

TFS4.5FT Tropical Compressor R134a 220V 50Hz

General

| | |
|-----------------------|----------|
| Code number | 102G4433 |
| Approvals | UL984 |
| Compressors on pallet | 125 |

Application

| Application | LBP/MBP | | |
|--|---------|-----------|----|
| | Hz | 50 | 60 |
| Frequency | Hz | 50 | 60 |
| Evaporating temperature | °F | -31 to 23 | - |
| Voltage range | V | 176 - 242 | - |
| 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 | | S | S | - | - | - | - |
| 100°F | | S | S | - | - | - | - |
| 110°F | | S | S | - | - | - | - |
| Remarks on application: | | | | | | | |

Motor

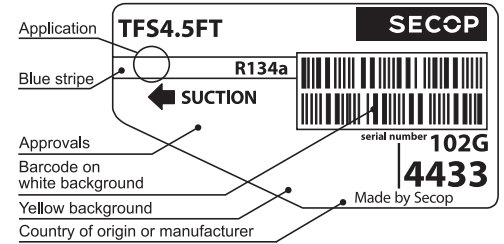
| Motor type | RSIR/CSIR | | |
|---|-----------|------|------|
| LRA (rated after 4 sec. UL984), HST LST | A | 8.0 | 10.3 |
| Cut in Current, HST LST | A | 8.0 | 10.8 |
| Resistance, main start winding (77°F) | Ω | 13.1 | 36.0 |

Design

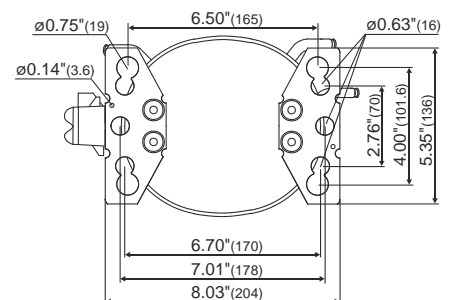
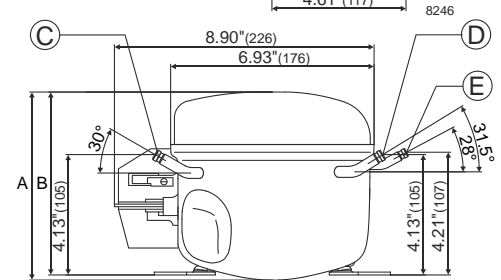
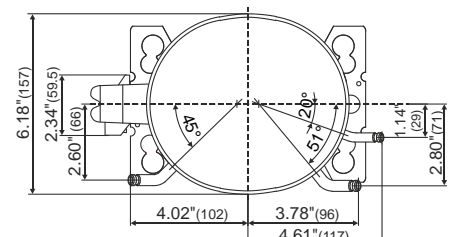
| | | |
|-------------------------------------|--------|-------------------|
| Displacement | cu.in | 0.29 |
| Oil quantity (type) | fl.oz. | 6.1 (polyolester) |
| Maximum refrigerant charge | oz. | 14.0 |
| Free gas volume in compressor | fl.oz. | 57.3 |
| Weight without electrical equipment | lbs. | 14.9 |

Dimensions

| Height | inch | A | 6.81 |
|----------------------|----------------------------|----|-------------------------------|
| | | B | 6.65 |
| | | B1 | - |
| | | B2 | - |
| Suction connector | location, I.D. in. angle | C | 0.252-0.259 30° |
| | material comment | | Cu-plated steel Rubber plug |
| Process connector | location, I.D. in. angle | D | 0.252-0.259 31.5° |
| | material comment | | Cu-plated steel Rubber plug |
| Discharge connector | location, I.D. in. angle | E | 0.202-0.205 28° |
| | material comment | | Cu-plated steel 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

220V, 50Hz, static cooling

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|------|------|------|------|------|----|----|----|----|----|----|----|
| Evap. temp. in °F | -49 | -40 | -30 | -20 | -13 | -10 | 0 | 10 | 14 | 20 | 30 | 40 | 41 | 45 | 50 | 59 | 68 |
| Capacity in BTU/h | | | 199 | 296 | 379 | 418 | 569 | 754 | 839 | 977 | | | | | | | |
| Power cons. in W | | | 88 | 99 | 107 | 111 | 125 | 140 | 146 | 156 | | | | | | | |
| Current cons. in A | | | 0.95 | 0.97 | 0.99 | 1.00 | 1.03 | 1.07 | 1.09 | 1.12 | | | | | | | |
| EER in BTU/Wh | | | 2.27 | 2.99 | 3.52 | 3.75 | 4.55 | 5.38 | 5.73 | 6.27 | | | | | | | |

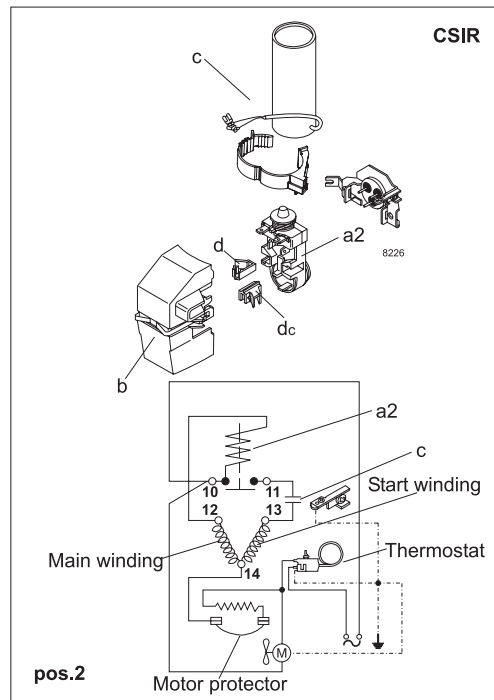
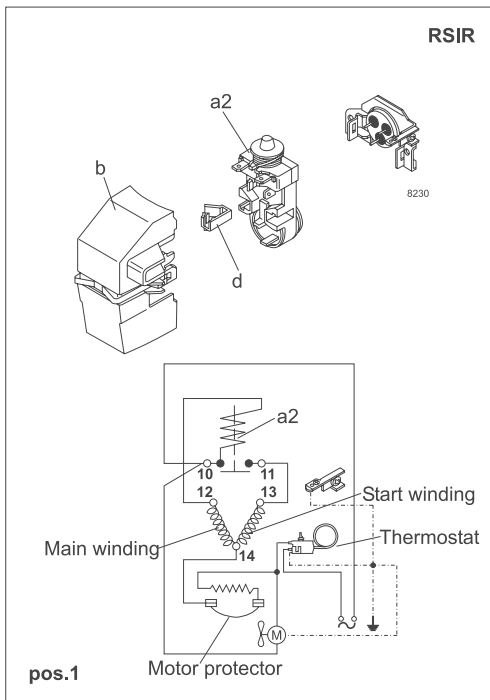
ASHRAE MBP

220V, 50Hz, static cooling

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|------|------|------|------|------|----|----|----|----|----|----|----|
| Evap. temp. in °F | -49 | -40 | -30 | -20 | -13 | -10 | 0 | 10 | 14 | 20 | 30 | 40 | 41 | 45 | 50 | 59 | 68 |
| Capacity in BTU/h | | | 178 | 265 | 338 | 373 | 508 | 673 | 748 | 871 | | | | | | | |
| Power cons. in W | | | 85 | 97 | 106 | 110 | 124 | 139 | 145 | 155 | | | | | | | |
| Current cons. in A | | | 0.95 | 0.97 | 0.99 | 1.00 | 1.03 | 1.07 | 1.09 | 1.12 | | | | | | | |
| EER in BTU/Wh | | | 2.09 | 2.73 | 3.20 | 3.40 | 4.10 | 4.84 | 5.15 | 5.63 | | | | | | | |

EN 12900 Household (CECOMAF) 220V, 50Hz, static cooling

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|------|------|------|------|------|----|----|----|----|----|----|----|
| Evap. temp. in °F | -49 | -40 | -30 | -20 | -13 | -10 | 0 | 10 | 14 | 20 | 30 | 40 | 41 | 45 | 50 | 59 | 68 |
| Capacity in W | | | 48 | 71 | 91 | 100 | 136 | 180 | 200 | 233 | | | | | | | |
| Power cons. in W | | | 88 | 99 | 107 | 111 | 125 | 140 | 146 | 156 | | | | | | | |
| Current cons. in A | | | 0.95 | 0.97 | 0.99 | 1.00 | 1.03 | 1.07 | 1.09 | 1.12 | | | | | | | |
| COP in W/W | | | 0.54 | 0.72 | 0.84 | 0.90 | 1.09 | 1.29 | 1.37 | 1.50 | | | | | | | |



| Accessories for | TFS4.5FT | Figure | Code number |
|------------------------|------------------------|---------|-------------|
| Starting relay | 1/4 in. spade connect. | a2 | 117U4103 |
| Protector 3/4 in. | Texas Instruments | (pos.1) | MRP77HL-6 |
| Starting relay | 1/4 in. spade connect. | a2 | 117U4147 |
| Protector 3/4 in. | Texas Instruments | (pos.2) | MRP77HL-6 |
| Cover | | b | 117U1023 |
| Start. capacitor 80 µF | 1/4 in. spade connect. | c | 117U5015 |
| Cord relief | | d | 117U0349 |
| Cord relief capacitor | | dc | 117U0349 |

| 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 | 95°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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