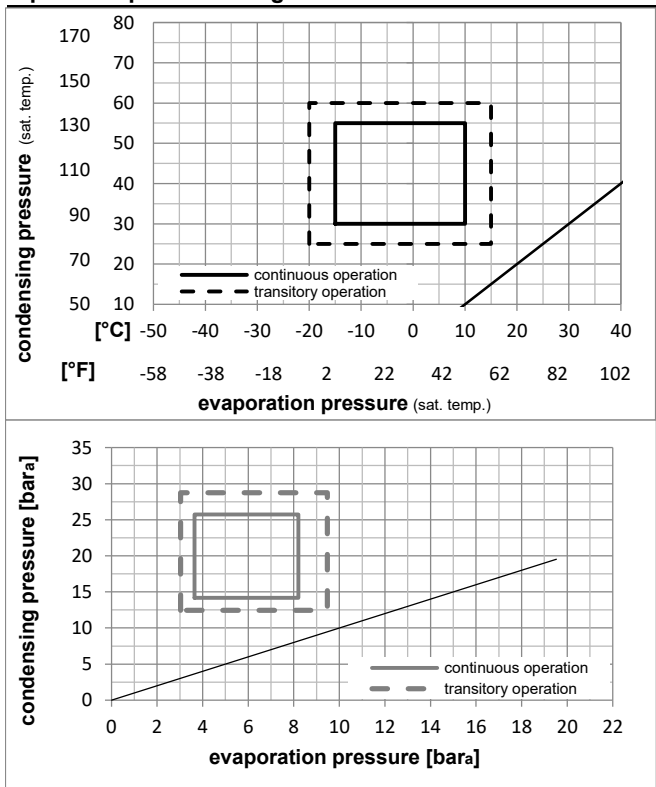


Ambient temperatures / system cooling

| | |
|---------------------------|--------------|
| Ambient temperature min.: | 10°C / 50°F |
| Ambient temperature max.: | 43°C / 110°F |

| System cooling (n/a: outside limits) | | | |
|--------------------------------------|-----|----------|-----|
| T ambient | LBP | MBP | HBP |
| 32°C / 90°F | n/a | fan 3m/s | n/a |
| 38°C / 100°F | n/a | fan 3m/s | n/a |
| 43°C / 110°F | n/a | fan 3m/s | n/a |

Operation pressure range



Components

| | | |
|------|---------------------------------|----------|
| a2 | relay (protector: TI MRP56EN-6) | 117U4139 |
| c | start capacitor | 117U5018 |
| b | plastic cover | 117U1021 |
| d/dc | cord relief | 117U0349 |
| d/dc | cord relief | 117U0349 |

Alternative components

| | | |
|------|---------------------------------|----------|
| a2 | relay (protector: TI MRP56EN-6) | 117U4139 |
| c | start capacitor | 117U5018 |
| b | plastic cover | 117U1021 |
| d/dc | cord relief | 117U0349 |
| d | cord relief | 117U0317 |

Model

Designation **NF7MLX 220-240V/50Hz** Conf. 1 Sales code: **105F3727**

Optimization + standard conditions

R404A, 220V/50Hz, CSIR, fan 3m/s, VDE, 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] | [°C] | [°C] | [°C] | [°C] | | | | | | | [W] | [A] | [kg/h] | |
| [°F] | 20 | 130 | 95 | 115 | 682,4 | 2330 | 587,3 | 1,49 | 5,08 | 1,28 | 458,7 | 3,24 | 18,78 | ASHRAE MBP |
| [°C] | -10 | 55 | 32 | 55 | 506,8 | 1731 | 436,2 | 1,16 | 3,97 | 1,00 | 436,5 | 3,17 | 16,22 | cecomaf MBP |
| [°F] | 14 | 131 | 89,6 | 131 | | | | | | | | | | |
| [°C] | -10 | 45 | 20 | 45 | 598,0 | 2042 | 514,7 | 1,47 | 5,04 | 1,27 | 405,5 | 3,10 | 18,01 | EN12900 MBP |
| [°F] | 14 | 113 | 68 | 113 | | | | | | | | | | |
| [°C] | -6,66 | 48,9 | 18,3 | 48,9 | 622,8 | 2127 | 536,0 | 1,42 | 4,85 | 1,22 | 438,5 | 3,20 | 20,35 | ARI540 MBP |
| [°F] | 20 | 120 | 65 | 120 | | | | | | | | | | |
| [°C] | -10 | 45 | 32 | 45 | 634,7 | 2168 | 546,2 | 1,57 | 5,35 | 1,35 | 405,5 | 3,10 | 17,48 | opt |
| [°F] | 14 | 113 | 89,6 | 113 | | | | | | | | | | |
| [°C] | -25 | 45 | 32 | 45 | 311,7 | 1065 | 268,3 | 1,02 | 3,50 | 0,88 | 304,4 | 2,84 | 8,41 | opt |
| [°F] | -13 | 113 | 89,6 | 113 | | | | | | | | | | |

Performance tables

R404A, 220V/50Hz, CSIR, fan 3m/s, VDE, 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] | -15 | 5 | 511,1 | 1746 | 439,9 | 1,37 | 4,67 | 1,18 | 373,7 | 3,01 | 13,96 |
| cond. pressure | -10 | 14 | 634,7 | 2168 | 546,2 | 1,57 | 5,35 | 1,35 | 405,5 | 3,10 | 17,48 |
| pc= 45/113 | -6,7 | 20 | 726,3 | 2480 | 625,1 | 1,71 | 5,83 | 1,47 | 425,4 | 3,17 | 20,12 |
| return gas temp. | 0 | 32 | 939,8 | 3209 | 808,8 | 2,03 | 6,93 | 1,75 | 462,8 | 3,29 | 26,42 |
| RGT= 32/90 | 5 | 41 | 1125,4 | 3844 | 968,6 | 2,31 | 7,88 | 1,98 | 487,9 | 3,39 | 32,06 |
| liquid temp | 7,2 | 45 | 1214,9 | 4149 | 1045,5 | 2,44 | 8,33 | 2,10 | 498,2 | 3,43 | 34,84 |
| Tliq= 45/113 | 10 | 50 | 1335,9 | 4562 | 1149,7 | 2,62 | 8,94 | 2,25 | 510,6 | 3,49 | 38,66 |
| [°C / °F] | -15 | 5 | 403,5 | 1378 | 347,3 | 1,01 | 3,46 | 0,87 | 398,6 | 3,06 | 12,80 |
| cond. pressure | -10 | 14 | 506,8 | 1731 | 436,2 | 1,16 | 3,97 | 1,00 | 436,5 | 3,17 | 16,22 |
| pc= 55/131 | -6,7 | 20 | 583,2 | 1992 | 501,9 | 1,27 | 4,32 | 1,09 | 460,6 | 3,25 | 18,80 |
| return gas temp | 0 | 32 | 760,9 | 2599 | 654,8 | 1,50 | 5,13 | 1,29 | 506,8 | 3,40 | 24,95 |
| RGT= 32/90 | 5 | 41 | 915,8 | 3128 | 788,2 | 1,70 | 5,80 | 1,46 | 538,9 | 3,52 | 30,50 |
| liquid temp | 7,2 | 45 | 990,6 | 3383 | 852,5 | 1,79 | 6,13 | 1,54 | 552,3 | 3,58 | 33,24 |
| Tliq= 55/131 | 10 | 50 | 1092,0 | 3730 | 939,8 | 1,92 | 6,56 | 1,65 | 568,7 | 3,65 | 37,04 |

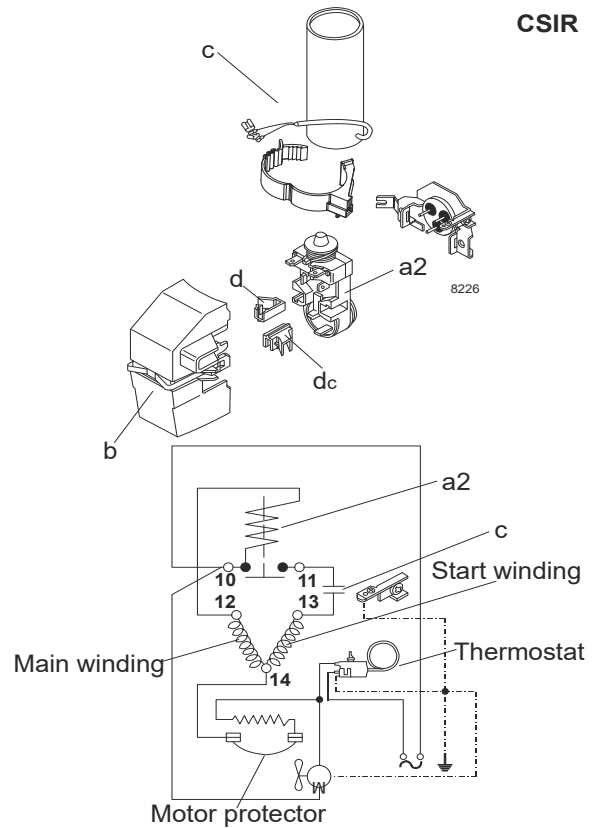
Model

| | | | | | |
|-------------|---------------|----------------------|----------------|-------------|-----------------|
| Designation | NF7MLX | 208-230V/60Hz | Conf. 2 | Sales code: | 105F3727 |
|-------------|---------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSIR |
| Power supply (nominal) | 208-230V/60Hz 1~ |
| Refrigerant | R404A |
| Application | MBP |
| Voltage range | 187-254V |
| Starting torque | HST |
| Approvals | VDE |
| | UL |

Electrical accessories / wiring diagram

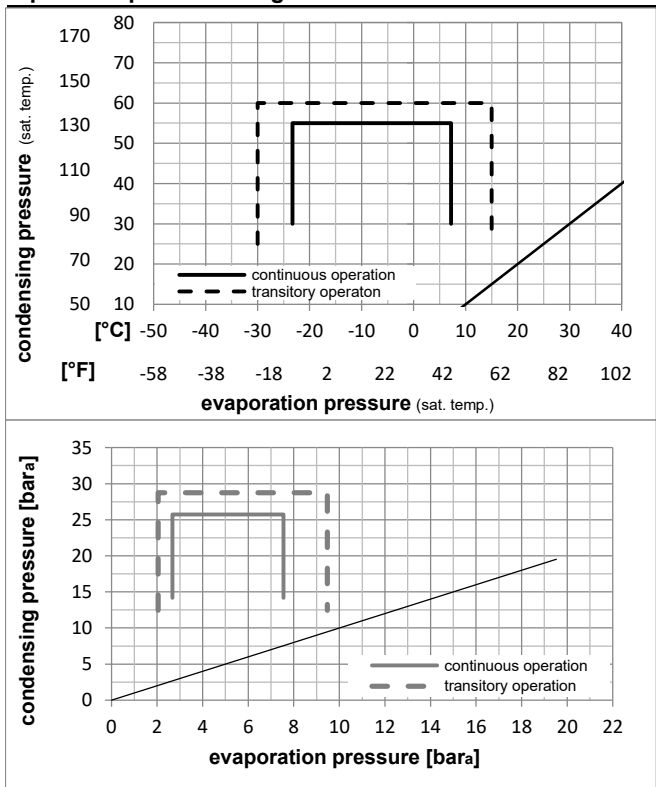


Ambient temperatures / system cooling

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| Ambient temperature min.: | 10°C / 50°F |
| Ambient temperature max.: | 43°C / 110°F |

| System cooling (n/a: outside limits) | | | |
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| 32°C / 90°F | n/a | fan 3m/s | n/a |
| 38°C / 100°F | n/a | fan 3m/s | n/a |
| 43°C / 110°F | n/a | fan 3m/s | n/a |

Operation pressure range



Components

| | | |
|------|---------------------------------|----------|
| a2 | relay (protector: TI MRP56EN-6) | 117U4139 |
| c | start capacitor | 117U5018 |
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Alternative components

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|------|---------------------------------|----------|
| a2 | relay (protector: TI MRP56EN-6) | 117U4139 |
| c | start capacitor | 117U5018 |
| b | plastic cover | 117U1021 |
| d/dc | cord relief | 117U0349 |
| d | cord relief | 117U0317 |

Model

Designation **NF7MLX 208-230V/60Hz** Conf. **2** Sales code: **105F3727**

Optimization + standard conditions

R404A, 230V/60Hz, CSIR, fan 3m/s, VDE, UL

| Evaporating pressure (saturation temperature) | | | | | Condensing pressure (saturation temperature) | | | | | | Power consumption | | | | |
|---|------|------|------|------|--|---------|----------|--------------|----------|-----------|---------------------|------|--------|----------------|--|
| | | | | | Return gas temp. | | | Liquid temp. | | | Current consumption | | | Ref. mass flow | |
| | | | | | Cooling capacity | | | COP | EER | P1 | | | I | m | |
| pe | pc | RGT | Tliq | | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | | |
| [°C] | -6,7 | 54,4 | 35 | 46,1 | 825,7 | 2820 | 710,6 | 1,56 | 5,33 | 1,34 | 529,1 | 3,02 | 22,72 | ASHRAE MBP | |
| [°F] | 20 | 130 | 95 | 115 | | | | | | | | | | | |
| [°C] | -10 | 55 | 32 | 55 | 613,2 | 2094 | 527,8 | 1,24 | 4,23 | 1,06 | 495,6 | 2,90 | 19,63 | cecmaf MBP | |
| [°F] | 14 | 131 | 89,6 | 131 | | | | | | | | | | | |
| [°C] | -10 | 45 | 20 | 45 | 723,6 | 2471 | 622,7 | 1,53 | 5,23 | 1,32 | 472,8 | 2,78 | 21,80 | EN12900 MBP | |
| [°F] | 14 | 113 | 68 | 113 | | | | | | | | | | | |
| [°C] | -6,7 | 48,9 | 18,3 | 48,9 | 753,6 | 2574 | 648,6 | 1,46 | 4,99 | 1,26 | 515,5 | 2,95 | 24,63 | ARI540 MBP | |
| [°F] | 20 | 120 | 65 | 120 | | | | | | | | | | | |
| [°C] | -10 | 45 | 32 | 45 | 768,0 | 2623 | 660,9 | 1,62 | 5,55 | 1,40 | 472,8 | 2,78 | 21,15 | opt | |
| [°F] | 14 | 113 | 89,6 | 113 | | | | | | | | | | | |
| [°C] | -25 | 45 | 32 | 45 | 377,2 | 1288 | 324,6 | 1,09 | 3,74 | 0,94 | 344,9 | 2,32 | 10,17 | opt | |
| [°F] | -13 | 113 | 89,6 | 113 | | | | | | | | | | | |

Performance tables

R404A, 230V/60Hz, CSIR, fan 3m/s, VDE, 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 | 413,4 | 1412 | 355,8 | 1,15 | 3,94 | 0,99 | 358,5 | 2,37 | 11,17 |
| cond. pressure | -20 | -4 | 489,0 | 1670 | 420,9 | 1,27 | 4,33 | 1,09 | 385,4 | 2,47 | 13,27 |
| pc= 45/113 | -15 | 5 | 618,5 | 2112 | 532,3 | 1,45 | 4,94 | 1,24 | 427,8 | 2,62 | 16,89 |
| return gas temp. | -10 | 14 | 768,0 | 2623 | 660,9 | 1,62 | 5,55 | 1,40 | 472,8 | 2,78 | 21,15 |
| RGT= 32/90 | -5 | 23 | 940,0 | 3210 | 809,0 | 1,80 | 6,16 | 1,55 | 520,9 | 2,94 | 26,13 |
| liquid temp | 0 | 32 | 1137,1 | 3883 | 978,6 | 1,98 | 6,78 | 1,71 | 572,9 | 3,11 | 31,97 |
| Tliq= 45/113 | 7,2 | 45 | 1470,0 | 5020 | 1265,1 | 2,24 | 7,65 | 1,93 | 655,8 | 3,35 | 42,15 |
| [°C / °F] | -23 | -10 | 314,5 | 1074 | 270,7 | 0,85 | 2,91 | 0,73 | 368,5 | 2,38 | 9,85 |
| cond. pressure | -20 | -4 | 379,1 | 1295 | 326,2 | 0,95 | 3,25 | 0,82 | 398,7 | 2,51 | 11,93 |
| pc= 55/131 | -15 | 5 | 488,2 | 1667 | 420,2 | 1,09 | 3,74 | 0,94 | 446,0 | 2,70 | 15,48 |
| return gas temp | -10 | 14 | 613,2 | 2094 | 527,8 | 1,24 | 4,23 | 1,06 | 495,6 | 2,90 | 19,63 |
| RGT= 32/90 | -5 | 23 | 756,6 | 2584 | 651,1 | 1,38 | 4,71 | 1,19 | 548,2 | 3,10 | 24,49 |
| liquid temp | 0 | 32 | 920,7 | 3144 | 792,4 | 1,52 | 5,20 | 1,31 | 604,5 | 3,30 | 30,19 |
| Tliq= 55/131 | 7,2 | 45 | 1198,6 | 4094 | 1031,6 | 1,73 | 5,91 | 1,49 | 693,1 | 3,60 | 40,23 |