



| | |
|---|---|
| Minimum Evaporating Temp. With: | |
| — 10 K Suction Superheat | — 20 K Suction Superheat |
| — 35 °C Suction Gas Return | — 5 K Suction Superheat Wet Injection OEM envelope |
| — Maximum Evaporating Temperature | |

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

| Cond °C | Cooling Capacity, kW | | | | | | | | | | | | | |
|------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 | 20.0 | 25.0 |
| 10.0 | 12.10 | 14.65 | 17.65 | 21.10 | 24.90 | 29.20 | | | | | | | | |
| 15.0 | 12.00 | 14.70 | 17.75 | 21.20 | 25.10 | 29.50 | 34.30 | | | | | | | |
| 20.0 | 11.85 | 14.65 | 17.80 | 21.30 | 25.20 | 29.60 | 34.40 | 39.60 | | | | | | |
| 25.0 | 11.65 | 14.45 | 17.65 | 21.20 | 25.20 | 29.50 | 34.30 | 39.50 | 41.70 | 45.20 | | | | |
| 30.0 | 11.30 | 14.20 | 17.40 | 21.00 | 24.90 | 29.30 | 34.00 | 39.20 | 41.40 | 44.80 | 47.80 | 50.90 | | |
| 35.0 | 10.85 | 13.80 | 17.05 | 20.60 | 24.60 | 28.90 | 33.60 | 38.70 | 40.80 | 44.20 | 47.10 | 50.20 | 56.60 | |
| 40.0 | 10.35 | 13.30 | 16.60 | 20.20 | 24.10 | 28.30 | 33.00 | 38.00 | 40.10 | 43.40 | 46.30 | 49.30 | 55.60 | 62.30 |
| 45.0 | | 12.75 | 16.00 | 19.55 | 23.40 | 27.60 | 32.10 | 37.10 | 39.10 | 42.40 | 45.20 | 48.10 | 54.20 | 60.80 |
| 50.0 | | | 15.30 | 18.75 | 22.60 | 26.70 | 31.10 | 35.90 | 37.90 | 41.10 | 43.80 | 46.60 | 52.60 | 59.00 |
| 55.0 | | | | 17.90 | 21.60 | 25.60 | 30.00 | 34.60 | 36.60 | 39.60 | 42.30 | 45.00 | 50.70 | 56.90 |
| 60.0 | | | | | 20.50 | 24.40 | 28.60 | 33.10 | 34.90 | 37.90 | 40.40 | 43.10 | 48.60 | 54.50 |
| 65.0 | | | | | | 22.90 | 27.00 | 31.30 | 33.10 | 35.90 | 38.30 | 40.80 | | |
| 68.0 | | | | | | 22.10 | 26.00 | 30.20 | 31.90 | 34.70 | 37.00 | | | |

50 Hz

ZHI35K1P-TFD

R410A Dew Point

| Cond °C | Power, kW | | | | | | | | | | | | | |
|------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 | 20.0 | 25.0 |
| 10.0 | 4.42 | 4.37 | 4.29 | 4.16 | 3.96 | 3.66 | | | | | | | | |
| 15.0 | 5.15 | 5.10 | 5.05 | 4.96 | 4.81 | 4.58 | 4.24 | | | | | | | |
| 20.0 | 5.83 | 5.79 | 5.75 | 5.69 | 5.59 | 5.43 | 5.17 | 4.79 | | | | | | |
| 25.0 | 6.50 | 6.46 | 6.43 | 6.40 | 6.35 | 6.24 | 6.05 | 5.76 | 5.61 | 5.34 | | | | |
| 30.0 | 7.21 | 7.16 | 7.14 | 7.13 | 7.11 | 7.05 | 6.93 | 6.72 | 6.60 | 6.40 | 6.18 | 5.93 | | |
| 35.0 | 8.00 | 7.93 | 7.91 | 7.92 | 7.93 | 7.92 | 7.86 | 7.72 | 7.64 | 7.48 | 7.32 | 7.13 | 6.62 | |
| 40.0 | 8.90 | 8.82 | 8.79 | 8.81 | 8.85 | 8.88 | 8.87 | 8.80 | 8.75 | 8.65 | 8.53 | 8.39 | 7.99 | 7.44 |
| 45.0 | | 9.86 | 9.82 | 9.85 | 9.90 | 9.96 | 10.00 | 10.00 | 9.98 | 9.93 | 9.85 | 9.76 | 9.47 | 9.04 |
| 50.0 | | | 11.05 | 11.05 | 11.15 | 11.20 | 11.30 | 11.35 | 11.35 | 11.35 | 11.35 | 11.25 | 11.10 | 10.80 |
| 55.0 | | | | 12.50 | 12.60 | 12.70 | 12.85 | 12.95 | 12.95 | 13.00 | 13.00 | 13.00 | 12.90 | 12.70 |
| 60.0 | | | | | 14.35 | 14.45 | 14.60 | 14.75 | 14.80 | 14.85 | 14.95 | 14.95 | 14.95 | 14.85 |
| 65.0 | | | | | | 16.55 | 16.70 | 16.90 | 16.95 | 17.10 | 17.15 | 17.20 | | |
| 68.0 | | | | | | 17.80 | 18.00 | 18.20 | 18.25 | 18.40 | 18.45 | | | |

| Cond °C | Current at 400 V, A | | | | | | | | | | | | | |
|------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 | 20.0 | 25.0 |
| 10.0 | 13.96 | 13.71 | 13.40 | 13.00 | 12.51 | 11.90 | | | | | | | | |
| 15.0 | 16.55 | 16.38 | 16.16 | 15.88 | 15.50 | 15.03 | 14.43 | | | | | | | |
| 20.0 | 18.40 | 18.30 | 18.16 | 17.97 | 17.71 | 17.36 | 16.90 | 16.31 | | | | | | |
| 25.0 | 19.67 | 19.63 | 19.56 | 19.45 | 19.28 | 19.04 | 18.71 | 18.27 | 18.06 | 17.71 | | | | |
| 30.0 | 20.54 | 20.54 | 20.53 | 20.49 | 20.41 | 20.26 | 20.04 | 19.73 | 19.58 | 19.31 | 19.05 | 18.76 | | |
| 35.0 | 21.17 | 21.20 | 21.24 | 21.25 | 21.24 | 21.18 | 21.06 | 20.86 | 20.76 | 20.57 | 20.38 | 20.16 | 19.62 | |
| 40.0 | 21.75 | 21.80 | 21.86 | 21.92 | 21.97 | 21.98 | 21.94 | 21.84 | 21.78 | 21.66 | 21.53 | 21.38 | 20.99 | 20.46 |
| 45.0 | | 22.47 | 22.55 | 22.64 | 22.73 | 22.80 | 22.83 | 22.82 | 22.79 | 22.73 | 22.66 | 22.57 | 22.31 | 21.93 |
| 50.0 | | | 23.51 | 23.60 | 23.71 | 23.83 | 23.92 | 23.97 | 23.98 | 23.97 | 23.95 | 23.91 | 23.76 | 23.53 |
| 55.0 | | | | 24.99 | 25.12 | 25.27 | 25.40 | 25.51 | 25.54 | 25.58 | 25.59 | 25.59 | 25.54 | 25.41 |
| 60.0 | | | | | 27.12 | 27.27 | 27.43 | 27.57 | 27.63 | 27.70 | 27.77 | 27.81 | 27.83 | 27.79 |
| 65.0 | | | | | | 30.10 | 30.26 | 30.42 | 30.49 | 30.61 | 30.68 | 30.73 | | |
| 68.0 | | | | | | 31.98 | 32.14 | 32.30 | 32.36 | 32.49 | 32.56 | | | |

| Cond °C | Suction Mass Flow, g/s | | | | | | | | | | | | | |
|------------|------------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 | 20.0 | 25.0 |
| 10.0 | 52.60 | 65.30 | 80.50 | 98.40 | 119.50 | 144.00 | | | | | | | | |
| 15.0 | 52.40 | 65.60 | 81.10 | 99.20 | 120.50 | 145.00 | 173.00 | | | | | | | |
| 20.0 | 51.90 | 65.40 | 81.20 | 99.60 | 121.00 | 145.50 | 173.50 | 206.00 | | | | | | |
| 25.0 | 51.10 | 65.00 | 81.00 | 99.60 | 121.00 | 145.50 | 173.00 | 205.00 | 219.00 | 242.00 | | | | |
| 30.0 | 50.00 | 64.10 | 80.40 | 99.10 | 120.50 | 145.00 | 172.50 | 204.00 | 218.00 | 240.00 | 260.00 | 281.00 | | |
| 35.0 | 48.50 | 62.90 | 79.40 | 98.20 | 119.50 | 144.00 | 171.50 | 203.00 | 216.00 | 238.00 | 258.00 | 278.00 | 324.00 | |
| 40.0 | 46.80 | 61.40 | 78.00 | 96.90 | 118.50 | 142.50 | 170.00 | 201.00 | 214.00 | 236.00 | 255.00 | 275.00 | 320.00 | 372.00 |
| 45.0 | | 59.50 | 76.30 | 95.20 | 116.50 | 140.50 | 168.00 | 198.50 | 212.00 | 233.00 | 252.00 | 272.00 | 316.00 | 367.00 |
| 50.0 | | | 74.10 | 93.10 | 114.50 | 138.50 | 165.50 | 195.50 | 209.00 | 230.00 | 248.00 | 268.00 | 312.00 | 361.00 |
| 55.0 | | | | 90.50 | 111.50 | 135.50 | 162.50 | 192.50 | 205.00 | 226.00 | 245.00 | 264.00 | 307.00 | 356.00 |
| 60.0 | | | | | 108.50 | 132.50 | 159.00 | 188.50 | 201.00 | 222.00 | 240.00 | 260.00 | 302.00 | 350.00 |
| 65.0 | | | | | | 128.50 | 154.50 | 184.00 | 197.00 | 217.00 | 235.00 | 254.00 | | |
| 68.0 | | | | | | | 126.50 | 152.50 | 181.50 | 194.50 | 215.00 | 233.00 | | |

COMPRESSOR MECHANICAL AND PHYSICAL DATA

| | |
|---|-------------------------|
| Displacement @ 50 Hz, m ³ /h | 22.1 |
| Length/Width, mm | 280/284 |
| Height, mm | 568 |
| Net Weight, kg | 63 |
| Stub Suction, inch | 1 3/8 |
| Stub Discharge, inch | 7/8 |
| Stub Injection, inch | 5/8 |
| Oil Quantity, l | 3.38 |
| Oil type (original charge) | POE RL32-3MAF |
| Oil type (approved oils) | POE RL32-3MAF |
| Base mounting (hole dia), mm | 190 x 190 (19) |
| Sound Pressure @ 1m (HT), dBA | 67 |
| Sound Power (HT), dBA | 78 |
| Sound Conditions (HT, Temperatures: | -7 / 50 / 3 °C at 50 Hz |
| Evap./Cond./Suction at freq./speed) | |
| PED Category | 2 |
| Max. Internal Free Volume, l | 19.8 |
| High Side PS gauge, bar | 53 |
| Low Side PS gauge, bar | 29.5 |
| Low Side TS Max., °C | 50 |
| Low Side TS Min., °C | -35 |
| Refrigerant's GWP | 2088 |
| Refrigerant's classification | A1 |

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

| | |
|------------------------------|----------------|
| Maximum Operating Current, A | 32.5 |
| Locked Rotor Current, A | 174 |
| Winding Resistance, ohm | 0.83 |
| Default Enclosure Class | IP 54 (IEC 34) |

ACCESSORIES INCLUDED

| | |
|-----------------|-------|
| Oil Charge | |
| Enclosure Class | IP 54 |

ACCESSORIES OPTIONAL

| | |
|---------------------------|---------------|
| Discharge Temp Protection | |
| Crankcase Heater | 66 W External |

MOTOR OPTIONS

| Motor Code | Power Supply | Nominal Voltage, V | Start Connection | DOL Connection | Amps Factor |
|-------------------|------------------------|---------------------------|-------------------------|-----------------------|--------------------|
| TFD | 380-420 V / 3~ / 50 Hz | 400 | | Y | 1.00 |
| TWD | 380-420 V / 3~ / 50 Hz | 400 | | Y | 1.00 |
| TFD | 460 V / 3~ / 60 Hz | 460 | | Y | 1.04 |
| TWD | 460 V / 3~ / 60 Hz | 460 | | Y | 1.04 |