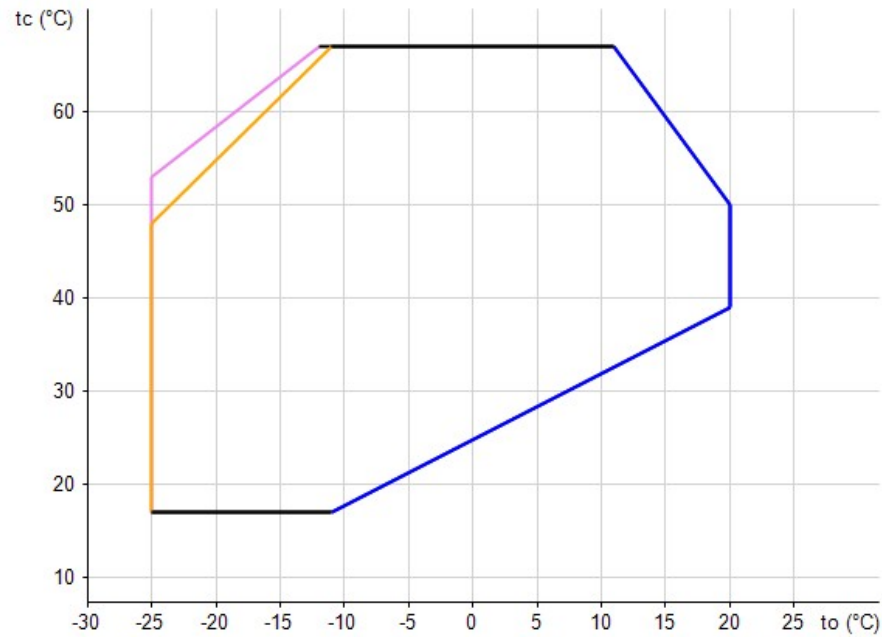


50 Hz

YH16K1E-TFD

R454C Dew Point



Minimum Evaporating Temp. With:

- 10 K Suction Superheat    — 20 °C Suction Gas Return
- Maximum Evaporating Temperature

Suction Superheat 11.1K

Liquid Subcooling 8.3K

Evaporating Temperature, °C

| Cond<br>°C | Cooling Capacity, kW |       |       |       |       |       |       |       |       |       |       |       |
|------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | -25.0                | -20.0 | -15.0 | -10.0 | -5.0  | 0.0   | 5.0   | 7.0   | 10.0  | 12.5  | 15.0  | 20.0  |
| 17.0       | 8.03                 | 10.05 | 12.40 |       |       |       |       |       |       |       |       |       |
| 20.0       | 7.79                 | 9.76  | 12.10 | 14.90 |       |       |       |       |       |       |       |       |
| 25.0       | 7.40                 | 9.31  | 11.55 | 14.25 | 17.40 | 21.10 |       |       |       |       |       |       |
| 30.0       | 7.02                 | 8.85  | 11.05 | 13.60 | 16.65 | 20.20 | 24.20 | 26.00 |       |       |       |       |
| 35.0       | 6.63                 | 8.39  | 10.45 | 12.95 | 15.80 | 19.20 | 23.10 | 24.80 | 27.60 | 30.10 |       |       |
| 40.0       | 6.24                 | 7.92  | 9.90  | 12.25 | 15.00 | 18.20 | 21.90 | 23.60 | 26.20 | 28.60 | 31.20 | 36.80 |
| 45.0       | 5.84                 | 7.44  | 9.32  | 11.55 | 14.15 | 17.20 | 20.70 | 22.30 | 24.80 | 27.10 | 29.60 | 34.90 |
| 50.0       | 5.44                 | 6.95  | 8.72  | 10.80 | 13.25 | 16.15 | 19.50 | 21.00 | 23.40 | 25.60 | 27.90 | 33.00 |
| 55.0       |                      | 6.44  | 8.10  | 10.05 | 12.35 | 15.05 | 18.25 | 19.65 | 21.90 | 24.00 | 26.20 |       |
| 60.0       |                      |       | 7.46  | 9.27  | 11.40 | 13.95 | 16.90 | 18.25 | 20.40 | 22.30 |       |       |
| 65.0       |                      |       |       | 8.47  | 10.45 | 12.80 | 15.60 | 16.80 | 18.85 |       |       |       |
| 67.0       |                      |       |       | 8.14  | 10.05 | 12.35 | 15.05 | 16.25 | 18.20 |       |       |       |

50 Hz

YH16K1E-TFD

R454C Dew Point

| Cond<br>°C | Power, kW |       |       |       |      |      |      |      |      |      |      |      |
|------------|-----------|-------|-------|-------|------|------|------|------|------|------|------|------|
|            | -25.0     | -20.0 | -15.0 | -10.0 | -5.0 | 0.0  | 5.0  | 7.0  | 10.0 | 12.5 | 15.0 | 20.0 |
| 17.0       | 2.48      | 2.67  | 2.86  |       |      |      |      |      |      |      |      |      |
| 20.0       | 2.62      | 2.80  | 2.98  | 3.15  |      |      |      |      |      |      |      |      |
| 25.0       | 2.88      | 3.05  | 3.21  | 3.37  | 3.52 | 3.66 |      |      |      |      |      |      |
| 30.0       | 3.16      | 3.32  | 3.48  | 3.63  | 3.77 | 3.91 | 4.04 | 4.10 |      |      |      |      |
| 35.0       | 3.46      | 3.62  | 3.78  | 3.93  | 4.07 | 4.21 | 4.35 | 4.40 | 4.48 | 4.54 |      |      |
| 40.0       | 3.78      | 3.95  | 4.11  | 4.27  | 4.42 | 4.57 | 4.71 | 4.77 | 4.85 | 4.91 | 4.98 | 5.10 |
| 45.0       | 4.12      | 4.30  | 4.48  | 4.65  | 4.82 | 4.98 | 5.14 | 5.20 | 5.28 | 5.36 | 5.43 | 5.56 |
| 50.0       | 4.47      | 4.68  | 4.88  | 5.07  | 5.26 | 5.44 | 5.61 | 5.68 | 5.78 | 5.87 | 5.95 | 6.11 |
| 55.0       |           | 5.07  | 5.30  | 5.52  | 5.73 | 5.94 | 6.15 | 6.23 | 6.34 | 6.44 | 6.54 |      |
| 60.0       |           |       | 5.74  | 6.00  | 6.25 | 6.49 | 6.73 | 6.82 | 6.96 | 7.08 |      |      |
| 65.0       |           |       |       | 6.51  | 6.80 | 7.08 | 7.36 | 7.47 | 7.64 |      |      |      |
| 67.0       |           |       |       | 6.72  | 7.03 | 7.33 | 7.63 | 7.75 | 7.92 |      |      |      |

| Cond<br>°C | Current at 400 V, A |       |       |       |       |       |       |       |       |       |       |       |
|------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | -25.0               | -20.0 | -15.0 | -10.0 | -5.0  | 0.0   | 5.0   | 7.0   | 10.0  | 12.5  | 15.0  | 20.0  |
| 17.0       | 6.13                | 6.29  | 6.45  |       |       |       |       |       |       |       |       |       |
| 20.0       | 6.22                | 6.38  | 6.54  | 6.69  |       |       |       |       |       |       |       |       |
| 25.0       | 6.43                | 6.59  | 6.75  | 6.91  | 7.07  | 7.22  |       |       |       |       |       |       |
| 30.0       | 6.69                | 6.86  | 7.04  | 7.21  | 7.37  | 7.53  | 7.68  | 7.74  |       |       |       |       |
| 35.0       | 7.01                | 7.20  | 7.38  | 7.57  | 7.74  | 7.92  | 8.08  | 8.15  | 8.24  | 8.31  |       |       |
| 40.0       | 7.37                | 7.58  | 7.79  | 7.99  | 8.19  | 8.38  | 8.56  | 8.63  | 8.74  | 8.82  | 8.90  | 9.05  |
| 45.0       | 7.78                | 8.02  | 8.25  | 8.48  | 8.70  | 8.91  | 9.11  | 9.19  | 9.31  | 9.41  | 9.50  | 9.67  |
| 50.0       | 8.23                | 8.50  | 8.76  | 9.01  | 9.26  | 9.50  | 9.74  | 9.83  | 9.96  | 10.07 | 10.17 | 10.37 |
| 55.0       |                     | 9.01  | 9.31  | 9.60  | 9.88  | 10.16 | 10.42 | 10.53 | 10.68 | 10.80 | 10.92 |       |
| 60.0       |                     |       | 9.90  | 10.23 | 10.55 | 10.86 | 11.16 | 11.28 | 11.46 | 11.60 |       |       |
| 65.0       |                     |       |       | 10.89 | 11.26 | 11.62 | 11.96 | 12.10 | 12.30 |       |       |       |
| 67.0       |                     |       |       | 11.17 | 11.55 | 11.93 | 12.29 | 12.44 | 12.65 |       |       |       |

50 Hz

YH16K1E-TFD

R454C Dew Point

| Cond<br>°C | Suction Mass Flow, g/s |       |       |       |       |        |        |        |        |        |        |        |
|------------|------------------------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
|            | -25.0                  | -20.0 | -15.0 | -10.0 | -5.0  | 0.0    | 5.0    | 7.0    | 10.0   | 12.5   | 15.0   | 20.0   |
| 17.0       | 44.00                  | 54.00 | 65.80 |       |       |        |        |        |        |        |        |        |
| 20.0       | 43.80                  | 53.80 | 65.60 | 79.30 |       |        |        |        |        |        |        |        |
| 25.0       | 43.40                  | 53.50 | 65.30 | 79.00 | 94.80 | 113.00 |        |        |        |        |        |        |
| 30.0       | 43.00                  | 53.20 | 65.00 | 78.70 | 94.40 | 112.50 | 133.00 | 142.00 |        |        |        |        |
| 35.0       | 42.60                  | 52.80 | 64.60 | 78.30 | 94.00 | 112.00 | 132.50 | 141.50 | 155.50 | 168.00 |        |        |
| 40.0       | 42.20                  | 52.50 | 64.20 | 77.80 | 93.40 | 111.50 | 131.50 | 140.50 | 155.00 | 167.50 | 181.00 | 210.00 |
| 45.0       | 41.80                  | 52.10 | 63.80 | 77.20 | 92.70 | 110.50 | 131.00 | 139.50 | 154.00 | 166.50 | 179.50 | 209.00 |
| 50.0       | 41.40                  | 51.60 | 63.20 | 76.60 | 92.00 | 109.50 | 130.00 | 138.50 | 152.50 | 165.50 | 178.50 | 208.00 |
| 55.0       |                        | 51.10 | 62.60 | 75.90 | 91.10 | 108.50 | 128.50 | 137.50 | 151.50 | 164.00 | 177.50 |        |
| 60.0       |                        |       | 62.00 | 75.00 | 90.10 | 107.50 | 127.50 | 136.00 | 150.00 | 163.00 |        |        |
| 65.0       |                        |       |       | 74.10 | 89.00 | 106.50 | 126.00 | 135.00 | 149.00 |        |        |        |
| 67.0       |                        |       |       | 73.80 | 88.60 | 106.00 | 125.50 | 134.50 | 148.50 |        |        |        |

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

|                                        |                           |
|----------------------------------------|---------------------------|
| Displacement @ 50 Hz, m³/h             | 21.4                      |
| Length/Width, mm                       | 255/261                   |
| Height, mm                             | 442                       |
| Net Weight, kg                         | 43.5                      |
| Stub Suction, inch                     | 7/8                       |
| Stub Discharge, inch                   | 3.4                       |
| Oil Quantity, l                        | 1.89                      |
| 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 (MT), dBA          | 68                        |
| Sound Power (MT), dBA                  | 79                        |
| Sound Power with Sound Shell (MT), dBA | 70                        |
| Sound Conditions (MT, Temperatures:    | -10 / 45 / 20 °C at 50 Hz |
| Evap./Cond./Suction at freq./speed)    |                           |

|                                        |      |
|----------------------------------------|------|
| Max. Low Side Internal Free Volume, l  | 6.4  |
| Max. High Side Internal Free Volume, l | 0.6  |
| Max. Internal Free Volume, l           | 7.00 |
| High Side PS gauge, bar                | 38   |
| Low Side PS gauge, bar                 | 23.5 |
| Low Side TS Max., °C                   | 50   |
| 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 | 15.9           |
| Locked Rotor Current, A      | 102            |
| Winding Resistance, ohm      | 1.72           |
| 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               |