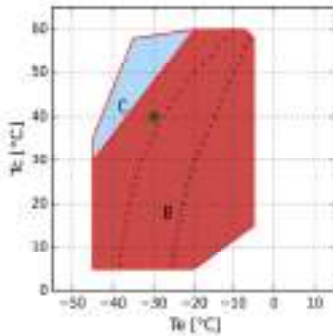




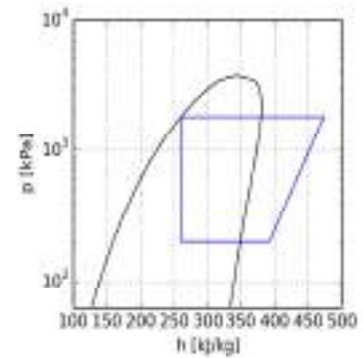
Calculation - H

Input

| | |
|-------------------------------|-----------------------|
| Model | H1601CS |
| Refrigerant | R404A |
| Evaporating temperature | -30.0 °C |
| Condensing temperature | 40.0 °C |
| Reference temperature | Dew temperature |
| Suction temperature | 20.0 °C |
| Evaporator outlet temperature | 20.0 °C |
| Liquid subcooling | 0.0 K |
| Voltage / phases / frequency | 380-420 V / 3 / 50 Hz |
| Capacity control system | 100% |



- B = Standard application
- C = Head cooling fan or max superheating 20K
- x = Min Te 50%
- * = Min Te 50% Head cooling fan or max superheating 20K
- = Dew temperature



Performance calculation

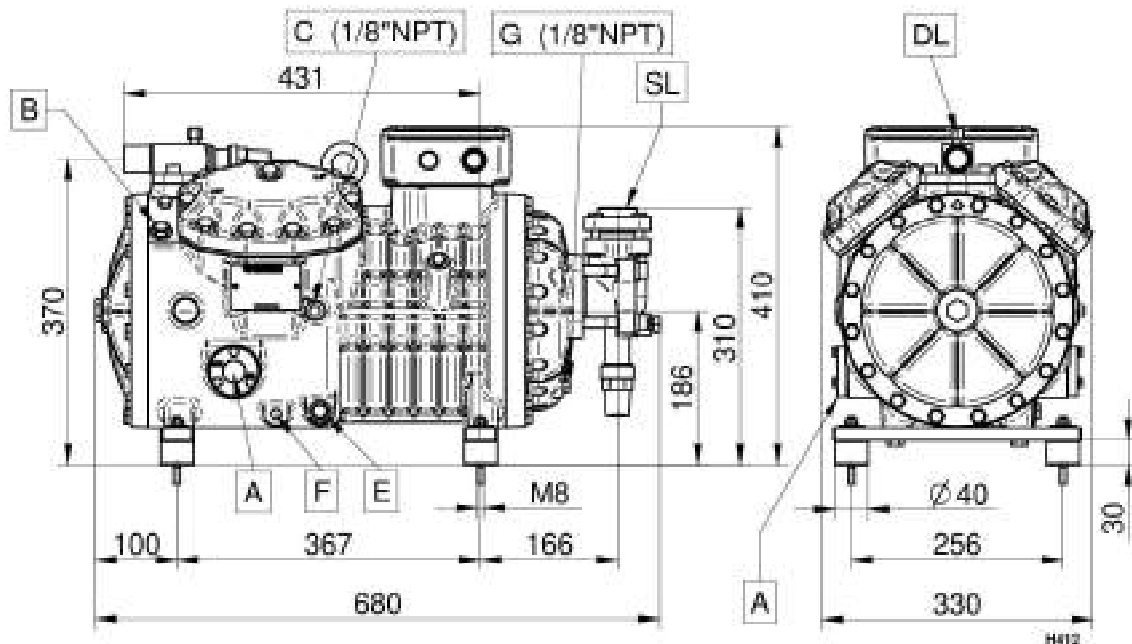
| | Standard conditions | At evaporator | At compressor |
|-----------------------|---------------------|---------------|---------------|
| Cooling capacity | 14880 W | 14880 W | 14880 W |
| Absorbed power | 8.81 kW | 8.81 kW | 8.81 kW |
| Condenser capacity | 23.69 kW | 23.69 kW | 23.69 kW |
| COP | 1.69 | 1.69 | 1.69 |
| Mass flow | 402.9 kg/h | 402.9 kg/h | 402.9 kg/h |
| Absorbed current | 20.0 A | 20.0 A | 20.0 A |
| Discharge temperature | 106.2 °C | 106.2 °C | 106.2 °C |
| Max operating current | 34.0 A | 34.0 A | 34.0 A |
| Locked rotor current | 170.5 A | 170.5 A | 170.5 A |



Technical data

| | | |
|----------------------|-------|---------------------|
| No. cylinders | 4.0 | |
| Bore | 72.0 | [mm] |
| Stroke | 45.0 | [mm] |
| Displacement @ 50 Hz | 63.76 | [m ³ /h] |
| Displacement @ 60 Hz | 76.51 | [m ³ /h] |
| Suction valve | 42 s. | [mm] |
| Discharge valve | 28 s. | [mm] |
| Oil charge | 2.5 | [L] |
| Net weight | 134.0 | [kg] |

Overall dimensions [mm]



A - Oil sight glass

B - Oil charge plug

C - Low pressure connection

D - High pressure connection

E - Oil drain plug

F - Crankcase heater

DL - Discharge service valve

SL - Suction service valve



Configuration: Standard \ Optional

| | |
|--|----------|
| TE=Thermistor protection | Standard |
| REL=Motor protection electronic module | Standard |
| CH=Crankcase heater | Optional |
| TCH=Self-regulated crankcase heater | Optional |
| SLCR=Stepless capacity regulator | Optional |
| BF=Head cooling fan | Optional |
| WH=Water cooled head | Optional |
| US=Unloaded start by-pass | Optional |
| ALL=Oil level warning device | Optional |
| IP65=Electrical box IP65 | Standard |
| CR1=Capacity control 50-100% | Optional |
| UL=UL approved compressor | Optional |
| For operation with HFC refrigerants the compressor must be ordered with POE OIL. For operation with HCFC refrigerant the compressor shall be ordered with mineral oil. | |
| HFC (POE 46) - HCFC (MIN 46-68) | Standard |
| For low temperature application external cooling must be provided. | |
| Motors suitable for operation at different voltage from those listed above may be supplied on request. | |
| 220-240/3/50 (Δ) 380-420/3/50 (Y) | Optional |
| 265-290/3/60 (Δ) 440-480/3/60 (Y) | Optional |
| 380-420/3/50 (PWS) 440-480/3/60 (PWS) | Standard |
| 208-230/3/60 (Δ) 360-400/3/60 (Y) | Optional |
| 208-230/3/60 (PWS) | Optional |
| 220-240/3/50 (PWS) | Optional |
| 360-400/3/60 (PWS) | Optional |
| 475-525/3/50 (PWS) 570-630/3/60 (PWS) | Optional |