# Invotech Selection Software

| | |
|---|---|
| REFRIGERANT | R407C |

## Operation Conditions

| | |
|---|---|
| Evaporating Temperature(□): | 5.0 |
| Condensing Temperature(□): | 50.0 |
| Liquid subcooling: | 0.0 |
| Suction Superheat: | 10.0 |

**Required Capacity(Kw):**

| | |
|---|---|
| Compressor Selected: | YH140T1-100 |

| PERFORMANCE AT SPECIFIED OPERATING POINT | |
|---|---|
| Capacity (KW) | 12.2 |
| Power Input (KW) | 3.78 |
| COP | 3.23 |
| Current (A) | 6.95 |

| CPMPRESSOR MECHANICAL AND PHYSICAL DATA | |
|---|---|
| Length/Width/Height (mm) | 239/239/418 |
| Weight (kg) | 31 |
| Stub Suction (inch) | 7/8 |
| Stub Discharge (inch) | 1/2 |
| Base mounting (hole dia) | 190X190(8.5) |
| Oil type | POE |
| Initial charge of oil quantity (L) | 1.4 |
| Recharge of oil quantity (L) | 1.25 |
| High Side PS Max., (MPa) | 3.0 |
| Low Side PS Max., (MPa) | 2.0 |
| Displacement($m^3/h$) | 13.5 |

| COMPRESSOR ELECTRICAL DATA | |
|---|---|
| Electricity | 380V/50Hz/3P |
| Standard Conditions | 7.2/54.4/11.1/8.3 |
| Normal Power (HP) | 4.7 |
| Normal Capacity (□) | 13340 |
| Normal Power input(□) | 4130 |
| Normal COP(□/□) | 3.25 |
| Normal Current(□) | 8 |
| Locked Rotor Current(□) | 60 |
| Maximum operating current(□) | 11.1 |

Model: YH140T1-100 Refrigerant: R407C

Suction Superheat: 10.0 Liquid subcooling: 0.0

## Capacity(KW)

| Tc\Te | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 | 12.5 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 4.51 | 5.73 | 7.13 | 8.74 | 10.59 | 12.68 | 15.06 | 17.73 | 19.19 | |
| 30 | 4.26 | 5.45 | 6.82 | 8.39 | 10.19 | 12.23 | 14.54 | 17.15 | 18.57 | |
| 35 | 4.01 | 5.17 | 6.5 | 8.02 | 9.77 | 11.75 | 14 | 16.54 | 17.93 | |
| 40 | 3.76 | 4.88 | 6.17 | 7.64 | 9.33 | 11.25 | 13.43 | 15.89 | 17.24 | |
| 45 | | 4.59 | 5.83 | 7.24 | 8.87 | 10.72 | 12.83 | 15.21 | 16.52 | |
| 50 | | | 5.48 | 6.83 | 8.39 | 10.17 | 12.2 | 14.5 | 15.76 | |
| 55 | | | | 6.41 | 7.89 | 9.59 | 11.54 | 13.75 | 14.96 | |
| 60 | | | | | 7.37 | 8.99 | 10.84 | 12.96 | 14.12 | |
| 65 | | | | | | 8.36 | 10.12 | 12.13 | 13.24 | |

## Power Input(KW)

| Tc\Te | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 | 12.5 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 1.99 | 2.08 | 2.15 | 2.2 | 2.24 | 2.27 | 2.31 | 2.35 | 2.38 | |
| 30 | 2.24 | 2.33 | 2.4 | 2.45 | 2.48 | 2.52 | 2.55 | 2.59 | 2.62 | |
| 35 | 2.51 | 2.6 | 2.67 | 2.71 | 2.75 | 2.78 | 2.81 | 2.85 | 2.87 | |
| 40 | 2.82 | 2.91 | 2.97 | 3.01 | 3.04 | 3.07 | 3.09 | 3.13 | 3.16 | |
| 45 | | 3.26 | 3.31 | 3.35 | 3.37 | 3.39 | 3.42 | 3.45 | 3.47 | |
| 50 | | | 3.7 | 3.73 | 3.75 | 3.76 | 3.78 | 3.81 | 3.83 | |
| 55 | | | | 4.17 | 4.18 | 4.19 | 4.2 | 4.22 | 4.24 | |
| 60 | | | | | 4.68 | 4.68 | 4.68 | 4.7 | 4.71 | |
| 65 | | | | | | 5.24 | 5.23 | 5.24 | 5.25 | |

Model: YH140T1-100

Refrigerant: R407C

Suction Superheat: 10.0

Liquid subcoolling: 0.0

## Current(A)

| Tc\Te | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 | 12.5 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 4.65 | 4.77 | 4.85 | 4.91 | 4.96 | 4.99 | 5.04 | 5.09 | 5.13 | |
| 30 | 4.93 | 5.05 | 5.13 | 5.19 | 5.24 | 5.28 | 5.32 | 5.38 | 5.41 | |
| 35 | 5.25 | 5.37 | 5.46 | 5.52 | 5.56 | 5.6 | 5.64 | 5.69 | 5.73 | |
| 40 | 5.63 | 5.75 | 5.83 | 5.89 | 5.93 | 5.97 | 6.01 | 6.06 | 6.09 | |
| 45 | | 6.21 | 6.29 | 6.34 | 6.37 | 6.4 | 6.44 | 6.48 | 6.51 | |
| 50 | | | 6.82 | 6.87 | 6.9 | 6.92 | 6.95 | 6.99 | 7.01 | |
| 55 | | | | 7.5 | 7.52 | 7.53 | 7.55 | 7.58 | 7.6 | |
| 60 | | | | | 8.25 | 8.26 | 8.26 | 8.28 | 8.29 | |
| 65 | | | | | | 9.1 | 9.09 | 9.1 | 9.11 | |

## Mass Flow(Kg/h)

| Tc\Te | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 | 12.5 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 90.57 | 117.33 | 146.84 | 179.67 | 216.44 | 257.73 | 304.15 | 356.28 | 384.68 | |
| 30 | 88.61 | 115.48 | 145.1 | 178.08 | 215.01 | 256.48 | 303.09 | 355.44 | 383.96 | |
| 35 | 86.69 | 113.58 | 143.24 | 176.27 | 213.27 | 254.83 | 301.56 | 354.04 | 382.63 | |
| 40 | 84.77 | 111.58 | 141.19 | 174.19 | 211.18 | 252.75 | 299.5 | 352.03 | 380.64 | |
| 45 | | 109.44 | 138.91 | 171.79 | 208.68 | 250.17 | 296.86 | 349.34 | 377.94 | |
| 50 | | | 136.34 | 169.01 | 205.72 | 247.04 | 293.58 | 345.94 | 374.48 | |
| 55 | | | | 165.81 | 202.24 | 243.31 | 289.62 | 341.76 | 370.2 | |
| 60 | | | | | 198.21 | 238.94 | 284.92 | 336.76 | 365.06 | |
| 65 | | | | | | 233.86 | 279.43 | 330.88 | 358.99 | |