

Type: Semi-hermetic piston compressors

Producer: Frascold

Series: A

Model: A 1 6 Y

Technical data

| | |
|-----------------------------------|----------|
| Nominal motor power [kW/HP]: | 0,75 / 1 |
| Cylinder count: | 2 |
| Displacement [m ³ /h]: | 5,47 |
| RPM [min ⁻¹]: | 1450 |
| Weight net [kg]: | 36 |
| Weight gross [kg]: | 37 |
| Oil charge [dm ³]: | 1,2 |

Electrical data

| | | |
|-----------------------------|-------------|-------------|
| Power supply [V/~/Hz]: | 230V/3/50 Δ | 400V/3/50 Y |
| Locked rotor current [A]: | 23,6 | 13,6 |
| Max. operating current [A]: | 6,2 | 3,6 |

Connections

| | <u>milimeters</u> | <u>inches</u> |
|-----------------|-------------------|---------------|
| Suction line: | 15,8 | 5/8 |
| Discharge line: | 12,7 | 1/2 |

R22

Cooling capacity [W]

| $t_c \setminus t_e$ | 12.5 | 7.5 | 5 | 0 | -5 | -10 | -15 | -20 | -25 | -30 | -35 | -40 |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|
| 30 | 7 090 | 5 910 | 5 380 | 4 450 | 3 650 | 2 960 | 2 350 | 1 840 | 1 420 | 1 070 | 780 | 550 |
| 40 | 6 280 | 5 230 | 4 760 | 3 930 | 3 210 | 2 590 | 2 050 | 1 590 | 1 210 | 890 | 640 | 440 |
| 45 | 5 890 | 4 900 | 4 460 | 3 670 | 2 990 | 2 410 | 1 900 | 1 470 | 1 110 | 810 | 570 | 380 |
| 50 | 5 480 | 4 560 | 4 150 | 3 410 | 2 780 | 2 230 | 1 750 | 1 340 | 1 090 | 730 | 500 | 330 |

Power input [W]

| $t_c \setminus t_e$ | 5 | -10 | -20 | -30 | -40 |
|---------------------|-------|-----|-----|-----|-----|
| 40 | 1 130 | 990 | 840 | 660 | 470 |

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 | 3 730 | 3 090 | 2 800 | 2 280 | 1 830 | 1 440 | 1 110 | 830 |
| 60 | 3 210 | 2 650 | 2 390 | 1 930 | 1 540 | 1 190 | 900 | 650 |
| 70 | 2 670 | 2 190 | 1 980 | 1 580 | 1 240 | 940 | 690 | 470 |
| 80 | 2 120 | 1 730 | 1 560 | 1 230 | 950 | 700 | 480 | 300 |

Power input [W]

| $t_c \setminus t_e$ | 12.5 | 5 | 0 | -10 |
|---------------------|-------|-----|-----|-----|
| 60 | 1 110 | 940 | 840 | 660 |

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 | -35 | -40 | -45 |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|
| 30 | 6 540 | 6 000 | 5 020 | 4 180 | 3 450 | 2 820 | 2 270 | 1 790 | 1 390 | 1 040 | 740 | 500 |
| 40 | 5 570 | 5 110 | 4 290 | 3 560 | 2 930 | 2 380 | 1 900 | 1 480 | 1 120 | 810 | 550 | 330 |
| 45 | 5 080 | 4 670 | 3 910 | 3 250 | 2 670 | 2 160 | 1 710 | 1 330 | 990 | 700 | 460 | 250 |
| 50 | 4 590 | 4 220 | 3 540 | 2 940 | 2 410 | 1 940 | 1 530 | 1 170 | 860 | 590 | 360 | - |

Power input [W]

| $t_c \setminus t_e$ | 5 | -10 | -20 | -30 | -40 |
|---------------------|-------|-------|-----|-----|-----|
| 40 | 1 570 | 1 240 | 990 | 750 | 530 |

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 | 7 210 | 5 990 | 5 450 | 4 490 | 3 670 | 2 960 | 2 360 | 1 850 | 1 420 |
| 40 | 6 320 | 5 250 | 4 780 | 3 930 | 3 200 | 2 570 | 2 030 | 1 570 | 1 170 |
| 45 | 5 870 | 4 880 | 4 440 | 3 650 | 2 960 | 2 360 | 1 850 | 1 420 | 1 050 |
| 50 | 5 420 | 4 500 | 4 090 | 3 350 | 2 710 | 2 160 | 1 680 | 1 270 | 920 |

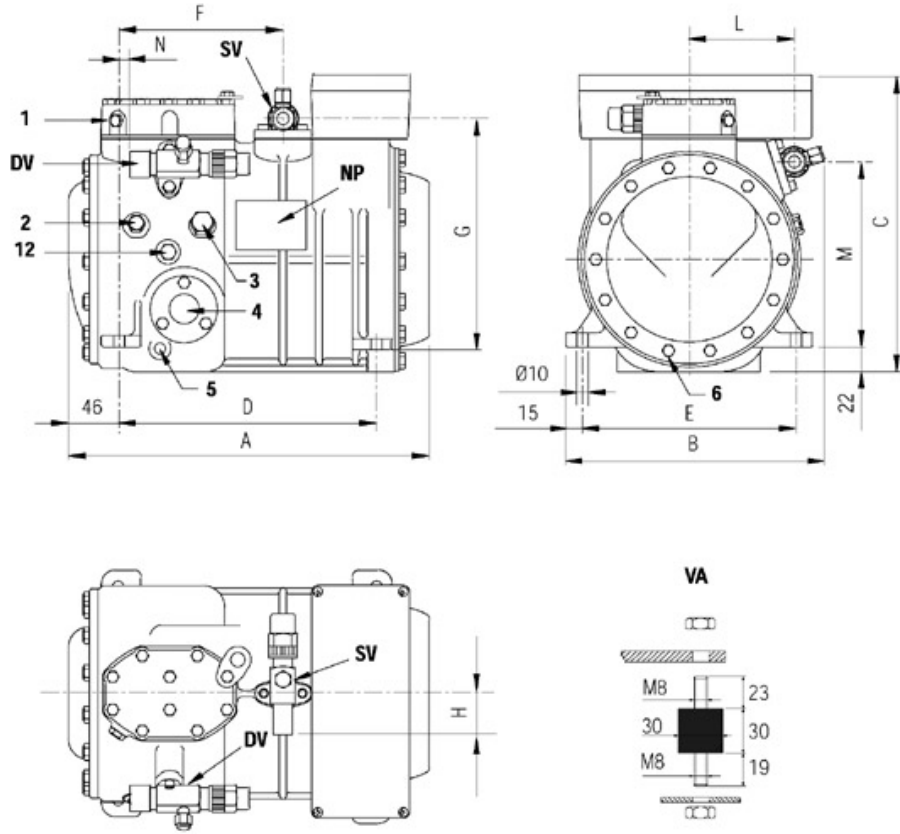
Power input [W]

| $t_c \setminus t_e$ | 7.5 | 0 | -10 | -20 |
|---------------------|-------|-------|-------|-----|
| 40 | 1 330 | 1 260 | 1 060 | 860 |

With head cooling

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

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



| | |
|---|--------|
| A | 313 mm |
| B | 237 mm |
| C | 275 mm |
| D | 234 mm |
| E | 194 mm |
| F | 150 mm |
| G | 209 mm |
| H | 29 mm |
| L | 95 mm |
| M | 168 mm |
| N | 18 mm |

1: high pressure plug
 3: oil charge plug
 5: crankcase heater seat
 12: oil return plug
 NP: name plate

2: low pressure plug
 4: oil level sight glass
 6: oil drain plug
 DV: discharge valve
 SV: suction valve

