

NLE13KTK Energy-optimized Tropical Compressor R600a 115-127V 60Hz

General

| | |
|-----------------------|----------|
| Code number | 105H5949 |
| Approvals | UL984 |
| Compressors on pallet | 80 |

Application

| Application | LBP/MBP | | | |
|--|---------|----|--------------------------------|--|
| | Hz | 50 | 60 | |
| Evaporating temperature | °F | - | LBP: -30 to 10 MBP: 0 to 40 | |
| Voltage range | V | - | 93 - 135 | |
| Max. condensing temperature continuous (short) | °F | - | 140 (158) | |
| Max. winding temperature continuous (short) | °F | - | 257 (275) | |

Cooling requirements

| Frequency | Hz | 50 | | | 60 | | |
|-----------|----|-----|-----|-----|----------------|----------------|-----|
| | | LBP | MBP | HBP | LBP | MBP | HBP |
| 90°F | | - | - | - | F ₁ | F ₁ | - |
| 100°F | | - | - | - | F ₁ | F ₁ | - |
| 110°F | | - | - | - | F ₁ | F ₁ | - |

Remarks on application: voltage range MBP 103 - 135 V

Fan and other accessories near the compressor have to be of "n" type protection according to IEC 79-15. MBP & commercial application only with timer function for ensuring pressure equalization, e.g. *Danfoss Electronic Thermostate type ETC1*.

Motor

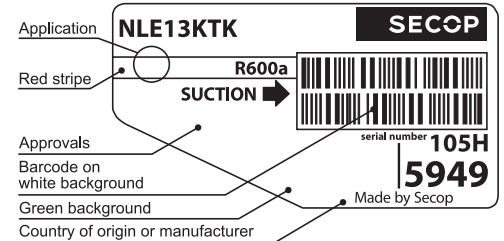
| Motor type | RSIR/RSCR | | |
|---|-----------|-----|------|
| LRA (rated after 4 sec. UL984), HST LST | A | - | 28.0 |
| Cut in Current, HST LST | A | - | 18.8 |
| Resistance, main start winding (77°F) | Ω | 1.9 | 3.9 |

Design

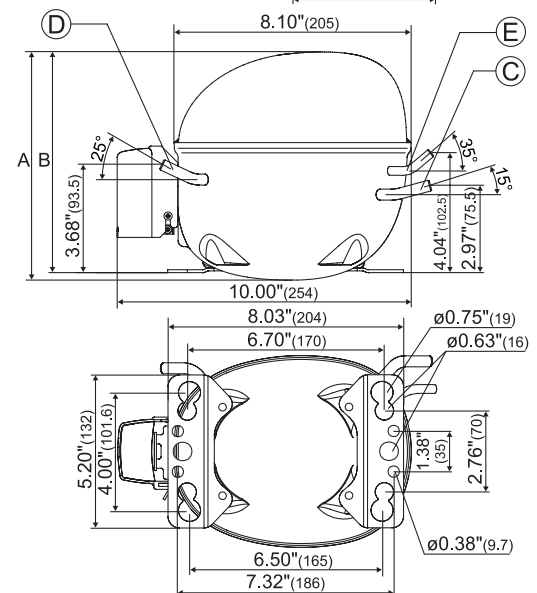
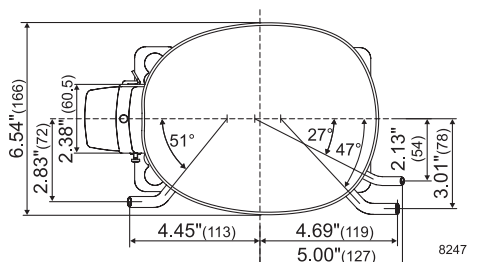
| | | |
|-------------------------------------|--------|---------------------|
| Displacement | cu.in | 0.81 |
| Oil quantity (type) | fl.oz. | 10.14 (polyolester) |
| Maximum refrigerant charge | oz. | 5.3 |
| Free gas volume in compressor | fl.oz. | 79.7 |
| Weight without electrical equipment | lbs. | 22.0 |

Dimensions

| Height | inch | A | 7.76 |
|----------------------|----------------------------|----|----------------------|
| | | B | 7.52 |
| | | B1 | - |
| | | B2 | - |
| Suction connector | location, I.D. in. angle | C | 0.252-0.259 15° |
| | material comment | | Copper Rubber plug |
| Process connector | location, I.D. in. angle | D | 0.252-0.259 25° |
| | material comment | | Copper Rubber plug |
| Discharge connector | location, I.D. in. angle | E | 0.202-0.205 35° |
| | material comment | | Copper Rubber plug |
| Oil cooler connector | location, I.D. in. angle | F | - |
| | material comment | | - |
| Remarks: | | | |



- S = Static cooling normally sufficient
- O = Oil cooling
- F₁ = Fan cooling 1.5 m/s (compressor compartment temperature equal to ambient temperature)
- F₂ = Fan cooling 3.0 m/s necessary
- SG = Suction gas cooling normally sufficient
- = not applicable in this area



ASHRAE LBP

Static cooling 115V 60Hz, PTC consumption incl.

| | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|------|------|------|------|------|------|----|----|----|----|----|
| Evap. temp. in °F | -49 | -40 | -30 | -20 | -13 | -10 | 0 | 10 | 20 | 30 | 40 | 41 | 45 | 50 | 59 | 68 |
| Capacity in BTU/h | | | 424 | 573 | 710 | 760 | 1033 | 1346 | 1816 | 2210 | 2600 | | | | | |
| Power cons. in W | | | 133 | 162 | 181 | 185 | 215 | 240 | 291 | 324 | 353 | | | | | |
| Current cons. in A | | | 2.40 | 2.55 | 2.65 | 2.69 | 2.83 | 2.99 | 3.31 | 3.63 | 3.82 | | | | | |
| EER in BTU/Wh | | | 3.19 | 3.54 | 3.92 | 4.11 | 4.80 | 5.61 | 6.24 | 6.82 | 7.37 | | | | | |

ASHRAE MBP

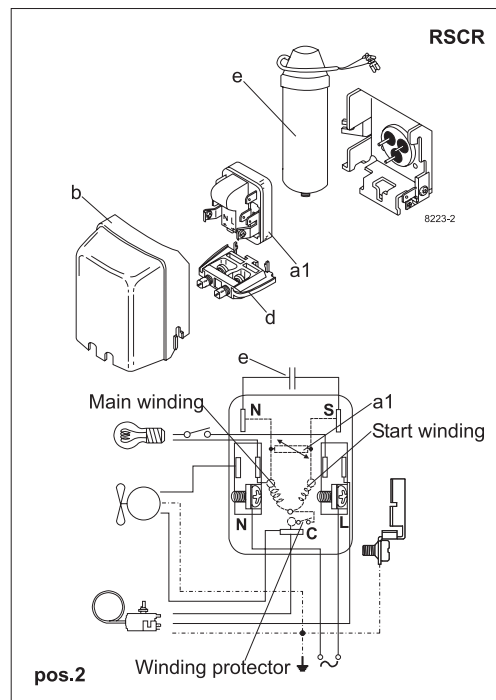
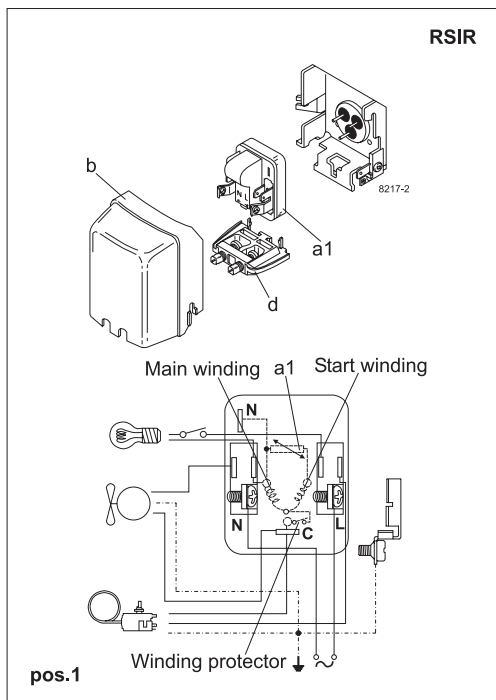
Static cooling 115V 60Hz, PTC consumption incl.

| | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|------|------|------|------|------|------|----|----|----|----|----|
| Evap. temp. in °F | -49 | -40 | -30 | -20 | -13 | -10 | 0 | 10 | 20 | 30 | 40 | 41 | 45 | 50 | 59 | 68 |
| Capacity in BTU/h | | | 385 | 520 | 644 | 690 | 937 | 1221 | 1647 | 2004 | 2357 | | | | | |
| Power cons. in W | | | 133 | 162 | 181 | 185 | 215 | 240 | 291 | 324 | 353 | | | | | |
| Current cons. in A | | | 2.40 | 2.55 | 2.65 | 2.69 | 2.83 | 2.99 | 3.31 | 3.63 | 3.82 | | | | | |
| EER in BTU/Wh | | | 2.89 | 3.21 | 3.56 | 3.73 | 4.36 | 5.09 | 5.66 | 6.19 | 6.68 | | | | | |

EN 12900 Household (CECOMAF)

Static cooling 115V 60Hz, PTC consumption incl.

| | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|------|------|------|------|------|------|----|----|----|----|----|
| Evap. temp. in °F | -49 | -40 | -30 | -20 | -13 | -10 | 0 | 10 | 20 | 30 | 40 | 41 | 45 | 50 | 59 | 68 |
| Capacity in W | | | 102 | 138 | 171 | 183 | 249 | 324 | 437 | 532 | 625 | | | | | |
| Power cons. in W | | | 133 | 162 | 181 | 185 | 215 | 240 | 291 | 324 | 353 | | | | | |
| Current cons. in A | | | 2.40 | 2.55 | 2.65 | 2.69 | 2.83 | 2.99 | 3.31 | 3.63 | 3.82 | | | | | |
| COP in W/W | | | 0.77 | 0.85 | 0.95 | 0.99 | 1.16 | 1.35 | 1.50 | 1.64 | 1.77 | | | | | |



| Accessories for | NLE13KTK | Figure | Code number |
|---------------------|-------------------------|---------|-------------|
| PTC starting device | 1/4 in. spade connect. | a1 | 103N0026 |
| | 3/16 in. spade connect. | (pos.1) | 103N0023 |
| PTC starting device | 1/4 in. spade connect. | a1 | 103N0027 |
| | 3/16 in. spade connect. | (pos.2) | 103N0024 |
| Cover | | b | 103N2010 |
| Cord relief | | d | 103N1010 |
| Run capacitor | 1/4 in. spade connect. | e | 117-7118 |
| 15 µF (optional) | 3/16 in. spade connect. | | 117-7120 |

| Test conditions | ASHRAE LBP | ASHRAE MBP | EN 12900/CECOMAF |
|--------------------|------------|------------|------------------|
| Condensing temp. | 130°F | 130°F | 131°F |
| Ambient temp. | 90°F | 95°F | 90°F |
| Suction gas temp | 90°F | 95°F | 90°F |
| Liquid temperature | 90°F | 115°F | 131°F |

| Mounting accessories | Code number |
|-------------------------------------|-------------|
| Bolt joint for one comp. Ø: 5/8 in. | 118-1917 |
| Bolt joint in quantities Ø: 5/8 in. | 118-1918 |
| Snap-on in quantities Ø: 5/8 in. | 118-1919 |

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