

Type: Semi-hermetic piston compressors

Producer: Frascold

Series: Q

## Model: Q 4 21.1 Y

### Technical data

|                                   |       |
|-----------------------------------|-------|
| Nominal motor power [kW/HP]:      | 3 / 4 |
| Cylinder count:                   | 4     |
| Displacement [m <sup>3</sup> /h]: | 21,18 |
| RPM [min <sup>-1</sup> ]:         | 1450  |
| Weight net [kg]:                  | 79    |
| Weight gross [kg]:                | 82    |
| Oil charge [dm <sup>3</sup> ]:    | 1,8   |

### Electrical data

|                             |             |             |
|-----------------------------|-------------|-------------|
| Power supply [V/~ /Hz]:     | 230V/3/50 Δ | 400V/3/50 Y |
| Locked rotor current [A]:   | 92,6        | 53,2        |
| Max. operating current [A]: | 17,3        | 10          |

### Connections

|                 |                   |               |
|-----------------|-------------------|---------------|
|                 | <u>milimeters</u> | <u>inches</u> |
| Suction line:   | 28,6              | 1 1/8"        |
| Discharge line: | 19                | 3/4"          |

R134a

### **Cooling capacity [W]**

| $t_c \setminus t_e$ | 12.5   | 7.5    | 5      | 0      | -5    | -10   | -15   | -20   |
|---------------------|--------|--------|--------|--------|-------|-------|-------|-------|
| 30                  | 19 450 | 17 670 | 14 440 | 11 640 | 9 240 | 7 210 | 5 540 | 4 190 |
| 40                  | 17 150 | 15 540 | 12 640 | 10 120 | 7 980 | 6 170 | 4 680 | 3 470 |
| 45                  | 15 960 | 14 450 | 11 710 | 9 350  | 7 330 | 5 640 | 4 240 | 3 110 |
| 50                  | 14 760 | 13 340 | 10 770 | 8 560  | 6 680 | 5 110 | 3 810 | 2 760 |

### **Power input [W]**

| $t_c \setminus t_e$ | 12.5  | 5     | 0     | -10   |
|---------------------|-------|-------|-------|-------|
| 40                  | 3 250 | 3 070 | 2 870 | 2 380 |

With head cooling

Operating conditions: suction gas temperature 20°C, 0K subcooling

$t_c$  - Condensing temperature [°C]

$t_e$  - Evaporating temperature [°C]

R404A/R507

### **Cooling capacity [W]**

| $t_c \setminus t_e$ | -5     | -10    | -15    | -20   | -25   | -30   | -35   | -40   | -45   |
|---------------------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| 30                  | 16 350 | 13 350 | 10 760 | 8 530 | 6 640 | 5 060 | 3 760 | 2 700 | 1 860 |
| 40                  | 13 860 | 11 230 | 8 970  | 7 040 | 5 410 | 4 060 | 2 950 | 2 050 | 1 330 |
| 45                  | 12 560 | 10 120 | 8 040  | 6 270 | 4 780 | 3 550 | 2 540 | 1 730 | 1 070 |
| 50                  | 11 230 | 9 000  | 7 090  | 5 490 | 4 150 | 3 040 | 2 150 | 1 420 | -     |

### **Power input [W]**

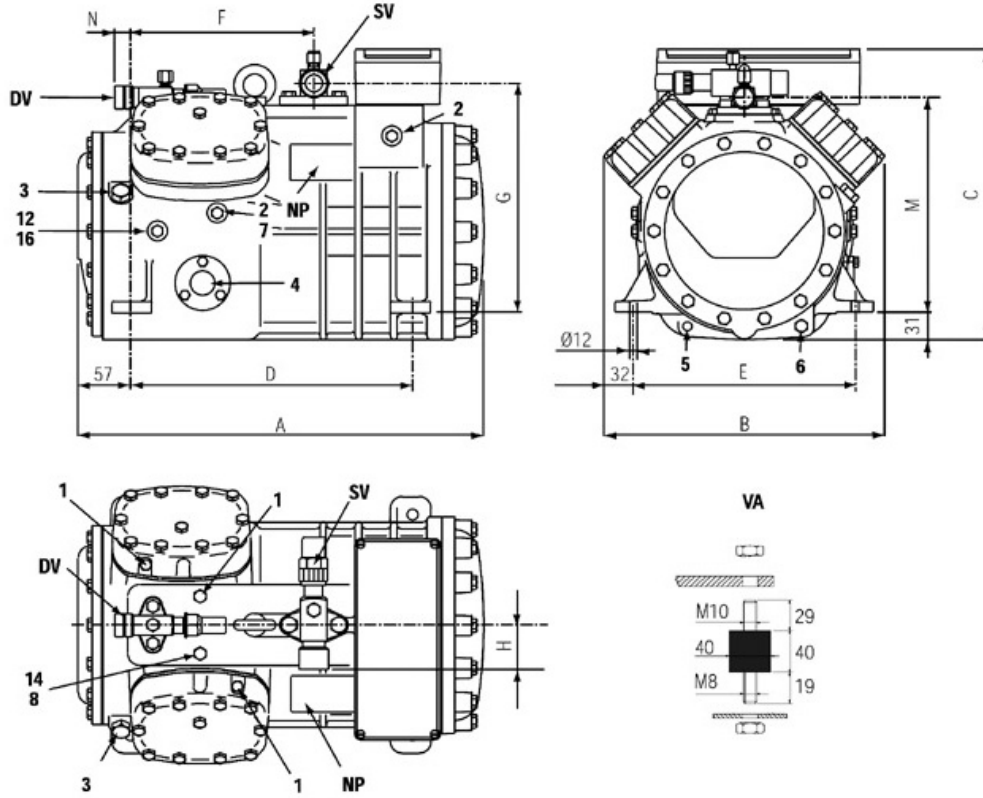
| $t_c \setminus t_e$ | -10   | -20   | -30   | -40   |
|---------------------|-------|-------|-------|-------|
| 40                  | 4 470 | 3 640 | 2 760 | 1 960 |

With head cooling

Operating conditions: suction gas temperature 20°C, 0K subcooling

$t_c$  - Condensing temperature [°C]

$t_e$  - Evaporating temperature [°C]



|   |        |
|---|--------|
| A | 449 mm |
| B | 315 mm |
| C | 325 mm |
| D | 312 mm |
| E | 246 mm |
| F | 203 mm |
| G | 258 mm |
| H | 53 mm  |
| M | 239 mm |
| N | 12 mm  |

- |                                |                                            |
|--------------------------------|--------------------------------------------|
| 1: high pressure plug          | 2: low pressure plug                       |
| 3: oil charge plug             | 4: oil level sight glass                   |
| 5: crankcase heater seat       | 6: oil drain plug                          |
| 7: liquid injection valve plug | 8: liquid injection sensor plug            |
| 12: oil return plug            | 14: max. discharge temperature sensor plug |
| 16: crankcase pressure plug    | DV: discharge valve                        |
| NP: name plate                 | SV: suction valve                          |

