

Type: Semi-hermetic piston compressors

Producer: Frascold

Series: Q

Model: Q 5 21.1 Y

Technical data

Nominal motor power [kW/HP]:	3,7 / 5
Cylinder count:	4
Displacement [m ³ /h]:	21,18
RPM [min ⁻¹]:	1450
Weight net [kg]:	79
Weight gross [kg]:	82
Oil charge [dm ³]:	1,8

Electrical data

Power supply [V/~/Hz]:	230V/3/50 Δ	400V/3/50 Y
Locked rotor current [A]:	109,7	63,1
Max. operating current [A]:	20,1	11,6

Connections

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

R22

Cooling capacity [W]

$t_c \setminus t_e$	12.5	7.5	5	0	-5	-10	-15	-20	-25	-30
30	28 510	23 820	21 730	18 000	14 810	12 070	9 730	7 720	6 020	4 580
40	25 400	21 250	19 390	16 050	13 160	10 690	8 570	6 740	5 180	3 860
45	23 910	19 980	18 230	15 080	12 360	10 000	7 980	6 240	4 750	3 500
50	22 360	18 690	17 050	14 090	11 530	9 310	7 390	5 740	4 430	-

Power input [W]

$t_c \setminus t_e$	5	-10	-20	-30	-40
40	4 560	4 110	3 400	2 570	1 680

With head cooling

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

 t_c - Condensing temperature [°C] t_e - Evaporating temperature [°C]

R134a

Cooling capacity [W]

$t_c \setminus t_e$	12.5	7.5	5	0	-5	-10	-15	-20
50	14 920	13 470	10 860	8 610	6 700	5 100	3 770	2 700
60	12 630	11 360	9 060	7 100	5 440	4 060	2 930	2 020
70	10 330	9 230	7 271	5 610	4 220	3 080	2 160	1 420
80	8 040	7 130	5 510	4 170	3 060	2 170	-	-

Power input [W]

$t_c \setminus t_e$	12.5	5	0	-10
60	4 260	3 740	3 360	2 580

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]

$t_c \setminus t_e$	7.5	5	0	-5	-10	-15	-20	-25	-30
30	25 610	23 570	19 810	16 470	13 500	10 900	8 620	6 640	4 950
40	21 570	19 830	16 630	13 790	11 260	9 040	7 090	5 380	3 900
45	19 540	17 950	15 030	12 440	10 130	8 100	6 310	4 740	3 360
50	17 510	16 070	13 430	11 080	9 000	7 160	5 540	4 100	2 830

Power input [W]

$t_c \setminus t_e$	5	-10	-20	-30
40	5 090	4 460	3 670	2 660

With head cooling

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

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

R407C

Cooling capacity [W]

$t_c \setminus t_e$	12.5	7.5	5	0	-5	-10	-15	-20	-25
30	28 130	25 640	21 130	17 210	13 840	10 970	8 550	6 550	4 910
40	24 500	22 290	18 300	14 850	11 890	9 380	7 270	5 530	4 100
45	22 660	20 590	16 860	13 650	10 910	8 590	6 650	5 040	3 720
50	20 800	18 880	15 430	12 460	9 940	7 820	6 050	4 580	3 380

Power input [W]

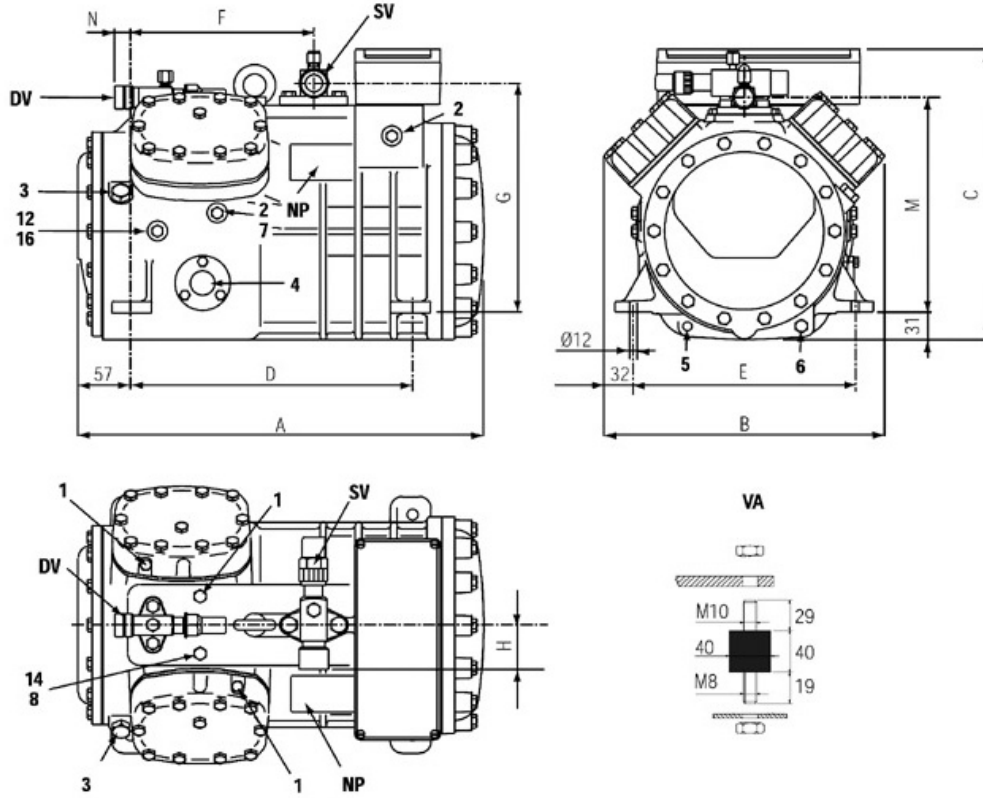
$t_c \setminus t_e$	7.5	0	-10	-20
40	4 680	4 190	3 590	2 830

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

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|--------------------------------|--|
| 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 |

