



Minimum Evaporating Temp. With:

- 10 K Suction Superheat
- 5 K Suction Superheat
- Maximum Evaporating Temperature

Suction Return Temperature 18.3°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

| Cond<br>°C | Cooling Capacity, kW |       |       |       |       |       |      |     |     |     |       |       |      |      |      |  |
|------------|----------------------|-------|-------|-------|-------|-------|------|-----|-----|-----|-------|-------|------|------|------|--|
|            | -35.0                | -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       |                      |       |       |       |       |       |      |     |     |     |       |       |      |      |      |  |
| 15.0       |                      |       |       |       |       |       |      |     |     |     |       |       |      |      |      |  |
| 20.0       |                      |       |       |       |       |       |      |     |     |     | 46.30 |       |      |      |      |  |
| 25.0       |                      |       |       |       |       |       |      |     |     |     | 44.50 | 48.30 |      |      |      |  |
| 30.0       |                      |       |       |       |       |       |      |     |     |     | 42.50 | 46.10 |      |      |      |  |
| 35.0       |                      |       |       |       |       |       |      |     |     |     | 40.30 | 43.80 |      |      |      |  |
| 40.0       |                      |       |       |       |       |       |      |     |     |     | 38.10 | 41.30 |      |      |      |  |
| 45.0       |                      |       |       |       |       |       |      |     |     |     | 35.70 | 38.70 |      |      |      |  |
| 50.0       |                      |       |       |       |       |       |      |     |     |     | 33.10 | 35.90 |      |      |      |  |
| 55.0       |                      |       |       |       |       |       |      |     |     |     | 30.50 | 33.10 |      |      |      |  |
| 60.0       |                      |       |       |       |       |       |      |     |     |     | 27.70 | 30.10 |      |      |      |  |
| 65.0       |                      |       |       |       |       |       |      |     |     |     | 24.80 | 26.90 |      |      |      |  |
| 70.0       |                      |       |       |       |       |       |      |     |     |     | 21.80 | 23.70 |      |      |      |  |

50 Hz

YH28K1E-TFD

R454C Dew Point

| Cond<br>°C | Power, kW |       |       |       |       |       |      |     |     |     |       |       |      |      |      |
|------------|-----------|-------|-------|-------|-------|-------|------|-----|-----|-----|-------|-------|------|------|------|
|            | -35.0     | -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       |           |       |       |       |       |       |      |     |     |     |       |       |      |      |      |
| 15.0       |           |       |       |       |       |       |      |     |     |     |       |       |      |      |      |
| 20.0       |           |       |       |       |       |       |      |     |     |     | 5.66  |       |      |      |      |
| 25.0       |           |       |       |       |       |       |      |     |     |     | 6.16  | 6.23  |      |      |      |
| 30.0       |           |       |       |       |       |       |      |     |     |     | 6.71  | 6.78  |      |      |      |
| 35.0       |           |       |       |       |       |       |      |     |     |     | 7.33  | 7.40  |      |      |      |
| 40.0       |           |       |       |       |       |       |      |     |     |     | 8.02  | 8.10  |      |      |      |
| 45.0       |           |       |       |       |       |       |      |     |     |     | 8.78  | 8.88  |      |      |      |
| 50.0       |           |       |       |       |       |       |      |     |     |     | 9.64  | 9.74  |      |      |      |
| 55.0       |           |       |       |       |       |       |      |     |     |     | 10.60 | 10.70 |      |      |      |
| 60.0       |           |       |       |       |       |       |      |     |     |     | 11.65 | 11.75 |      |      |      |
| 65.0       |           |       |       |       |       |       |      |     |     |     | 12.80 | 12.95 |      |      |      |
| 70.0       |           |       |       |       |       |       |      |     |     |     | 14.10 | 14.25 |      |      |      |

| Cond<br>°C | Current at 400 V, A |       |       |       |       |       |      |     |     |     |       |       |      |      |      |
|------------|---------------------|-------|-------|-------|-------|-------|------|-----|-----|-----|-------|-------|------|------|------|
|            | -35.0               | -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       |                     |       |       |       |       |       |      |     |     |     |       |       |      |      |      |
| 15.0       |                     |       |       |       |       |       |      |     |     |     |       |       |      |      |      |
| 20.0       |                     |       |       |       |       |       |      |     |     |     | 11.77 |       |      |      |      |
| 25.0       |                     |       |       |       |       |       |      |     |     |     | 12.32 | 12.40 |      |      |      |
| 30.0       |                     |       |       |       |       |       |      |     |     |     | 12.96 | 13.05 |      |      |      |
| 35.0       |                     |       |       |       |       |       |      |     |     |     | 13.71 | 13.81 |      |      |      |
| 40.0       |                     |       |       |       |       |       |      |     |     |     | 14.58 | 14.69 |      |      |      |
| 45.0       |                     |       |       |       |       |       |      |     |     |     | 15.58 | 15.70 |      |      |      |
| 50.0       |                     |       |       |       |       |       |      |     |     |     | 16.72 | 16.86 |      |      |      |
| 55.0       |                     |       |       |       |       |       |      |     |     |     | 18.01 | 18.17 |      |      |      |
| 60.0       |                     |       |       |       |       |       |      |     |     |     | 19.48 | 19.66 |      |      |      |
| 65.0       |                     |       |       |       |       |       |      |     |     |     | 21.13 | 21.34 |      |      |      |
| 70.0       |                     |       |       |       |       |       |      |     |     |     | 22.97 | 23.22 |      |      |      |

| Cond<br>°C | Suction Mass Flow, g/s |       |       |       |       |       |      |     |     |     |        |        |      |      |      |  |
|------------|------------------------|-------|-------|-------|-------|-------|------|-----|-----|-----|--------|--------|------|------|------|--|
|            | -35.0                  | -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       |                        |       |       |       |       |       |      |     |     |     |        |        |      |      |      |  |
| 15.0       |                        |       |       |       |       |       |      |     |     |     |        |        |      |      |      |  |
| 20.0       |                        |       |       |       |       |       |      |     |     |     | 250.00 |        |      |      |      |  |
| 25.0       |                        |       |       |       |       |       |      |     |     |     | 250.00 | 274.00 |      |      |      |  |
| 30.0       |                        |       |       |       |       |       |      |     |     |     | 250.00 | 273.00 |      |      |      |  |
| 35.0       |                        |       |       |       |       |       |      |     |     |     | 249.00 | 272.00 |      |      |      |  |
| 40.0       |                        |       |       |       |       |       |      |     |     |     | 247.00 | 271.00 |      |      |      |  |
| 45.0       |                        |       |       |       |       |       |      |     |     |     | 245.00 | 268.00 |      |      |      |  |
| 50.0       |                        |       |       |       |       |       |      |     |     |     | 242.00 | 265.00 |      |      |      |  |
| 55.0       |                        |       |       |       |       |       |      |     |     |     | 238.00 | 261.00 |      |      |      |  |
| 60.0       |                        |       |       |       |       |       |      |     |     |     | 234.00 | 256.00 |      |      |      |  |
| 65.0       |                        |       |       |       |       |       |      |     |     |     | 229.00 | 251.00 |      |      |      |  |
| 70.0       |                        |       |       |       |       |       |      |     |     |     | 223.00 | 245.00 |      |      |      |  |

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

|                                         |                         |
|-----------------------------------------|-------------------------|
| Displacement @ 50 Hz, m <sup>3</sup> /h | 35.4                    |
| Length/Width, mm                        | 284/289                 |
| Height, mm                              | 551                     |
| Net Weight, kg                          | 68.2                    |
| Stub Suction, inch                      | 1 3/8                   |
| Stub Discharge, inch                    | 7/8                     |
| Oil Quantity, l                         | 3.58                    |
| Oil type (original charge)              | POE RL32-3MAF           |
| Base mounting (hole dia), mm            | 190 x 190 (0)           |
| Sound Pressure @ 1m (HT), dBA           | 68                      |
| Sound Power (HT), dBA                   | 79                      |
| Sound Power with Sound Shell (HT), dBA  | 69                      |
| Sound Conditions (HT, Temperatures:     | -7 / 50 / 3 °C at 50 Hz |
| Evap./Cond./Suction at freq./speed)     |                         |
| PED Category                            | 3                       |
| Max. Low Side Internal Free Volume, l   | 12.6                    |
| Max. High Side Internal Free Volume, l  | 1.5                     |
| Max. Internal Free Volume, l            | 14.1                    |
| High Side PS gauge, bar                 | 50                      |
| Low Side PS gauge, bar                  | 30.4                    |
| Low Side TS Max., °C                    | 55                      |
| Low Side TS Min., °C                    | -35                     |
| High Side TS Max., °C                   | 150                     |
| High Side TS Min., °C                   | -35                     |
| Refrigerant's GWP                       | 148                     |
| Refrigerant's classification            | A2L                     |

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

|                              |                |
|------------------------------|----------------|
| Maximum Operating Current, A | 29             |
| Locked Rotor Current, A      | 147            |
| Winding Resistance, ohm      | 1.04           |
| Default Enclosure Class      | IP 54 (IEC 34) |

**ACCESSORIES INCLUDED****ACCESSORIES OPTIONAL****MOTOR OPTIONS**

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