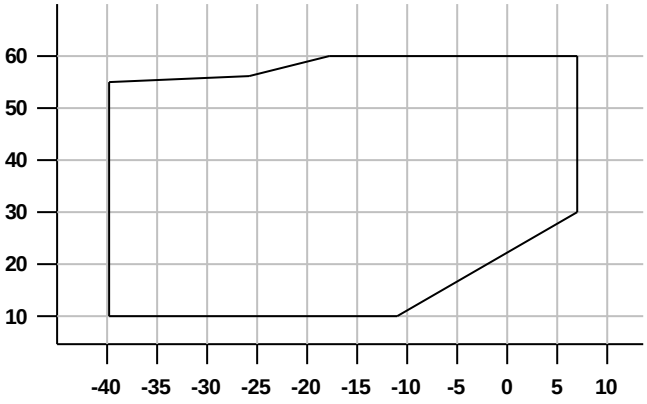
# 50Hz ZF40K4E-TWD R404A




**Minimum evaporating temp. with:**

——— **25°C Suction Gas Return + Liquid Injection**

Suction Return Temperature 20,0°C

## Evaporating Temperature °C

Liquid subcooling 0,0K

| Cond °C | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Capacity kW** | | | | | | | | | | |
| 10 | 9,36 | 11,95 | 15,00 | 18,60 | 22,80 | 27,80 | | | | | |
| 20 | 8,56 | 10,95 | 13,75 | 17,05 | 20,80 | 25,30 | 30,40 | 36,30 | | | |
| 30 | 7,74 | 9,93 | 12,45 | 15,35 | 18,70 | 22,60 | 27,20 | 32,40 | 38,30 | 45,10 | 48,10 |
| 35 | 7,30 | 9,37 | 11,75 | 14,45 | 17,60 | 21,20 | 25,40 | 30,30 | 35,90 | 42,30 | 45,10 |
| 40 | 6,82 | 8,78 | 10,95 | 13,50 | 16,40 | 19,75 | 23,70 | 28,20 | 33,40 | 39,30 | 41,90 |
| 45 | 6,31 | 8,13 | 10,15 | 12,45 | 15,15 | 18,20 | 21,80 | 26,00 | 30,80 | 36,30 | 38,70 |
| 50 | 5,74 | 7,43 | 9,29 | 11,40 | 13,80 | 16,60 | 19,85 | 23,70 | 28,10 | 33,10 | 35,40 |
| 55 | 5,11 | 6,67 | 8,35 | 10,25 | 12,40 | 14,90 | 17,80 | 21,20 | 25,20 | 29,90 | 31,90 |
| 60 | | | | | | 13,10 | 15,70 | 18,70 | 22,30 | 26,50 | 28,30 |
| | **Power Input kW** | | | | | | | | | | |
| | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 7 |
| 10 | 4,14 | 4,39 | 4,66 | 4,98 | 5,33 | 5,71 | | | | | |
| 20 | 4,94 | 5,22 | 5,52 | 5,84 | 6,19 | 6,56 | 6,96 | 7,39 | | | |
| 30 | 5,90 | 6,23 | 6,57 | 6,92 | 7,29 | 7,67 | 8,06 | 8,47 | 8,89 | 9,33 | 9,51 |
| 35 | 6,44 | 6,80 | 7,16 | 7,54 | 7,92 | 8,31 | 8,71 | 9,11 | 9,53 | 9,95 | 10,15 |
| 40 | 7,02 | 7,41 | 7,81 | 8,20 | 8,60 | 9,01 | 9,41 | 9,82 | 10,25 | 10,65 | 10,80 |
| 45 | 7,62 | 8,06 | 8,49 | 8,92 | 9,34 | 9,76 | 10,20 | 10,60 | 11,00 | 11,40 | 11,60 |
| 50 | 8,26 | 8,74 | 9,22 | 9,68 | 10,15 | 10,55 | 11,00 | 11,45 | 11,85 | 12,25 | 12,45 |
| 55 | 8,94 | 9,47 | 9,98 | 10,50 | 10,95 | 11,45 | 11,90 | 12,35 | 12,75 | 13,20 | 13,35 |
| 60 | | | | | | 12,35 | 12,85 | 13,30 | 13,75 | 14,15 | 14,30 |
| | **Current 400V, A** | | | | | | | | | | |
| | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 7 |
| 10 | 11,11 | 11,33 | 11,59 | 11,88 | 12,23 | 12,62 | | | | | |
| 20 | 11,84 | 12,12 | 12,43 | 12,77 | 13,14 | 13,55 | 13,99 | 14,48 | | | |
| 30 | 12,79 | 13,16 | 13,55 | 13,95 | 14,37 | 14,81 | 15,28 | 15,77 | 16,30 | 16,86 | 17,10 |
| 35 | 13,35 | 13,78 | 14,21 | 14,65 | 15,11 | 15,57 | 16,06 | 16,57 | 17,10 | 17,66 | 17,89 |
| 40 | 13,98 | 14,47 | 14,95 | 15,44 | 15,93 | 16,43 | 16,94 | 17,46 | 18,01 | 18,57 | 18,81 |
| 45 | 14,68 | 15,23 | 15,77 | 16,31 | 16,84 | 17,38 | 17,92 | 18,47 | 19,03 | 19,60 | 19,84 |
| 50 | 15,45 | 16,07 | 16,68 | 17,27 | 17,85 | 18,43 | 19,00 | 19,58 | 20,16 | 20,75 | 20,99 |
| 55 | 16,30 | 16,99 | 17,66 | 18,32 | 18,95 | 19,58 | 20,19 | 20,80 | 21,41 | 22,02 | 22,26 |
| 60 | | | | | | 20,83 | 21,49 | 22,14 | 22,78 | 23,42 | 23,67 |
| | **Mass Flow g/s** | | | | | | | | | | |
| | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 7 |
| 10 | 52,30 | 66,90 | 84,50 | 105,00 | 129,50 | 158,00 | | | | | |
| 20 | 52,10 | 66,90 | 84,50 | 105,00 | 129,00 | 157,00 | 191,00 | 230,00 | | | |
| 30 | 51,90 | 66,80 | 84,00 | 104,00 | 128,00 | 156,00 | 188,00 | 227,00 | 272,00 | 325,00 | 348,00 |
| 35 | 51,70 | 66,60 | 84,00 | 103,50 | 127,00 | 155,00 | 187,00 | 225,00 | 270,00 | 323,00 | 346,00 |
| 40 | 51,30 | 66,20 | 83,00 | 103,00 | 126,00 | 153,00 | 185,00 | 223,00 | 267,00 | 320,00 | 344,00 |
| 45 | 50,60 | 65,60 | 82,50 | 101,50 | 124,50 | 151,00 | 182,00 | 220,00 | 264,00 | 317,00 | 341,00 |
| 50 | 49,60 | 64,50 | 81,00 | 100,00 | 122,50 | 148,50 | 180,00 | 217,00 | 261,00 | 314,00 | 338,00 |
| 55 | 48,10 | 63,10 | 79,50 | 98,00 | 119,50 | 145,50 | 176,00 | 213,00 | 257,00 | 311,00 | 335,00 |
| 60 | | | | | | 142,00 | 172,00 | 209,00 | 253,00 | 308,00 | 333,00 |

## Copeland Scroll - Compressor - Refrigeration - Standard

***COMPRESSOR MECHANICAL AND PHYSICAL DATA***

| | |
|---|---|
| Displacement @ 50 Hz, cu.m/h | 35.6 |
| Length/Width, mm | 368/324 |
| Height, mm | 532 |
| Net Weight, kg | 103 |
| Gross Weight, kg | 110 |
| Rotalock Suction, inch | 1 3/4 |
| Rotalock Discharge, inch | 1 1/4 |
| Oil Quantity, l | 4.1 |
| Base mounting (hole dia), mm | 220 x 220 (8.5) |
| Sound Pressure @ 1m, dBA | 72 |
| Sound Power, dBA | 83 |
| Sound Power with Sound Shell, dBA | 73 |
| PED Category | 2 |
| High Side PS, bar(g) | 32 |
| Low Side PS, bar(g) | 22.6 |
| Internal Free Volume, l | 20.2 |

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

| | |
|---|---|
| Maximum Operating Current, A | 25.1 |
| Locked Rotor Current, A | 167 |
| Winding Resistance, ohm | 0.8 |
| Default Enclosure Class | IP 54 (IEC 34) |

***ACCESSORIES INCLUDED***

| | |
|---|---|
| Discharge Temperature Protection | Internal Thermistor |
| Mounting Grommets | Standard |

***ACCESSORIES OPTIONAL***

| | |
|---|---|
| Crankcase Heater | 70W External |
| Liquid Injection | Capillary Tube |
| Mounting Grommets | Hard Mounts for Paralleling |
| Oil Control System | ALCO Trax-Oil OM3 |
| Sound Attenuation | Sound Shell (10dBA) |
| Rotalock valves | suction and discharge |

***MOTOR OPTIONS***

| *Power Supply* | *Nominal Voltage* | *Motor Code* | *Start Connection* | *DOL Connection* | *Amps Factor* |
|---|---|---|---|---|---|
| 380-420 V/3~/50H | 400 | TWD | | Y | 1,00 |
| 200 V/3~/50Hz | 200 | TWC | | Y | 2,09 |
| 220-240 V/3~/50H | 220 | TWR | | Y | 1,80 |
| 380 V/3~/60Hz | 380 | TW7 | | Y | 1,26 |
| 208-230 V/3~/60H | 230 | TWC | | Y | 2,09 |
| 575 V/3~/60Hz | 575 | TWE | | Y | 0,80 |
| 460 V/3~/60Hz | 460 | TWD | | Y | 1,00 |