



Minimum Evaporating Temp. With:

- 10 K Suction Superheat
- Maximum Evaporating Temperature

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

| Cond °C | Cooling Capacity, kW | | | | | | | | | | | | | |
|------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 | 20.0 | 25.0 | 30.0 | 35.0 | 40.0 |
| 20.0 | 20.30 | 25.30 | 31.30 | 38.60 | 47.10 | 50.90 | | | | | | | | |
| 25.0 | 19.25 | 24.10 | 29.90 | 36.90 | 45.10 | 48.80 | 54.70 | | | | | | | |
| 30.0 | 18.20 | 22.90 | 28.50 | 35.20 | 43.10 | 46.60 | 52.30 | 57.50 | 63.00 | | | | | |
| 35.0 | 17.20 | 21.70 | 27.10 | 33.50 | 41.10 | 44.40 | 49.90 | 54.80 | 60.10 | | | | | |
| 40.0 | 16.15 | 20.50 | 25.70 | 31.80 | 39.00 | 42.20 | 47.40 | 52.20 | 57.20 | 68.50 | | | | |
| 45.0 | 15.10 | 19.25 | 24.20 | 30.00 | 36.90 | 40.00 | 44.90 | 49.40 | 54.30 | 65.00 | 77.20 | | | |
| 50.0 | | 18.00 | 22.70 | 28.20 | 34.80 | 37.70 | 42.40 | 46.60 | 51.20 | 61.40 | 73.10 | 86.30 | | |
| 55.0 | | 16.70 | 21.20 | 26.40 | 32.50 | 35.30 | 39.70 | 43.80 | 48.10 | 57.70 | 68.80 | 81.40 | 95.70 | |
| 60.0 | | | 19.55 | 24.50 | 30.20 | 32.80 | 37.00 | 40.80 | 44.90 | 54.00 | 64.50 | 76.40 | 90.00 | 105.50 |
| 65.0 | | | 17.85 | 22.40 | 27.80 | 30.30 | 34.20 | 37.70 | 41.60 | 50.10 | 60.00 | 71.20 | 84.10 | 98.60 |
| 70.0 | | | | 20.30 | 25.30 | 27.60 | 31.20 | 34.50 | 38.10 | 46.10 | 55.30 | 65.90 | 78.00 | 91.70 |
| 75.0 | | | | 18.10 | 22.70 | 24.80 | 28.20 | 31.20 | 34.50 | 41.90 | 50.50 | 60.40 | 71.70 | 84.50 |
| 80.0 | | | | | | | 24.90 | 27.70 | 30.70 | 37.50 | 45.50 | 54.60 | 65.10 | 77.10 |
| 85.0 | | | | | | | | | | 32.90 | 40.20 | 48.50 | 58.20 | 69.30 |

50 Hz

ZH100KCE-TWD

R134a

| Cond °C | Power, kW | | | | | | | | | | | | | |
|------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 | 20.0 | 25.0 | 30.0 | 35.0 | 40.0 |
| 20.0 | 5.62 | 5.66 | 5.74 | 5.88 | 6.09 | 6.19 | | | | | | | | |
| 25.0 | 6.34 | 6.39 | 6.47 | 6.58 | 6.75 | 6.84 | 7.00 | | | | | | | |
| 30.0 | 7.07 | 7.14 | 7.23 | 7.33 | 7.47 | 7.54 | 7.67 | 7.80 | 7.95 | | | | | |
| 35.0 | 7.82 | 7.93 | 8.03 | 8.13 | 8.25 | 8.31 | 8.42 | 8.52 | 8.65 | | | | | |
| 40.0 | 8.62 | 8.77 | 8.89 | 9.00 | 9.11 | 9.16 | 9.25 | 9.34 | 9.44 | 9.69 | | | | |
| 45.0 | 9.48 | 9.68 | 9.83 | 9.95 | 10.05 | 10.10 | 10.20 | 10.25 | 10.35 | 10.55 | 10.80 | | | |
| 50.0 | | 10.65 | 10.85 | 11.00 | 11.15 | 11.20 | 11.25 | 11.30 | 11.40 | 11.55 | 11.75 | 12.05 | | |
| 55.0 | | 11.75 | 12.00 | 12.20 | 12.35 | 12.40 | 12.45 | 12.50 | 12.60 | 12.70 | 12.85 | 13.10 | 13.40 | |
| 60.0 | | | 13.25 | 13.50 | 13.70 | 13.75 | 13.80 | 13.85 | 13.95 | 14.05 | 14.15 | 14.35 | 14.55 | 14.85 |
| 65.0 | | | 14.70 | 14.95 | 15.20 | 15.25 | 15.35 | 15.40 | 15.45 | 15.55 | 15.65 | 15.75 | 15.95 | 16.15 |
| 70.0 | | | | 16.60 | 16.85 | 16.95 | 17.05 | 17.10 | 17.20 | 17.25 | 17.35 | 17.45 | 17.55 | 17.70 |
| 75.0 | | | | 18.40 | 18.75 | 18.85 | 18.95 | 19.05 | 19.10 | 19.20 | 19.30 | 19.35 | 19.40 | 19.50 |
| 80.0 | | | | | | | 21.10 | 21.20 | 21.30 | 21.40 | 21.50 | 21.50 | 21.50 | 21.60 |
| 85.0 | | | | | | | | | | 23.80 | 23.90 | 23.90 | 23.90 | 23.90 |

| Cond °C | Current at 400 V, A | | | | | | | | | | | | | |
|------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 | 20.0 | 25.0 | 30.0 | 35.0 | 40.0 |
| 20.0 | 15.50 | 16.01 | 16.23 | 16.26 | 16.23 | 16.22 | | | | | | | | |
| 25.0 | 16.38 | 16.97 | 17.23 | 17.27 | 17.21 | 17.18 | 17.15 | | | | | | | |
| 30.0 | 17.08 | 17.76 | 18.08 | 18.14 | 18.07 | 18.02 | 17.97 | 17.94 | 17.96 | | | | | |
| 35.0 | 17.64 | 18.44 | 18.83 | 18.94 | 18.87 | 18.82 | 18.75 | 18.70 | 18.67 | | | | | |
| 40.0 | 18.14 | 19.07 | 19.56 | 19.72 | 19.69 | 19.64 | 19.55 | 19.49 | 19.44 | 19.46 | | | | |
| 45.0 | 18.64 | 19.71 | 20.31 | 20.56 | 20.57 | 20.53 | 20.45 | 20.37 | 20.31 | 20.27 | 20.44 | | | |
| 50.0 | | 20.43 | 21.17 | 21.52 | 21.58 | 21.56 | 21.49 | 21.42 | 21.35 | 21.27 | 21.37 | 21.76 | | |
| 55.0 | | 21.29 | 22.18 | 22.64 | 22.80 | 22.79 | 22.75 | 22.69 | 22.62 | 22.52 | 22.56 | 22.86 | 23.53 | |
| 60.0 | | | 23.41 | 24.01 | 24.26 | 24.29 | 24.28 | 24.24 | 24.19 | 24.08 | 24.09 | 24.31 | 24.88 | 25.89 |
| 65.0 | | | 24.93 | 25.68 | 26.05 | 26.12 | 26.16 | 26.14 | 26.11 | 26.02 | 26.01 | 26.18 | 26.65 | 27.54 |
| 70.0 | | | | 27.72 | 28.22 | 28.34 | 28.43 | 28.46 | 28.45 | 28.40 | 28.38 | 28.52 | 28.92 | 29.71 |
| 75.0 | | | | 30.18 | 30.84 | 31.01 | 31.17 | 31.24 | 31.28 | 31.27 | 31.28 | 31.40 | 31.75 | 32.45 |
| 80.0 | | | | | | | 34.43 | 34.56 | 34.64 | 34.71 | 34.75 | 34.87 | 35.20 | 35.83 |
| 85.0 | | | | | | | | | | 38.78 | 38.87 | 39.02 | 39.32 | 39.91 |

50 Hz

ZH100KCE-TWD

R134a

| Cond °C | Suction Mass Flow, g/s | | | | | | | | | | | | | |
|------------|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 | 20.0 | 25.0 | 30.0 | 35.0 | 40.0 |
| 20.0 | 119.50 | 146.00 | 177.50 | 215.00 | 258.00 | 277.00 | | | | | | | | |
| 25.0 | 118.00 | 145.00 | 176.50 | 214.00 | 257.00 | 276.00 | 306.00 | | | | | | | |
| 30.0 | 117.00 | 144.00 | 176.00 | 213.00 | 256.00 | 275.00 | 305.00 | 332.00 | 361.00 | | | | | |
| 35.0 | 116.00 | 143.50 | 175.00 | 212.00 | 255.00 | 274.00 | 304.00 | 331.00 | 360.00 | | | | | |
| 40.0 | 115.00 | 142.50 | 174.50 | 211.00 | 254.00 | 273.00 | 303.00 | 330.00 | 358.00 | 421.00 | | | | |
| 45.0 | 113.50 | 141.50 | 173.50 | 210.00 | 253.00 | 272.00 | 301.00 | 328.00 | 356.00 | 419.00 | 488.00 | | | |
| 50.0 | | 140.00 | 172.00 | 209.00 | 251.00 | 270.00 | 300.00 | 326.00 | 355.00 | 416.00 | 486.00 | 563.00 | | |
| 55.0 | | 138.50 | 170.50 | 207.00 | 250.00 | 268.00 | 298.00 | 324.00 | 352.00 | 414.00 | 483.00 | 560.00 | 646.00 | |
| 60.0 | | | 168.50 | 205.00 | 247.00 | 266.00 | 295.00 | 321.00 | 349.00 | 410.00 | 479.00 | 556.00 | 642.00 | 737.00 |
| 65.0 | | | 166.00 | 202.00 | 244.00 | 262.00 | 292.00 | 318.00 | 346.00 | 407.00 | 475.00 | 552.00 | 638.00 | 732.00 |
| 70.0 | | | | 199.00 | 240.00 | 259.00 | 288.00 | 314.00 | 341.00 | 402.00 | 470.00 | 547.00 | 632.00 | 727.00 |
| 75.0 | | | | 194.00 | 235.00 | 254.00 | 282.00 | 308.00 | 336.00 | 396.00 | 464.00 | 541.00 | 627.00 | 722.00 |
| 80.0 | | | | | | | 276.00 | 302.00 | 329.00 | 390.00 | 458.00 | 534.00 | 620.00 | 716.00 |
| 85.0 | | | | | | | | | | 382.00 | 450.00 | 527.00 | 613.00 | 710.00 |

COMPRESSOR MECHANICAL AND PHYSICAL DATA

| | |
|--|--|
| Displacement @ 50 Hz, m³/h | 56.6 |
| Length/Width, mm | 432/376 |
| Height, mm | 717 |
| Net Weight, kg | 140 |
| Gross Weight, kg | 168 |
| Rotalock Suction, inch | 2 1/4 x 12 UN |
| Rotalock Discharge, inch | 1 3/4 x 12 UN |
| Stub Suction, inch | 1 5/8 ID |
| Stub Discharge, inch | 1 3/8 ID |
| Oil Quantity, l | 4.7 |
| Oil type (original charge) | POE RL32-3MAF |
| Oil type (approved oils) | POE RL32-3MAF, POE MOBIL EAL Arctic 22 CC |
| Base mounting (hole dia), mm | 266.7 x 266.7 (22.6) |
| Sound Pressure @ 1m (HT), dBA | 72 |
| Sound Power (HT), dBA | 83 |
| Sound Conditions (HT, Temperatures: Evap./Cond./Suction at freq./speed) | 7 / 54 / 18 °C at 50 Hz |
| PED Category | 2 |
| Max. Internal Free Volume, l | 26.9 |
| High Side PS gauge, bar | 32 |
| Low Side PS gauge, bar | 20 |
| Low Side TS Max., °C | 52 |
| Low Side TS Min., °C | -35 |
| Refrigerant's GWP | 1430 |
| Refrigerant's classification | A1 |

COMPRESSOR ELECTRICAL DATA (380-420 V / 3~ / 50 Hz)

| | |
|------------------------------|----------------|
| Maximum Operating Current, A | 42.9 |
| Locked Rotor Current, A | 225 |
| Winding Resistance, ohm | 0.63 |
| Default Enclosure Class | IP 54 (IEC 34) |

ACCESSORIES INCLUDED

| | |
|----------------------------------|--------------------------------|
| Mounting Grommets | Rubber Grommet For Single |
| Oil Service Valve | Schraeder Valve |
| Check Valve | Discharge Low Leak Check Valve |
| Discharge Temperature Protection | Internal Thermistor |
| Discharge Temperature Protection | PTC in Scroll Discharge Port |
| Enclosure Class | IP 54 |
| Motor Protection Device | INT69SC2 |
| Mounting Grommets | Standard |
| Oil Charge | |

ACCESSORIES OPTIONAL

| | |
|-------------------|------------------------------|
| Adapter Kit | R1"3/4 - B1"3/8 For TPTL for |
| Crankcase Heater | Parallel Operation |
| Mounting Grommets | 82 W External |
| | Rubber Grommet For Parallel |
| | Operation |

MOTOR OPTIONS

| Motor Code | Power Supply | Nominal Voltage, V | Start Connection | DOL Connection | Amps Factor |
|-------------------|------------------------|---------------------------|-------------------------|-----------------------|--------------------|
| TWD | 380-420 V / 3~ / 50 Hz | 400 | | Y | 1.00 |
| TWC | 200 V / 3~ / 50 Hz | 200 | | Y | 2.09 |
| TWD | 460 V / 3~ / 60 Hz | 460 | | Y | 1.04 |
| TWC | 208-230 V / 3~ / 60 Hz | 230 | | Y | 2.09 |
| TW7 | 380 V / 3~ / 60 Hz | 380 | | Y | 1.26 |