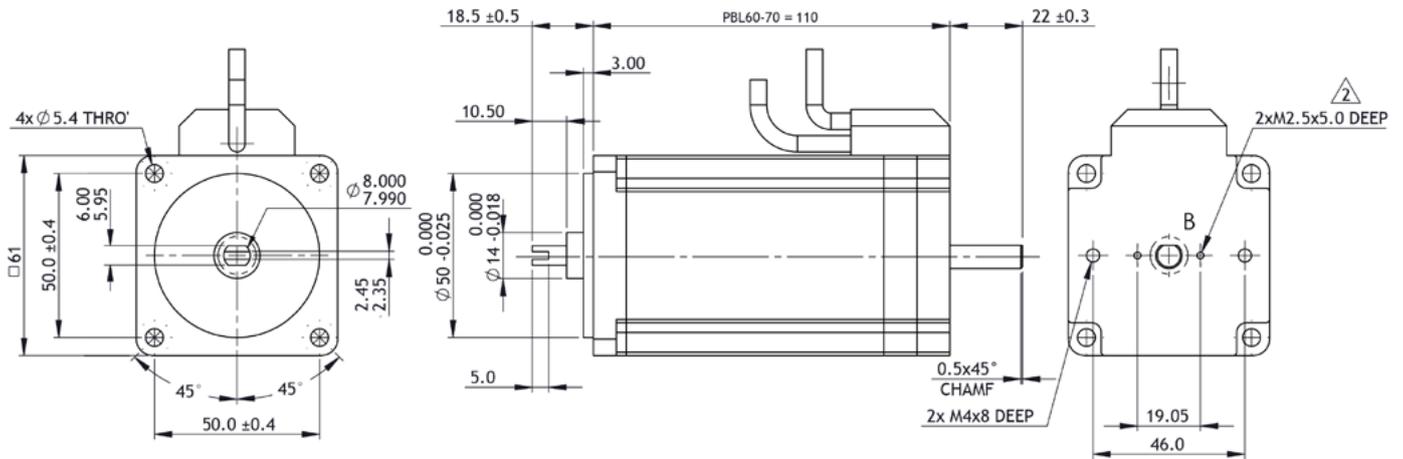


# PBL60-70 BLDC motor

Ø60 mm frame // 70 mm stack

**parvalux**  
by **maxon**



all dimensions in mm

### Part number key

Modular	#####
Standard	#####
Calculated data	#####

### Technical data

		776620	776621
1 Part number		776620	776621
2 Nominal power	<b>W</b>	157	157
3 Nominal voltage	<b>V</b>	24	48
4 No load speed	<b>rpm</b>	3983	3811
5 No load current	<b>A</b>	1.7	0.7
6 Nominal speed	<b>rpm</b>	3000	3000
7 Nominal continuous torque (S1)	<b>Nm</b>	0.5	0.5
8 Nominal continuous current (S1)	<b>A</b>	9.9	4.6
9 Max Intermittent torque (S2 - 15 minutes)	<b>Nm</b>	0.88	0.88
10 Stall current	<b>A</b>	63.44	36.90
11 Stall torque	<b>Nm</b>	3.7	4.5
12 Stack length	<b>mm</b>	70	70
13 Maximum efficiency	<b>%</b>	0.77	0.83
14 Ra	<b>Ω</b>	0.12	0.48
15 RI	<b>mH</b>	124.1	555.3
16 Speed constant	<b>rpm/V</b>	167.30	80.34
17 Torque constant	<b>Nm/A</b>	0.06	0.12
18 Speed torque gradient	<b>rpm/Nm</b>	1121.90	870.34
19 Rotor inertia	<b>Kgcm<sup>2</sup></b>	7.28 x 10 <sup>-6</sup>	7.28 x 10 <sup>-6</sup>
20 Weight	<b>Kg</b>	1.60	1.60

### Connection details

Lead colour	Lead gauge	Function
Red	UL1007/26 AWG	VCC
Black	UL1007/26 AWG	GND
Blue	UL1007/26 AWG	Hall A
Green	UL1007/26 AWG	Hall B
White	UL1007/26 AWG	Hall C
Red	UL1007/18 AWG	Phase U
Yellow	UL1007/18 AWG	Phase V
Black	UL1007/18 AWG	Phase W

### Thermal data

21 Ambient temperature	<b>°C</b>	40
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### Mechanical data

22 Radial load [distance from flange]	<b>N [mm]</b>	350 [15]
23 Radial play	<b>mm [g]</b>	0.025 [450]
24 Axial end play	<b>mm [g]</b>	0.025 [450]

### Other data

25 Number of poles	8
26 Winding type	Delta
27 Hall effect angle (electrical angle)	° 120
28 IP Rating	IP54
29 Enclosure	Enclosed
30 Insulation Class	B

### Modular system

Gearbox	+L mm	Brake	+L mm	Encoder	+L mm
S Box	110.0	1.5 Nm	28.2	Incr. 5-pin	9.0
M Box	88.0	2.0 Nm	32.4	Incr. 10-pin	9.0
MWS	110.0	4.0 Nm	27.7	Diff. 10-pin	12.0
MIW	83.0	Power-on	26.4	Magnetic	12.0
GB12	110.0				
GB28	88.0				
GB36	166.0				
GB58	50.0				
GB80	80.0				
PGx52	50.0 - 85.0				

### Controller

SC 50/15
ESCON
EPOS

### Key

Standard combination
Modular combination

\*+L mm = approximate added length\*

\*additional length may also be required for mounting flange between components