

## 4.7 Dimension drawings

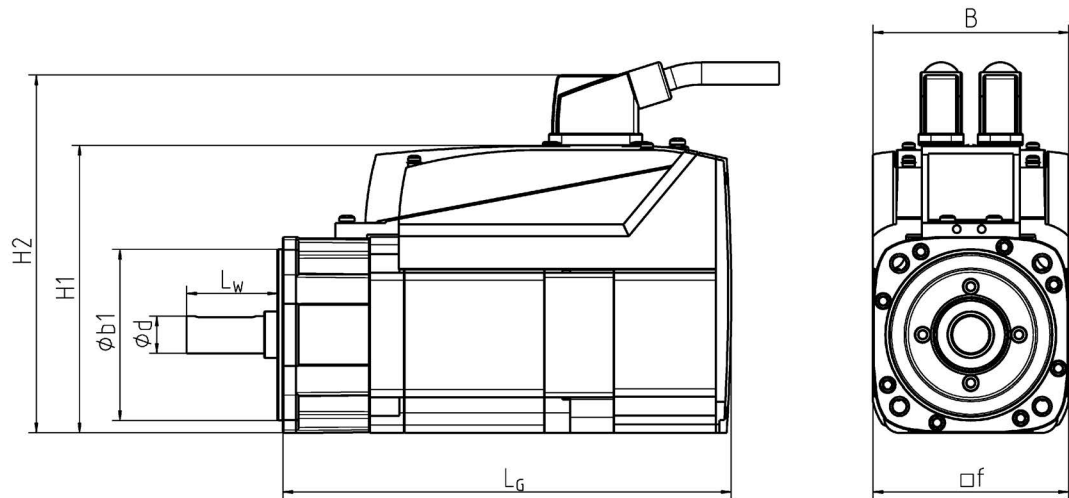


Figure 4-9 Dimension drawing of S120M

Table 4-6 Table with dimension data in mm and (inch)

Article number	Length $L_G$	Width $B$	Height $H_1$	Height $H_2$	Flange $\phi_f$	Centering edge $b_1$	Shaft $d \times L_w$
6SL3532-6DF71-0R□□	250 (9.84)	72 (2.83)	126 (4.96)	188 (7.4)	72 (2.83)	60 (2.36)	14 x 30 (0.55 x 1.18)
6SL3540-6DF71-0R□□	252 (9.92)	102 (4.02)	155 (6.1)	205 (8.07)	96 (3.78)	80 (3.15)	19 x 40 (0.75 x 1.57)
6SL3542-6DF71-0R□□	280 (11.02)	102 (4.02)	155 (6.1)	205 (8.07)	96 (3.78)	80 (3.15)	19 x 40 (0.75 x 1.57)
6SL3562-6DF71-0R□□	270 (10.63)	126 (4.96)	185 (7.28)	240 (9.45)	126 (4.96)	110 (4.33)	24 x 50 (0.94 x 1.97)
6SL3563-6DF71-0R□□	290 (11.42)	126 (4.96)	185 (7.28)	240 (9.45)	126 (4.96)	110 (4.33)	24 x 50 (0.94 x 1.97)

All dimensions are rounded off

**Note****Explanation of the dimensions**

- Length  $L_G$  is measured from the flange locating surface (the length is identical with/without brake)
- Height  $H_1$  without connector
- Height  $H_2$  with connector, without space for cable outlet

**NOTICE****Damage caused by liquid in the case of vertical installation with the shaft extension facing upwards**

If the shaft extension has been installed facing upwards (IM V3), it must be ensured that no liquid (water, drilling or cooling emulsion, etc.) can accumulate at the upper bearing, as this can damage the drive.

- If the drive is exposed to the influence of liquid, protect it in mounting position IM V3 using a cover.

Some of the motor power loss is dissipated through the flange when the S120M is connected to the mounting surface.

**Flange mounting**

- Ensure that the flange mounting is evenly distributed.
- When tightening the fixing screws avoid any uneven stressing.
- Use the hexagon socket head cap screws (with a minimum property class of 8.8)
- Note the tightening torques of the fixing screws for the motor flange (see the following table):

Table 4- 8 Tightening torques (for electrical connections)

Article number	Screw	Washer ISO 7092 (d2 = outer diameter) [mm]	Torque [Nm]
6SL3532-6DF71-0Rxx	M6	6 (d2 = 11)	8
6SL3540-6DF71-0Rxx 6SL3542-6DF71-0Rxx	M6	6 (d2 = 11)	8
6SL3562-6DF71-0Rxx 6SL3563-6DF71-0Rxx	M8	8 (d2 = 15)	20

**Non-thermally insulated mounting**

The following mounting conditions apply for the specified motor data:

Table 4- 9 Non-thermally insulated mounting conditions

Shaft height	Steel plate, width x height x thickness [mm]	Mounting surface[m <sup>2</sup> ]
Shaft heights 36 and 48	120 x 100 x 40	0.012
SH 63	450 x 370 x 30	0.17

For larger mounting surfaces, the heat dissipation conditions improve.

## 4.9 Technical data

Table 4- 10 Technical data of the S120M

Technical data	Unit	6SL3532-6DF71-0R..	6SL3540-6DF71-0R..	6SL3542-6DF71-0R..	6SL3562-6DF71-0R..	6SL3563-6DF71-0R..
<b>Motor data</b>						
Rated speed	rpm	3 000	3 000	3 000	3 000	3 000
Max. speed	rpm	9 000	9 000	6 400	5 600	6 400
Rated torque	Nm	0.8	1.05	1.8	2.7	2.2
Moment of inertia						
• without brake	kgm <sup>2</sup>	0.065 · 10 <sup>-3</sup>	0.16 · 10 <sup>-3</sup>	0.29 · 10 <sup>-3</sup>	1.12 · 10 <sup>-3</sup>	1.47 · 10 <sup>-3</sup>
• with brake	kgm <sup>2</sup>	0.075 · 10 <sup>-3</sup>	0.192 · 10 <sup>-3</sup>	0.32 · 10 <sup>-3</sup>	1.22 · 10 <sup>-3</sup>	1.57 · 10 <sup>-3</sup>
Shaft torsional stiffness	Nm/rad	4 100	13 000	11 400	26 500	25 000
<b>Output current</b>						
Nominal current (I <sub>nominal</sub> )	A <sub>rms</sub>	1.2	1.7	1.4	1.9	2.0
Base load current (I)	A <sub>rms</sub>	1.1	1.3	1.1	1.4	1.5
Intermittent duty current (I <sub>s6</sub> ) 40 %	A <sub>rms</sub>	1.7	2.5	2.0	2.8	2.9
Peak current (I <sub>max</sub> )	A <sub>rms</sub>	4.5	7.7	7.6	14.0	21.0
Static torque	Nm	1.0	1.3	2.5	5.0	7.1
Stall current	A	1.4	1.9	1.8	3.15	5.0
Max. torque	Nm	3.0	4.9	10.0	19.3	27.0
<b>Converter data</b>						
Electronics power supply	V <sub>DC</sub>	48				
Power consumption 48 V - electronics power supply	W	Max. 12				
Power drawn, brake	W	10	15	15	20	20
Rated DC link voltage	V <sub>DC</sub>	600				
DC link voltage	V <sub>DC</sub>	510 to 720				
Output voltage	V <sub>ACrms</sub>	0 to 0.717 · DC link voltage				
Overvoltage trip	V <sub>DC</sub>	820 ± 2 %				
Undervoltage trip	V <sub>DC</sub>	380 ± 2 %				
Current carrying capacity of the DC link	A <sub>DC</sub>	25.0				
DC link capacitance	μF	8	24	24	40	40
Pulse frequency	kHz	4				
Max. ambient temperature	°C					
• Without derating		40				
• With derating		55				
Min. ambient temperature	°C	-15				
Storage temperature	°C	-25 to +55				
Transport temperature	°C	-40 to +70				
Surface temperature	°C	<100				