

Type: Semi-hermetic piston compressors
Producer: Frascold
Series: W

Model: W 50 168 Y

Technical data

Nominal motor power [kW/HP]:	37 / 50
Cylinder count:	8
Displacement [m ³ /h]:	167,6
RPM [min ⁻¹]:	1450
Weight net [kg]:	305
Weight gross [kg]:	331
Oil charge [dm ³]:	8

Electrical data

	<u>DOL Y Y</u>	<u>PWS Y / Y</u>
Power supply [V/~/Hz]:	400V/3/50	400V/3/50
Locked rotor current [A]:	367	258
Max. operating current [A]:	94,8	94,8

Connections

	<u>milimeters</u>	<u>inches</u>
Suction line:	79,4	3 1/8
Discharge line:	42	1 5/8

R22

Cooling capacity [W]

$t_c \setminus t_e$	12.5	7.5	5	0	-5	-10	-15	-20
30	232 430	194 150	177 250	147 180	121 580	99 750	81 160	65 370
40	206 330	172 620	157 690	131 060	108 270	88 770	72 080	57 880
45	193 720	162 190	148 200	123 200	101 760	83 410	67 620	54 190
50	-	-	-	115 290	95 210	77 960	63 150	50 500

Power input [W]

$t_c \setminus t_e$	5	-10	-20
40	39 830	33 740	27 220

	With head cooling
	With liquid injection or oil cooler

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	117 570	97 270	88 090	71 550	57 260	45 010	34 590	25 800
60	99 850	82 050	74 020	59 600	47 180	36 540	27 490	19 820
70	82 260	66 950	60 080	47 780	37 230	28 220	20 540	-
80	64 890	52 080	46 370	36 200	27 520	20 140	-	-

Power input [W]

$t_c \setminus t_e$	12.5	5	0	-10
60	33 780	30 040	27 270	21 380

	With head cooling
	With liquid injection or oil cooler

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	215 370	197 600	165 220	136 780	112 000	90 590	72 270	56 730	43 690
40	183 980	168 620	140 690	116 240	94 980	76 620	60 880	47 460	36 060
45	167 650	153 535	127 930	105 560	86 160	69 420	55 060	42 780	32 310
50	150 940	138 101	114 880	94 660	77 170	62 110	49 200	38 130	28 630

Power input [W]

$t_c \setminus t_e$	5	-10	-20	-30
40	41 700	35 290	29 280	22 810

	With head cooling
	With liquid injection or oil cooler

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	234 600	214 260	177 380	145 230	117 420	93 560	73 260	56 120	41 750
40	205 890	187 710	154 810	126 210	101 510	80 330	62 280	46 960	33 970
45	191 790	174 680	143 770	116 950	93 820	73 980	57 050	42 640	30 350
50	177 870	161 840	132 930	107 890	86 320	67 830	52 030	38 530	26 930

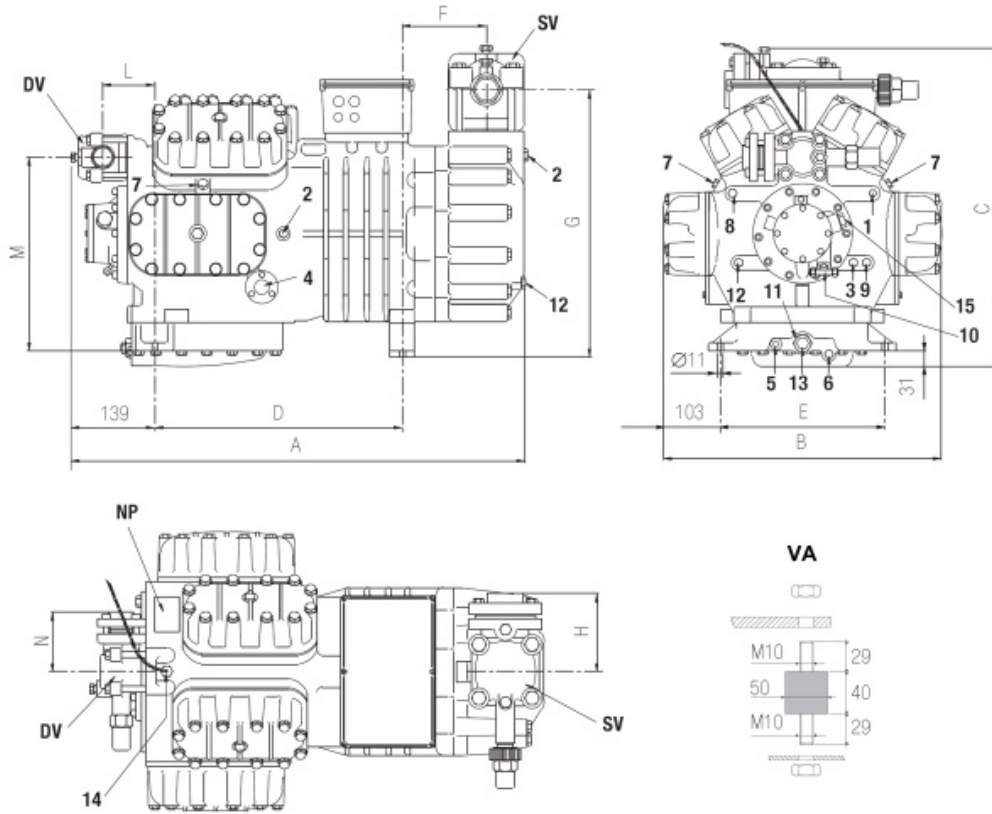
Power input [W]

$t_c \setminus t_e$	7.5	0	-10	-20
40	39 850	33 580	28 940	23 020

	With head cooling
	With liquid injection or oil cooler

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

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



A	831 mm
B	511 mm
C	588 mm
D	458 mm
E	305 mm
F	156 mm
G	486 mm
H	160 mm
L	95 mm
M	358 mm
N	95 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 |
| 9: oil pressure switch connection (l.p.) | 10: oil pressure switch connection (h.p.) |
| 11: oil filter | 12: oil return plug |
| 13: magnetic plug | 14: max. discharge temperature sensor plug |
| 15: electronic oil pressure switch connection | DV: discharge valve |
| NP: name plate | SD: oil pressure switch mounting bracket |
| SV: suction valve | |

