

Model

| | | | | |
|-------------|----------------|------------------|-------------|-----------------|
| Designation | NLE11MN | 115-127V/60Hz 1~ | Sales code: | 105H5982 |
|-------------|----------------|------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R290 |
| Oil viscosity | 32cST | Displacement | 11,15cm ³ / 0,68cu.in |
| Oil quantity | 300cm ³ / 10,1fl.oz | Compressors on pallet | 80 |
| Refr. charge - tech. limit | 150g / 5,3oz | | |
| Free gas volume comp. | 2360cm ³ / 79,8fl.oz | | |
| Weight | 12,14kg / 26,8lbs | | |
| Motor protection | 1# internal | | |
| Winding resistance main | 0,8Ω (at 25°C) | | |
| Winding resistance aux | 3,25Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 130°C / 266°F | | |



General - Configurations with NLE11MN

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

Applications with NLE11MN

| | Conf. 1 | Conf. 2 |
|-------------------------|----------------|----------------|
| Refrigerant | R290 | R290 |
| 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 NLE11MN

| | Conf. 1 | Conf. 2 |
|------------------------------|----------------|----------------|
| Starting device type | relay | relay |
| Run capacitor | -/- | -/- |
| Start capacitor | 240μF | 240μF |
| LRA (locked rotor amps / 4s) | 40,23A | 40,23A |
| RLA (rated load amps / 1s) | 8,37A | 8,37A |
| Cut in current | 40,23A | 40,23A |
| IP class | 21 | 21 |

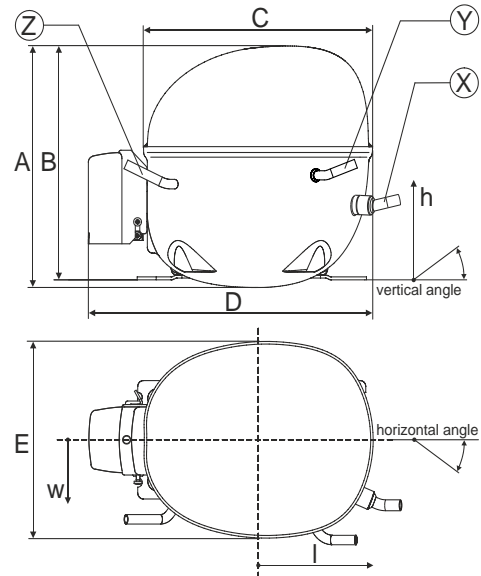
Model

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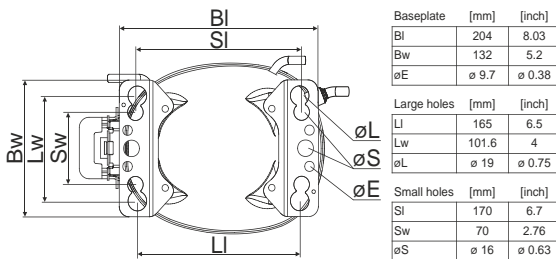
Compressor dimensions

| | | |
|----------------|-------------------|----------------|
| 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 |

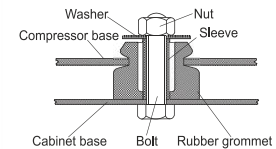
| Connectors | Suction | | Discharge | Process |
|----------------------------|--------------|--------------|--------------|--------------|
| | X | Y | Z | |
| Diameter [mm] | øi 8,11-8,29 | øi 6,41-6,59 | øi 6,41-6,59 | øi 6,41-6,59 |
| (i:inside, o:outside) [in] | øi 0,32-0,33 | øi 0,25-0,26 | øi 0,25-0,26 | øi 0,25-0,26 |
| Material | copper | copper | copper | copper |
| Horizontal angle | ±2° 22° | 0° | 0° | 0° |
| Vertical angle | ±2° 45° | 15° | 155° | 155° |
| Position l/h/w [mm] | 128/79/61 | 88/95/85 | -112/97/68 | |
| [in] | 5/3,1/2,4 | 3,5/3,7/3,3 | -4,4/3,8/2,7 | |
| Straight tube l. [mm] | 12 | 12 | 12 | |
| [in] | 0,5 | 0,5 | 0,5 | |



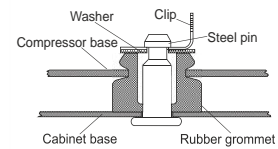
Compressor fixation



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.

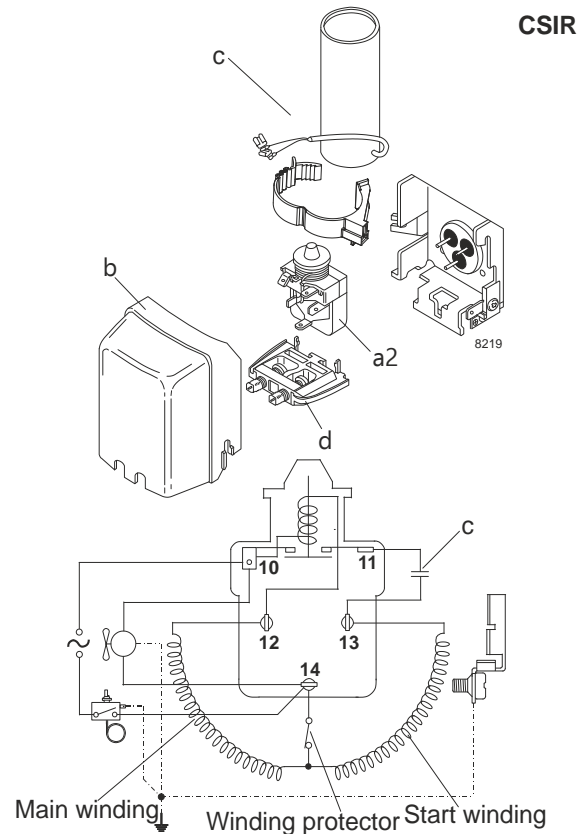
Model

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|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | NLE11MN | 115V/60Hz | Conf. 1 | Sales code: | 105H5982 |
|-------------|----------------|------------------|----------------|-------------|-----------------|

Configuration

| | | |
|------------------------|--------------|--------|
| Motorconfiguration | CSIR | |
| Power supply (nominal) | 115V/60Hz 1~ | |
| Refrigerant | R290 | |
| Application | MBP | |
| Voltage range | 95-127V | |
| Starting torque | HST | |
| Approvals | UL | SA3693 |
| | CCC | |

Electrical accessories / wiring diagram

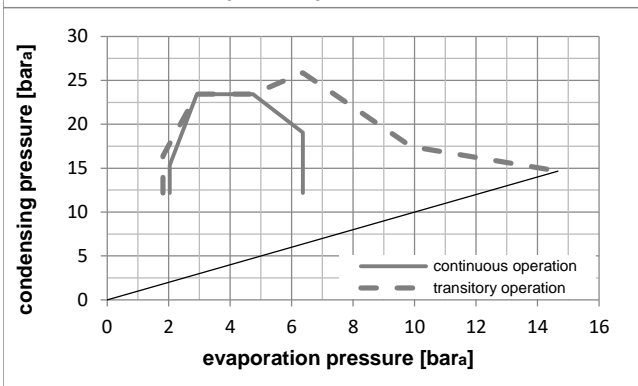
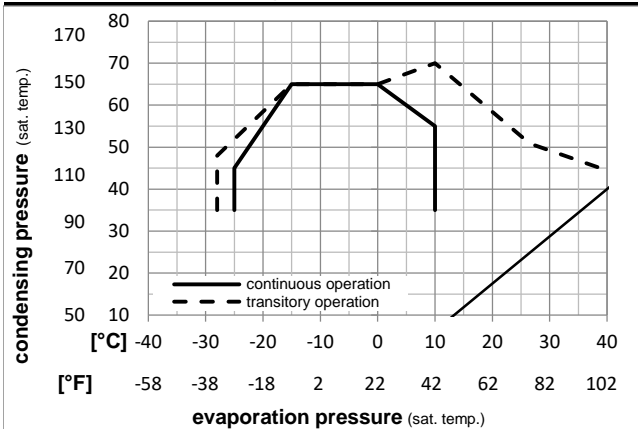


Ambient temperatures / system cooling

| | |
|---------------------------|--------------|
| 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 (already pre-assembled)

| | | |
|----|---------------------------------|----------|
| a2 | relay | 117U7020 |
| c | start capacitor (240µF, 15kOhm) | 117U5034 |
| b | plastic cover | 103N2011 |
| d | cord relief | 103N1010 |

Model

Designation **NLE11MN 115V/60Hz** Conf. 1 Sales code: **105H5982**

Optimization + standard conditions

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

| | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | Return gas temp. | | Liquid temp. | | Cooling capacity | | | COP | EER | P1 | Current consumption | | Ref. mass flow 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 | 1202,7 | 4107 | 1035,1 | 2,04 | 6,97 | 1,76 | 589,1 | 7,15 | 13,72 | ASHRAE MBP | | | | | | | |
| [°F] | 20 | 130 | 95 | 115 | | | | | | | | | | | | | | | | | |
| [°C] | -10 | 55 | 32 | 55 | 959,7 | 3278 | 825,9 | 1,71 | 5,83 | 1,47 | 561,8 | 6,96 | 12,14 | cecomaf MBP | | | | | | | |
| [°F] | 14 | 131 | 89,6 | 131 | | | | | | | | | | | | | | | | | |
| [°C] | -10 | 45 | 20 | 45 | 1058,4 | 3615 | 910,9 | 2,04 | 6,96 | 1,75 | 519,1 | 6,77 | 12,99 | EN12900 MBP | | | | | | | |
| [°F] | 14 | 113 | 68 | 113 | | | | | | | | | | | | | | | | | |
| [°C] | -6,66 | 48,9 | 18,3 | 48,9 | 1124,6 | 3841 | 967,8 | 2,00 | 6,83 | 1,72 | 562,1 | 7,01 | 14,60 | ARI540 MBP | | | | | | | |
| [°F] | 20 | 120 | 65 | 120 | | | | | | | | | | | | | | | | | |
| [°C] | -10 | 45 | 32 | 45 | 1101,8 | 3763 | 948,2 | 2,12 | 7,25 | 1,83 | 519,1 | 6,77 | 12,61 | opt | | | | | | | |
| [°F] | 14 | 113 | 89,6 | 113 | | | | | | | | | | | | | | | | | |
| [°C] | -25 | 45 | 32 | 45 | 594,0 | 2029 | 511,2 | 1,45 | 4,94 | 1,24 | 410,8 | 6,09 | 6,70 | opt | | | | | | | |
| [°F] | -13 | 113 | 89,6 | 113 | | | | | | | | | | | | | | | | | |

Performance tables

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

| | 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 | 594,0 | 2029 | 511,2 | 1,45 | 4,94 | 1,24 | 410,8 | 6,09 | 6,70 |
| cond. pressure | -23,3 | -10 | 642,1 | 2193 | 552,6 | 1,52 | 5,18 | 1,31 | 422,9 | 6,17 | 7,25 |
| pc= 45/113 | -15 | 5 | 912,1 | 3115 | 784,9 | 1,89 | 6,44 | 1,62 | 483,7 | 6,54 | 10,38 |
| return gas temp. | -9,4 | 15 | 1124,4 | 3840 | 967,7 | 2,15 | 7,34 | 1,85 | 523,0 | 6,79 | 12,87 |
| RGT= 32/90 | 0 | 32 | 1558,6 | 5323 | 1341,3 | 2,67 | 9,11 | 2,29 | 584,5 | 7,21 | 18,08 |
| liquid temp | 4,4 | 40 | 1799,8 | 6147 | 1548,9 | 2,95 | 10,08 | 2,54 | 609,9 | 7,38 | 21,03 |
| Tliq= 45/113 | 10 | 50 | 2139,1 | 7305 | 1840,9 | 3,36 | 11,46 | 2,89 | 637,3 | 7,58 | 25,28 |
| [°C / °F] | -25 | -13 | 498,1 | 1701 | 428,7 | 1,18 | 4,03 | 1,01 | 422,5 | 6,09 | 6,20 |
| cond. pressure | -23,3 | -10 | 542,7 | 1853 | 467,1 | 1,24 | 4,23 | 1,07 | 438,1 | 6,18 | 6,77 |
| pc= 55/131 | -15 | 5 | 789,0 | 2695 | 679,0 | 1,53 | 5,22 | 1,32 | 515,9 | 6,66 | 9,92 |
| return gas temp | -9,4 | 15 | 979,9 | 3347 | 843,3 | 1,73 | 5,90 | 1,49 | 566,8 | 7,00 | 12,40 |
| RGT= 32/90 | 0 | 32 | 1367,3 | 4670 | 1176,7 | 2,11 | 7,20 | 1,82 | 648,2 | 7,57 | 17,56 |
| liquid temp | 4,4 | 40 | 1582,1 | 5403 | 1361,5 | 2,32 | 7,91 | 1,99 | 683,0 | 7,83 | 20,49 |
| Tliq= 55/131 | 10 | 50 | 1884,1 | 6435 | 1621,5 | 2,61 | 8,91 | 2,24 | 722,4 | 8,13 | 24,70 |

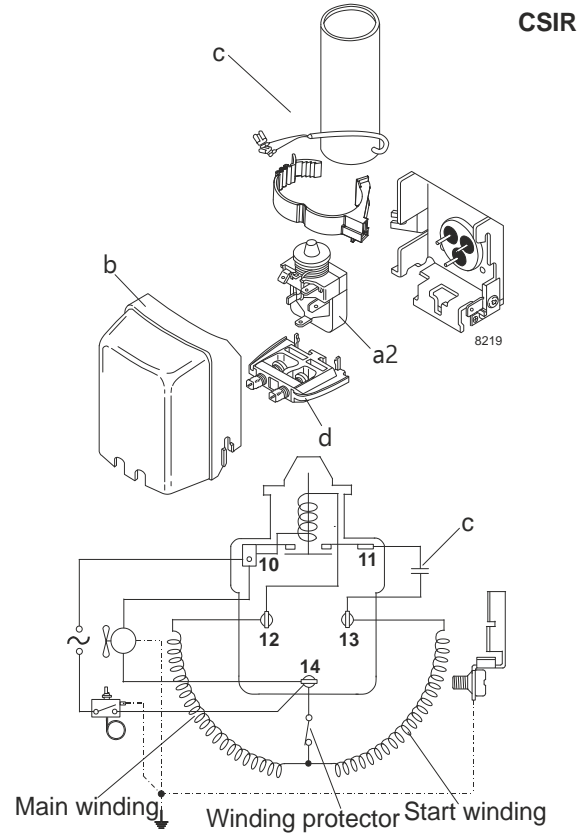
Model

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|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | NLE11MN | 115V/60Hz | Conf. 2 | Sales code: | 105H5982 |
|-------------|----------------|------------------|----------------|-------------|-----------------|

Configuration

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|------------------------|--------------|--------|
| Motorconfiguration | CSIR | |
| Power supply (nominal) | 115V/60Hz 1~ | |
| Refrigerant | R290 | |
| Application | MBP | |
| Voltage range | 95-135V | |
| Starting torque | HST | |
| Approvals | UL | SA3693 |
| | CCC | |

Electrical accessories / wiring diagram

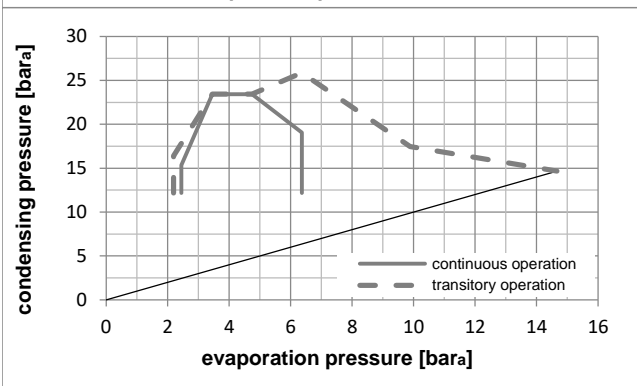
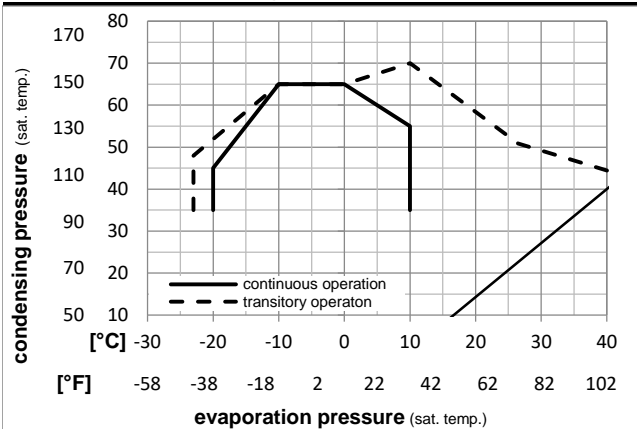


Ambient temperatures / system cooling

| | |
|---------------------------|--------------|
| 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 (already pre-assembled)

| | | |
|----|---------------------------------|----------|
| a2 | relay | 117U7020 |
| c | start capacitor (240µF, 15kOhm) | 117U5034 |
| b | plastic cover | 103N2011 |
| d | cord relief | 103N1010 |

Model

Designation **NLE11MN 115V/60Hz** Conf. 2 Sales code: **105H5982**

Optimization + standard conditions

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

| Evaporating pressure (saturation temperature) | | Condensing pressure (saturation temperature) | | | | Return gas temp. | | Liquid temp. | | Cooling capacity | | | COP | | EER | | Power consumption | | Ref. mass flow m | ASHRAE MBP |
|---|------|--|------|------|---------|------------------|-------|--------------|-----------|------------------|------|--------|------|-------|------|-------|-------------------|--|---------------------|---------------|
| pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1 | I | [kg/h] | | | | | | | | |
| [°C] | [°F] | [°C] | [°F] | [°C] | [°F] | [°C] | [°F] | [°C] | [°F] | [W] | [A] | [kg/h] | | | | | | | | |
| -6,66 | 20 | 54,4 | 130 | 35 | 95 | 46,1 | 115 | 1202,7 | 4107 | 1035,1 | 2,04 | 6,97 | 1,76 | 589,1 | 7,15 | 13,72 | ASHRAE MBP | | | |
| -10 | 14 | 55 | 131 | 32 | 89,6 | 55 | 131 | 959,7 | 3278 | 825,9 | 1,71 | 5,83 | 1,47 | 561,8 | 6,96 | 12,14 | cecomaf MBP | | | |
| -10 | 14 | 45 | 113 | 20 | 68 | 45 | 113 | 1058,4 | 3615 | 910,9 | 2,04 | 6,96 | 1,75 | 519,1 | 6,77 | 12,99 | EN12900 MBP | | | |
| -6,66 | 20 | 48,9 | 120 | 18,3 | 65 | 48,9 | 120 | 1124,6 | 3841 | 967,8 | 2,00 | 6,83 | 1,72 | 562,1 | 7,01 | 14,60 | ARI540 MBP | | | |
| -10 | 14 | 45 | 113 | 32 | 89,6 | 45 | 113 | 1101,8 | 3763 | 948,2 | 2,12 | 7,25 | 1,83 | 519,1 | 6,77 | 12,61 | opt | | | |
| -25 | -13 | 45 | 113 | 32 | 89,6 | 45 | 113 | 594,0 | 2029 | 511,2 | 1,45 | 4,94 | 1,24 | 410,8 | 6,09 | 6,70 | opt | | | |

Performance tables

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

| [°C / °F] | 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] |
| -20 | -4 | 743,8 | 2540 | 640,1 | 1,66 | 5,68 | 1,43 | 447,3 | 6,31 | 8,42 | |
| cond. pressure | -15 | 5 | 912,1 | 3115 | 784,9 | 1,89 | 6,44 | 1,62 | 483,7 | 6,54 | 10,38 |
| pc= 45/113 | -9,4 | 15 | 1124,4 | 3840 | 967,7 | 2,15 | 7,34 | 1,85 | 523,0 | 6,79 | 12,87 |
| return gas temp. | -6,7 | 20 | 1241,9 | 4241 | 1068,8 | 2,29 | 7,83 | 1,97 | 541,9 | 6,92 | 14,27 |
| RGT= 32/90 | 0 | 32 | 1558,6 | 5323 | 1341,3 | 2,67 | 9,11 | 2,29 | 584,5 | 7,21 | 18,08 |
| liquid temp | 4,4 | 40 | 1799,8 | 6147 | 1548,9 | 2,95 | 10,08 | 2,54 | 609,9 | 7,38 | 21,03 |
| Tliq= 45/113 | 10 | 50 | 2139,1 | 7305 | 1840,9 | 3,36 | 11,46 | 2,89 | 637,3 | 7,58 | 25,28 |
| -20 | -4 | 636,2 | 2173 | 547,5 | 1,36 | 4,63 | 1,17 | 469,2 | 6,37 | 7,96 | |
| cond. pressure | -15 | 5 | 789,0 | 2695 | 679,0 | 1,53 | 5,22 | 1,32 | 515,9 | 6,66 | 9,92 |
| pc= 55/131 | -9,4 | 15 | 979,9 | 3347 | 843,3 | 1,73 | 5,90 | 1,49 | 566,8 | 7,00 | 12,40 |
| return gas temp | -6,7 | 20 | 1085,0 | 3705 | 933,8 | 1,83 | 6,26 | 1,58 | 591,6 | 7,17 | 13,79 |
| RGT= 32/90 | 0 | 32 | 1367,3 | 4670 | 1176,7 | 2,11 | 7,20 | 1,82 | 648,2 | 7,57 | 17,56 |
| liquid temp | 4,4 | 40 | 1582,1 | 5403 | 1361,5 | 2,32 | 7,91 | 1,99 | 683,0 | 7,83 | 20,49 |
| Tliq= 55/131 | 10 | 50 | 1884,1 | 6435 | 1621,5 | 2,61 | 8,91 | 2,24 | 722,4 | 8,13 | 24,70 |