

Model

| | | | | |
|-------------|----------------|-------------------------|-------------|-----------------|
| Designation | SC12MLX | 115-127V/60Hz 1~ | Sales code: | 104L1606 |
|-------------|----------------|-------------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R404A, R507 |
| Oil viscosity | 32cST | Displacement | 12,87cm ³ / 0,79cu.in |
| Oil quantity | 556cm ³ / 18,8fl.oz | Compressors on pallet | 80 |
| Refr. charge - tech. limit | 1300g / 45,9oz | | |
| Free gas volume comp. | 1460cm ³ / 49,4fl.oz | | |
| Weight | 13,8kg / 30,4lbs | | |
| Motor protection | external | | |
| Winding resistance main | 0,66Ω (at 25°C) | | |
| Winding resistance aux | 2,7Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 130°C / 266°F | | |



General - Configurations with SC12MLX

| | Conf. 1 | Conf. 2 |
|------------------------|---|----------------|
| Motorconfiguration | CSIR | CSCR |
| Power supply (nominal) | 115-127V/60Hz | 115-127V/60Hz |
| Number of phases | 1 | 1 |
| Voltage range | 95-135V | 95-135V |
| Approvals | UL | UL |
| Starting torque | HST | HST |
| Note | Protector and cover are included and pre-assembled to compressor. | |

Applications with SC12MLX

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

Electrical data - Configurations with SC12MLX

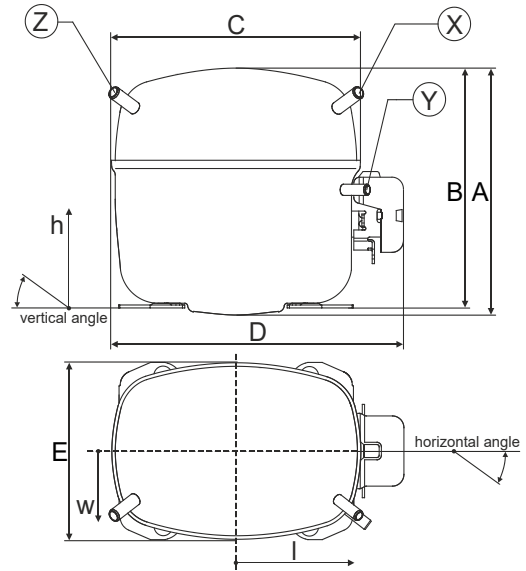
| | Conf. 1 | Conf. 2 |
|------------------------------|----------------|----------------|
| Starting device type | relay | relay |
| Run capacitor | -/- | 23,5μF |
| Start capacitor | 410μF | 410μF |
| LRA (locked rotor amps / 4s) | 56,8A | 54,2A |
| RLA (rated load amps / 1s) | 9,8A | 8,8A |
| Cut in current | 56,8A | 54,2A |

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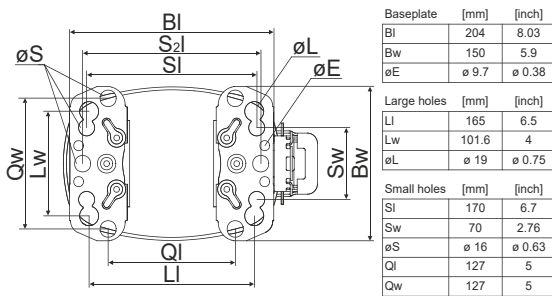
Compressor dimensions

| | | |
|----------------|-------------------|-----------------|
| Housing | A Height | 219mm / 8,62in |
| | B Height | 213mm / 8,39in |
| | C Length shell | 218mm / 8,58in |
| | D Length w. cover | 255mm / 10,04in |
| | E Width | 151mm / 5,94in |

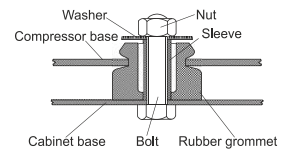


| Connectors | | Suction | Discharge | Process |
|-------------------|----------------------------|----------------|------------------|----------------|
| | | X | Y | Z |
| Diameter | [mm] | øi 8,11-8,29 | øi 6,41-6,59 | øi 6,41-6,59 |
| | (i:inside, o:outside) [in] | øi 0,32-0,33 | øi 0,25-0,26 | øi 0,25-0,26 |
| Material | | copper | copper | copper |
| Horizontal angle | ±2° | 37° | 37° | 143° |
| Vertical angle | ±2° | 30° | 0° | 150° |
| Position l/h/w | [mm] | 107/193/55 | 115/110/63 | -107/193/55 |
| | [in] | 4,2/7,6/2,2 | 4,5/4,3/2,5 | -4,2/7,6/2,2 |
| Straight tube l. | [mm] | 12 | 12 | 12 |
| | [in] | 0,5 | 0,5 | 0,5 |

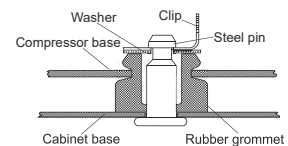
Compressor fixation



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

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

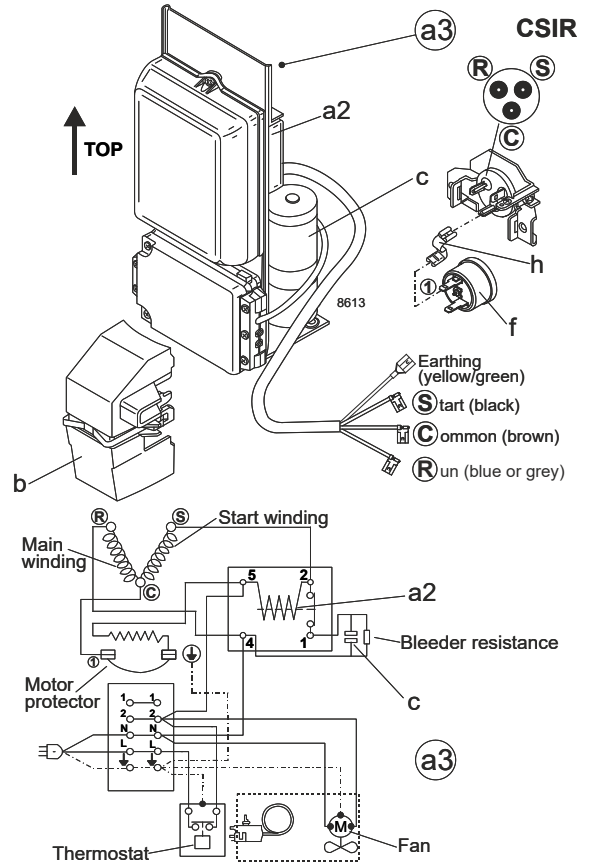
Model

| | | | | | |
|-------------|----------------|----------------------|----------------|-------------|-----------------|
| Designation | SC12MLX | 115-127V/60Hz | Conf. 1 | Sales code: | 104L1606 |
|-------------|----------------|----------------------|----------------|-------------|-----------------|

Configuration

| | | |
|------------------------|------------------|--------|
| Motorconfiguration | CSIR | |
| Power supply (nominal) | 115-127V/60Hz 1~ | |
| Refrigerant | R404A | |
| Application | MBP | |
| Voltage range | 95-135V | |
| Starting torque | HST | |
| Approvals | UL | SA3693 |

Electrical accessories / wiring diagram

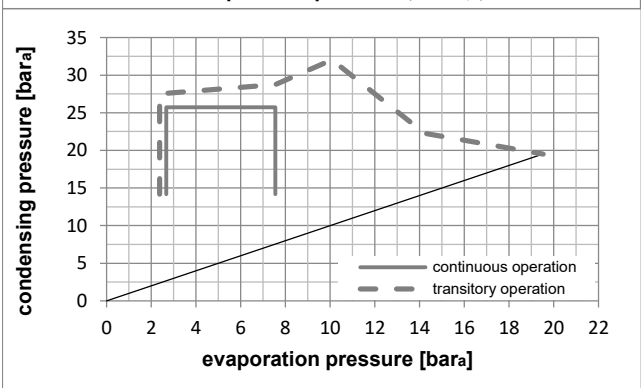
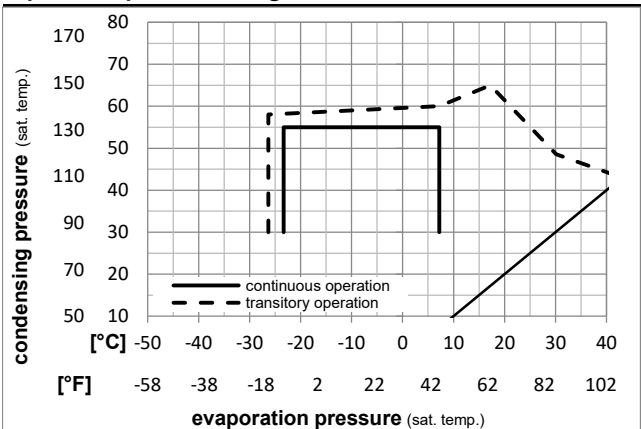


Ambient temperatures / system cooling

| | |
|---------------------------|--------------|
| 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 (protector + ~holder + cover: pre assembled)

| | | |
|----|---------------------------|----------|
| a3 | SC starter kit | 117-7053 |
| f | ext. protector (T0761/46) | 117U3212 |
| h | protector holder | 117U0439 |
| b | plastic cover | 117U1021 |

Alternative comp. (protector + ~holder + cover: pre assemb.)

| | | |
|----|--------------------------------|----------|
| a2 | potential relay (RVA 7AA3R) | 117-7441 |
| c | start capacitor (410µF, 6.3mm) | 117U5042 |
| f | ext. protector (T0761/46) | 117U3212 |
| h | protector holder | 117U0439 |
| b | plastic cover | 117U1021 |

Model

Designation **SC12MLX 115-127V/60Hz** Conf. 1 Sales code: **104L1606**

Optimization + standard conditions

R404A, 115V/60Hz, CSIR, fan 3m/s, 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] | -6,66 | 54,4 | 35 | 46,1 | 1284,6 | 4387 | 1105,6 | 1,52 | 5,20 | 1,31 | 844,0 | 9,09 | 35,35 | ASHRAE MBP | |
| [°F] | 20 | 130 | 95 | 115 | | | | | | | | | | | |
| [°C] | -10 | 55 | 32 | 55 | 950,6 | 3246 | 818,1 | 1,20 | 4,10 | 1,03 | 791,2 | 8,92 | 30,43 | cecomaf MBP | |
| [°F] | 14 | 131 | 89,6 | 131 | | | | | | | | | | | |
| [°C] | -10 | 45 | 20 | 45 | 1125,2 | 3843 | 968,3 | 1,51 | 5,14 | 1,30 | 747,3 | 8,30 | 33,89 | EN12900 MBP | |
| [°F] | 14 | 113 | 68 | 113 | | | | | | | | | | | |
| [°C] | -6,66 | 48,9 | 18,3 | 48,9 | 1173,2 | 4007 | 1009,7 | 1,44 | 4,93 | 1,24 | 812,9 | 8,88 | 38,34 | ARI540 MBP | |
| [°F] | 20 | 120 | 65 | 120 | | | | | | | | | | | |
| [°C] | -10 | 45 | 32 | 45 | 1194,1 | 4078 | 1027,7 | 1,60 | 5,46 | 1,38 | 747,3 | 8,30 | 32,88 | opt | |
| [°F] | 14 | 113 | 89,6 | 113 | | | | | | | | | | | |
| [°C] | -25 | 45 | 32 | 45 | 606,0 | 2070 | 521,6 | 1,09 | 3,72 | 0,94 | 555,9 | 6,50 | 16,35 | opt | |
| [°F] | -13 | 113 | 89,6 | 113 | | | | | | | | | | | |

Performance tables

R404A, 115V/60Hz, CSIR, fan 3m/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] | -25 | -13 | 606,0 | 2070 | 521,6 | 1,09 | 3,72 | 0,94 | 555,9 | 6,50 | 16,35 | |
| cond. pressure | -23,3 | -10 | 657,0 | 2244 | 565,4 | 1,14 | 3,89 | 0,98 | 576,7 | 6,85 | 17,75 | |
| pc= 45/113 | -15 | 5 | 963,9 | 3292 | 829,5 | 1,41 | 4,82 | 1,22 | 682,3 | 7,90 | 26,33 | |
| return gas temp. | -9,4 | 15 | 1222,0 | 4173 | 1051,7 | 1,62 | 5,53 | 1,39 | 754,6 | 8,35 | 33,69 | |
| RGT= 32/90 | -3,9 | 25 | 1528,5 | 5220 | 1315,4 | 1,84 | 6,29 | 1,59 | 829,5 | 8,97 | 42,59 | |
| liquid temp | 0 | 32 | 1774,2 | 6059 | 1526,9 | 2,01 | 6,86 | 1,73 | 883,7 | 9,69 | 49,88 | |
| Tliq= 45/113 | 7,2 | 45 | 2304,7 | 7871 | 1983,4 | 2,33 | 7,95 | 2,00 | 989,7 | 12,08 | 66,09 | |
| [°C / °F] | -25 | -13 | 453,7 | 1549 | 390,4 | 0,84 | 2,88 | 0,72 | 538,6 | 6,61 | 14,18 | |
| cond. pressure | -23,3 | -10 | 496,7 | 1696 | 427,4 | 0,88 | 2,99 | 0,75 | 567,0 | 7,11 | 15,56 | |
| pc= 55/131 | -15 | 5 | 755,6 | 2581 | 650,3 | 1,07 | 3,65 | 0,92 | 707,5 | 8,55 | 23,96 | |
| return gas temp | -9,4 | 15 | 974,3 | 3327 | 838,5 | 1,22 | 4,16 | 1,05 | 800,5 | 8,95 | 31,22 | |
| RGT= 32/90 | -3,9 | 25 | 1235,1 | 4218 | 1062,9 | 1,38 | 4,72 | 1,19 | 893,9 | 9,27 | 40,09 | |
| liquid temp | 0 | 32 | 1445,3 | 4936 | 1243,8 | 1,51 | 5,14 | 1,30 | 959,9 | 9,63 | 47,40 | |
| Tliq= 55/131 | 7,2 | 45 | 1901,9 | 6495 | 1636,8 | 1,75 | 5,99 | 1,51 | 1085,0 | 11,03 | 63,83 | |

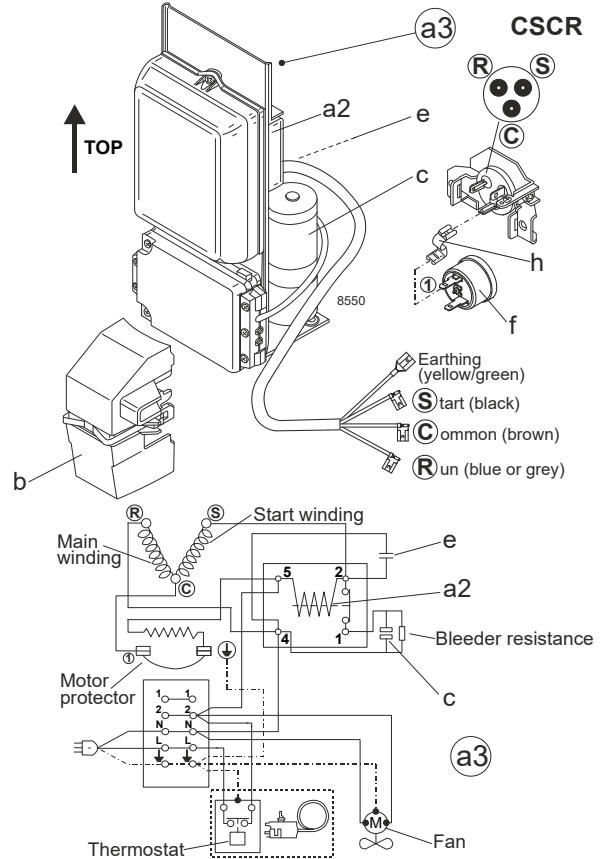
Model

| | | | | | |
|-------------|----------------|----------------------|----------------|-------------|-----------------|
| Designation | SC12MLX | 115-127V/60Hz | Conf. 2 | Sales code: | 104L1606 |
|-------------|----------------|----------------------|----------------|-------------|-----------------|

Configuration

| | | |
|------------------------|------------------|--------|
| Motorconfiguration | CSCR | |
| Power supply (nominal) | 115-127V/60Hz 1~ | |
| Refrigerant | R404A | |
| Application | MBP | |
| Voltage range | 95-135V | |
| Starting torque | HST | |
| Approvals | UL | SA3693 |

Electrical accessories / wiring diagram

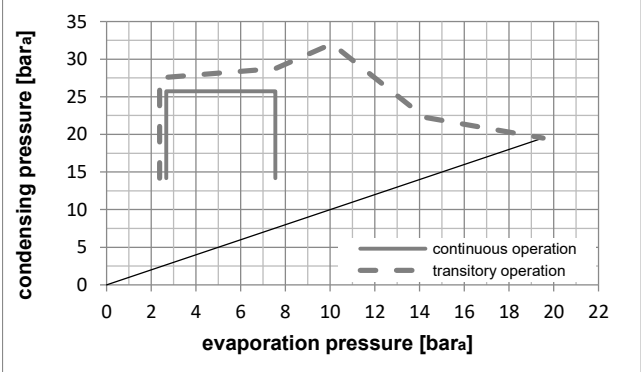
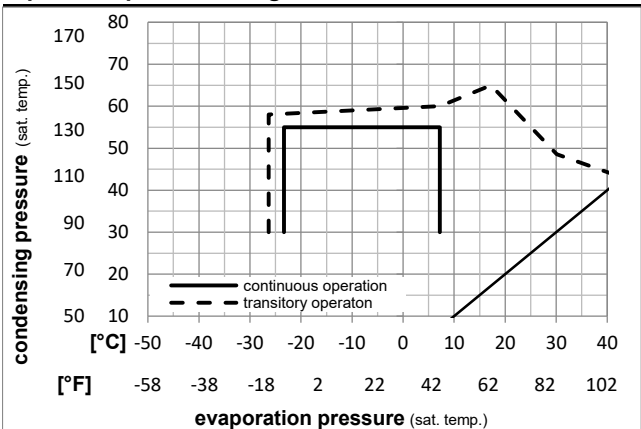


Ambient temperatures / system cooling

| | |
|---------------------------|--------------|
| 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 (protector + ~holder + cover: pre assembled)

| | | |
|----|---------------------------|----------|
| a3 | SC starter kit | 117-7045 |
| f | ext. protector (T0761/46) | 117U3212 |
| h | protector holder | 117U0439 |
| b | plastic cover | 117U1021 |

Alternative comp. (protector + ~holder + cover: pre assemb.)

| | | |
|----|--------------------------------|----------|
| a2 | potential relay (RVA 7AA3R) | 117-7441 |
| f | ext. protector (T0761/46) | 117U3212 |
| h | protector holder | 117U0439 |
| c | start capacitor (410µF, 6.3mm) | 117U5042 |
| c | start capacitor (410µF, 6.3mm) | 117U5379 |
| e | run capacitor (23,5µF, 6.3mm) | 117-7133 |

Model

Designation **SC12MLX 115-127V/60Hz** Conf. 2 Sales code: **104L1606**

Optimization + standard conditions

R404A, 115V/60Hz, CSCR, fan 3m/s, UL

| Evaporating pressure (saturation temperature) | | | | | Condensing pressure (saturation temperature) | | | | | | Power consumption | | | | ASHRAE MBP |
|---|------|------|------|--|--|---------|----------|--------------|----------|-----------|---------------------|------|--------|---------------------|---------------|
| | | | | | Return gas temp. | | | Liquid temp. | | | Current consumption | | | Ref. mass flow ṁ | |
| | | | | | | | | | | | P1 | I | | | |
| pe | pc | RGT | Tliq | | [W] | [Btu/h] | [kcal/h] | COP | EER | | [W] | [A] | [kg/h] | | |
| [°C] | [°F] | | | | | | | [W/W] | [Btu/Wh] | [kcal/Wh] | | | | | |
| -6,7 | 54,4 | 35 | 46,1 | | 1300,3 | 4441 | 1119,0 | 1,61 | 5,48 | 1,38 | 809,6 | 8,05 | 35,78 | ASHRAE MBP | |
| 20 | 130 | 95 | 115 | | | | | | | | | | | | |
| -10 | 55 | 32 | 55 | | 961,9 | 3285 | 827,8 | 1,27 | 4,32 | 1,09 | 760,0 | 7,70 | 30,79 | cecomaf MBP | |
| 14 | 131 | 89,6 | 131 | | | | | | | | | | | | |
| -10 | 45 | 20 | 45 | | 1138,4 | 3888 | 979,8 | 1,59 | 5,42 | 1,37 | 717,6 | 7,42 | 34,29 | EN12900 MBP | |
| 14 | 113 | 68 | 113 | | | | | | | | | | | | |
| -6,7 | 48,9 | 18,3 | 48,9 | | 1187,3 | 4055 | 1021,8 | 1,52 | 5,20 | 1,31 | 780,1 | 7,84 | 38,80 | ARI540 MBP | |
| 20 | 120 | 65 | 120 | | | | | | | | | | | | |
| -10 | 45 | 32 | 45 | | 1208,2 | 4126 | 1039,8 | 1,68 | 5,75 | 1,45 | 717,6 | 7,42 | 33,27 | opt | |
| 14 | 113 | 89,6 | 113 | | | | | | | | | | | | |
| -25 | 45 | 32 | 45 | | 613,0 | 2093 | 527,5 | 1,15 | 3,91 | 0,99 | 534,8 | 6,16 | 16,53 | opt | |
| -13 | 113 | 89,6 | 113 | | | | | | | | | | | | |

Performance tables

R404A, 115V/60Hz, CSCR, fan 3m/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] | -25 | -13 | 613,0 | 2093 | 527,5 | 1,15 | 3,91 | 0,99 | 534,8 | 6,16 | 16,53 | | |
| cond. pressure | -23 | -10 | 664,5 | 2269 | 571,9 | 1,20 | 4,09 | 1,03 | 555,3 | 6,29 | 17,96 | | |
| pc= 45/113 | -15 | 5 | 975,1 | 3330 | 839,2 | 1,49 | 5,07 | 1,28 | 656,2 | 6,98 | 26,64 | | |
| return gas temp. | -9,4 | 15 | 1236,5 | 4223 | 1064,1 | 1,71 | 5,83 | 1,47 | 724,5 | 7,47 | 34,08 | | |
| RGT= 32/90 | -3,9 | 25 | 1547,0 | 5283 | 1331,3 | 1,94 | 6,64 | 1,67 | 795,7 | 8,00 | 43,11 | | |
| liquid temp | 0 | 32 | 1796,0 | 6134 | 1545,7 | 2,12 | 7,23 | 1,82 | 848,4 | 8,41 | 50,49 | | |
| Tliq= 45/113 | 7,2 | 45 | 2334,0 | 7971 | 2008,7 | 2,44 | 8,35 | 2,10 | 954,8 | 9,26 | 66,93 | | |
| [°C / °F] | -25 | -13 | 458,8 | 1567 | 394,9 | 0,88 | 3,02 | 0,76 | 519,1 | 5,94 | 14,34 | | |
| cond. pressure | -23 | -10 | 502,3 | 1716 | 432,3 | 0,92 | 3,14 | 0,79 | 547,0 | 6,15 | 15,73 | | |
| pc= 55/131 | -15 | 5 | 764,4 | 2610 | 657,8 | 1,12 | 3,83 | 0,97 | 681,4 | 7,13 | 24,24 | | |
| return gas temp | -9,4 | 15 | 985,9 | 3367 | 848,5 | 1,28 | 4,38 | 1,10 | 768,8 | 7,76 | 31,60 | | |
| RGT= 32/90 | -3,9 | 25 | 1250,4 | 4270 | 1076,1 | 1,46 | 4,99 | 1,26 | 856,5 | 8,40 | 40,58 | | |
| liquid temp | 0 | 32 | 1463,7 | 4999 | 1259,7 | 1,59 | 5,44 | 1,37 | 919,3 | 8,85 | 48,00 | | |
| Tliq= 55/131 | 7,2 | 45 | 1927,4 | 6582 | 1658,8 | 1,85 | 6,32 | 1,59 | 1041,0 | 9,75 | 64,69 | | |