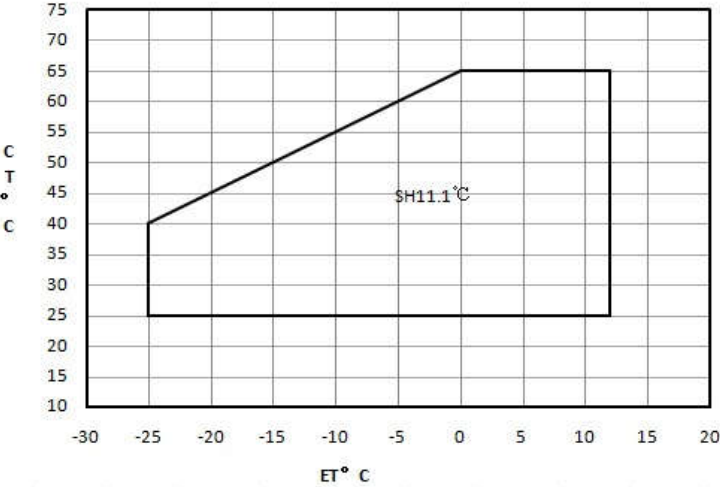


| Basic Specification          |                                         |
|------------------------------|-----------------------------------------|
| Model                        | YH450C1G-105                            |
| Type                         | Low Side Shell Design Scroll Compressor |
| Application                  | Air conditioning                        |
| Normal Power (HP)            | 15 HP                                   |
| Capacity (BTU/Hr)            | 181756                                  |
| Refrigerant                  | R410A                                   |
| Displacement (M³/H)          | 35.1                                    |
| Evaporating Temperature (°F) | 45.0                                    |
| Condensing Temperature (°F)  | 129.9                                   |
| Liquid subcooling (°F)       | 14.9                                    |
| Suction Superheat (°F)       | 20.0                                    |
| Power Input (W)              | 16538                                   |
| COP                          | 10.99                                   |
| Current (A)                  | 26.31                                   |

| Mechanical and Physical Data       |                  |
|------------------------------------|------------------|
| Length/Width/Height (mm)           | 248/272/556.7    |
| Weight (kg)                        | 59               |
| Stub Suction (inch)                | 1 1/8            |
| Stub Discharge (inch)              | 7/8              |
| Base mounting (hole dia)           | 190.5X190.5(8.5) |
| Oil type                           | POE              |
| Initial charge of oil quantity (L) | 3.7              |
| Recharge of oil quantity (L)       | 3.5              |
| High Side PS Max., (MPa)           | 4.3              |
| Low Side PS Max., (MPa)            | 2.0              |

| Electrical Data              |                   |
|------------------------------|-------------------|
| Electricity                  | 460V/60Hz/3P      |
| Standard Conditions          | 7.2/54.4/11.1/8.3 |
| Normal Power (HP)            | 15                |
| Normal Capacity (W)          | 54053             |
| Normal Power input(W)        | 16511             |
| Normal COP (W/W)             | 3.27              |
| Normal Current(A)            | 24.1              |
| Locked Rotor Current(A)      | 148.5             |
| Maximum operating current(A) | 36                |

Compressor Operating Envelope



Suction Superheat: 20.0

Liquid subcooling: 14.9

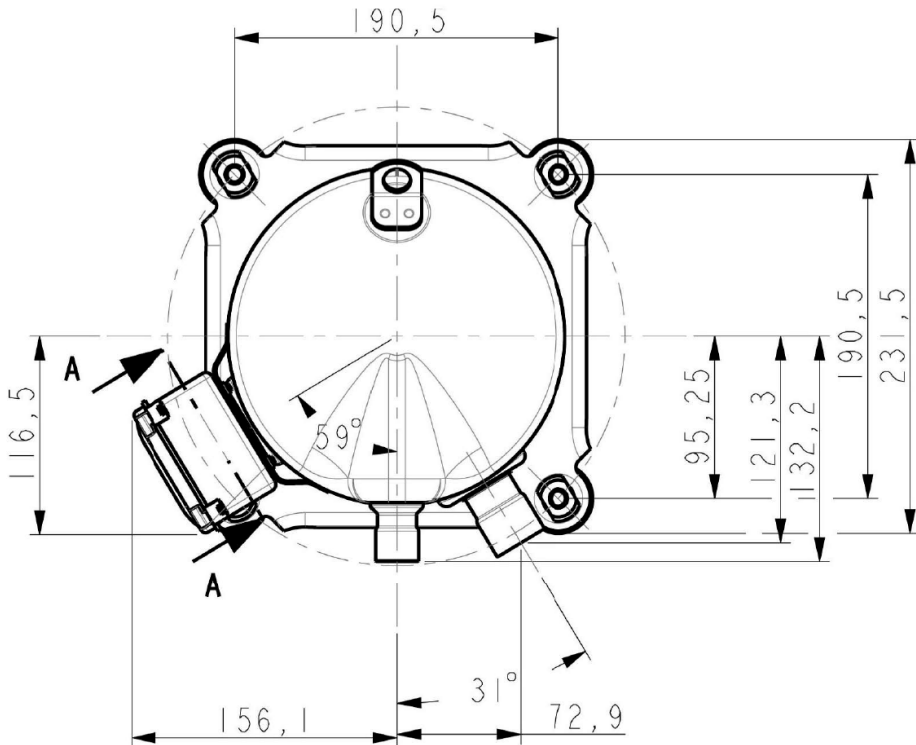
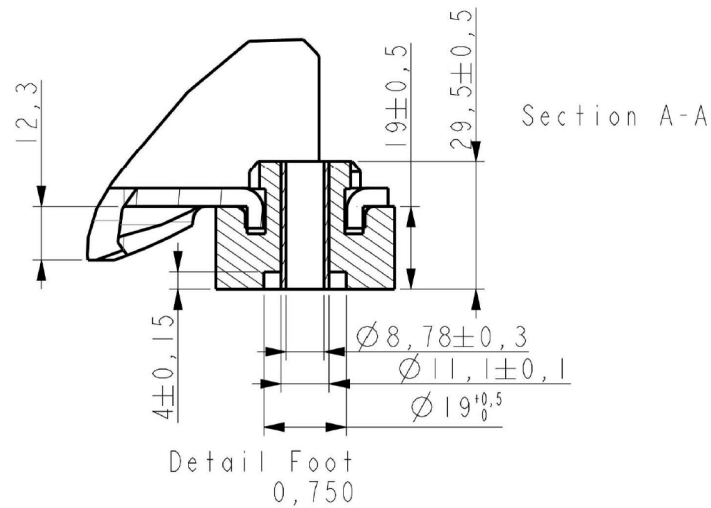
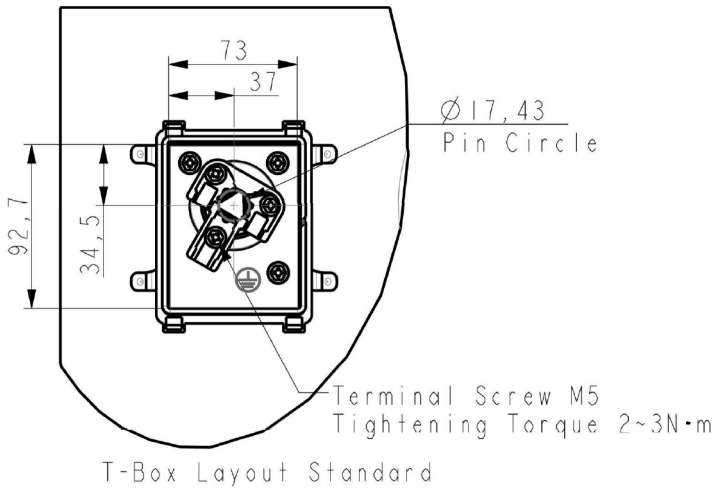
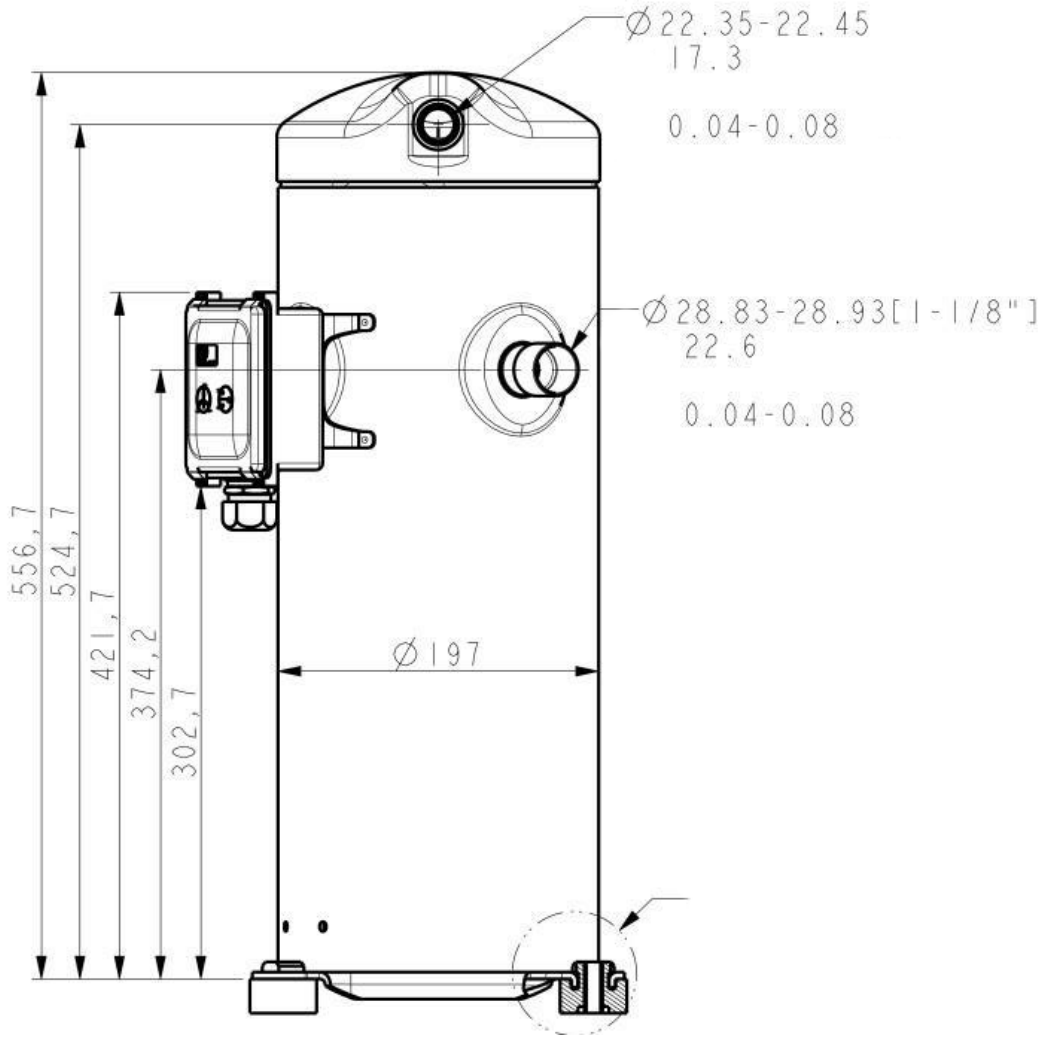
| Capacity (BTU/h) |       |        |        |        |        |        |        |        |
|------------------|-------|--------|--------|--------|--------|--------|--------|--------|
| Tc/Te            | -13   | 0      | 10     | 20     | 30     | 40     | 50     | 54     |
| 100              | 66494 | 88863  | 110754 | 137188 | 168676 | 205662 | 248693 | 267682 |
| 110              |       | 83194  | 103924 | 128821 | 158396 | 193026 | 233291 | 251050 |
| 120              |       |        | 96342  | 119702 | 147331 | 179638 | 217171 | 233735 |
| 130              |       |        |        | 109149 | 134865 | 164817 | 199617 | 214986 |
| 140              |       |        |        |        | 120146 | 147809 | 179877 | 194016 |
| 149              |       |        |        |        |        | 130016 | 159625 | 172706 |
| 77               | 78720 | 103138 | 127659 | 157645 | 193675 | 236091 |        |        |
| 80               | 76807 | 100953 | 125132 | 154673 | 190089 | 231788 |        |        |
| 90               | 71309 | 94566  | 117585 | 145555 | 179024 | 218367 | 264164 |        |

| Power Input (W) |       |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Tc/Te           | -13   | 0     | 10    | 20    | 30    | 40    | 50    | 54    |
| 100             | 11147 | 11240 | 11334 | 11435 | 11535 | 11623 | 11689 | 11707 |
| 110             |       | 12615 | 12707 | 12794 | 12868 | 12918 | 12934 | 12929 |
| 120             |       |       | 14311 | 14422 | 14506 | 14555 | 14557 | 14543 |
| 130             |       |       |       | 16321 | 16453 | 16537 | 16563 | 16555 |
| 140             |       |       |       |       | 18725 | 18881 | 18968 | 18980 |
| 149             |       |       |       |       |       | 21303 | 21476 | 21519 |
| 77              | 8512  | 8751  | 8988  | 9261  | 9561  | 9876  |       |       |
| 80              | 8820  | 9025  | 9233  | 9473  | 9735  | 10009 |       |       |
| 90              | 9920  | 10045 | 10177 | 10330 | 10492 | 10655 | 10809 |       |

| Current (A) |       |       |       |       |       |       |       |       |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Tc/Te       | -13   | 0     | 10    | 20    | 30    | 40    | 50    | 54    |
| 100         | 20.81 | 20.64 | 20.28 | 19.84 | 19.41 | 19.09 | 18.98 | 19.02 |
| 110         |       | 22.72 | 22.43 | 22    | 21.55 | 21.16 | 20.94 | 20.91 |
| 120         |       |       | 24.71 | 24.42 | 24.04 | 23.69 | 23.46 | 23.42 |
| 130         |       |       |       | 26.82 | 26.64 | 26.42 | 26.29 | 26.27 |
| 140         |       |       |       |       | 29.09 | 29.13 | 29.19 | 29.25 |
| 149         |       |       |       |       |       | 31.32 | 31.66 | 31.82 |
| 77          | 17.33 | 17.33 | 17.23 | 17.15 | 17.18 | 17.42 |       |       |
| 80          | 17.63 | 17.57 | 17.41 | 17.24 | 17.18 | 17.32 |       |       |
| 90          | 19.02 | 18.84 | 18.53 | 18.17 | 17.87 | 17.73 | 17.84 |       |

| Mass Flow (Kg/h) |        |        |        |        |        |         |         |         |
|------------------|--------|--------|--------|--------|--------|---------|---------|---------|
| Tc"le            | -13    | 0      | 10     | 20     | 30     | 40      | 50      | 54      |
| 100              | 340.02 | 510.21 | 638.41 | 775.98 | 934.41 | 1124.09 | 1356.72 | 1463.97 |
| 110              |        | 504.68 | 638.08 | 778.19 | 936.5  | 1123.42 | 1350.62 | 1454.96 |
| 120              |        |        | 631.68 | 777.25 | 938.37 | 1125.44 | 1350.12 | 1452.72 |
| 130              |        |        |        | 763.26 | 930.11 | 1120.24 | 1345.35 | 1447.36 |
| 140              |        |        |        |        | 901.78 | 1097.91 | 1326.35 | 1428.96 |
| 149              |        |        |        |        |        | 1054.98 | 1288.93 | 1393.06 |
| 77               | 382.77 | 542.68 | 670.02 | 812.82 | 982.61 | 1189.74 |         |         |
| 80               | 373.78 | 533.9  | 660.47 | 801.71 | 969.13 | 1173.11 |         |         |
| 90               | 353.41 | 516.66 | 642.58 | 780.53 | 942    | 1137.37 | 1378.36 |         |

Drawings  
Outline Drawing



ALL TOLERANCES UNLESS  
OTHERWISE SPECIFIED: ±2

TUBE ENDS MUST BE PLUGGED

Application  
» See Details in the YH serial air-condition scroll  
compressor application manual