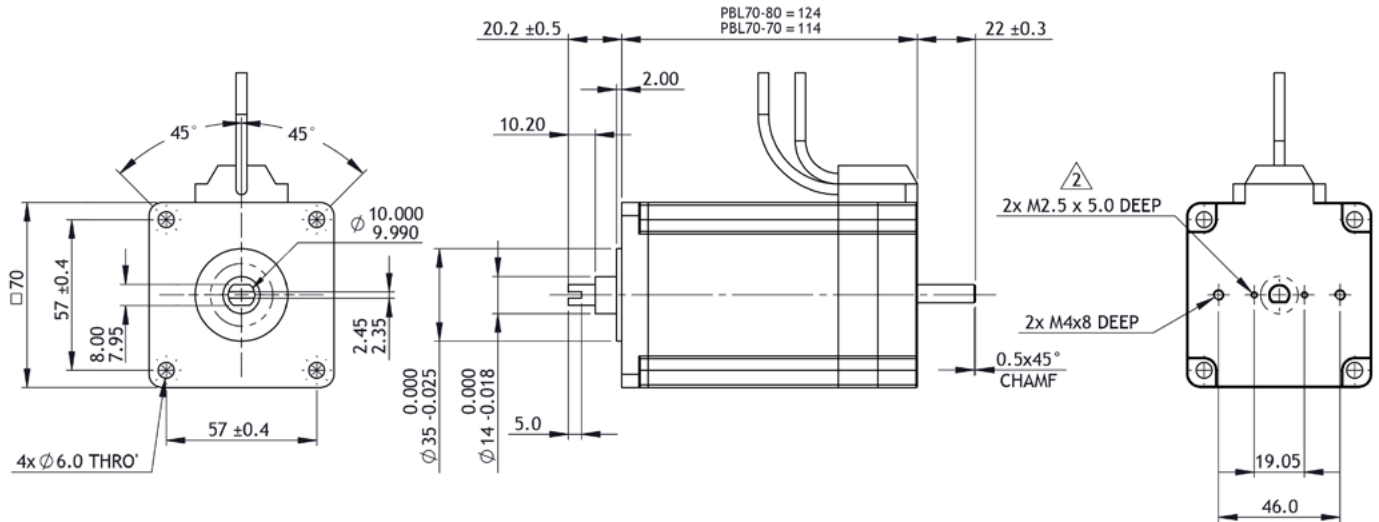


# PBL70-70 BLDC motor

Ø70 mm frame // 70 mm stack

**parvalux**  
by **maxon**



all dimensions in mm

### Part number key

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

### Technical data

1 Part number		<b>776622</b>
2 Nominal power	<b>W</b>	363
3 Nominal voltage	<b>V</b>	48
4 No load speed	<b>rpm</b>	4857
5 No load current	<b>A</b>	1.4
6 Nominal speed	<b>rpm</b>	4500
7 Nominal continuous torque (S1)	<b>Nm</b>	0.77
8 Nominal continuous current (S1)	<b>A</b>	8.9
9 Max Intermittent torque (S2 - 15 minutes)	<b>Nm</b>	1.35
10 Stall current	<b>A</b>	68.2
11 Stall torque	<b>Nm</b>	6.9
12 Stack length	<b>mm</b>	70
13 Maximum efficiency	<b>%</b>	84
14 Ra	<b>Ω</b>	0.151
15 RI	<b>mH</b>	0.283
16 Speed constant	<b>rpm/V</b>	102.2
17 Torque constant	<b>Nm/A</b>	0.103
18 Speed torque gradient	<b>rpm/Nm</b>	731.0
19 Rotor inertia	<b>Kgcm<sup>2</sup></b>	2.39 x 10 <sup>-4</sup>
20 Weight	<b>Kg</b>	2.20

### Connection details

Lead colour	Lead gauge	Function
Red	UL1569/26 AWG	VCC
Black	UL1569/26 AWG	GND
Blue	UL1569/26 AWG	Hall A
Green	UL1569/26 AWG	Hall B
White	UL1569/26 AWG	Hall C
Red	UL3266/16 AWG	Phase U
Yellow	UL3266/16 AWG	Phase V
Black	UL3266/16 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)	<b>°</b>	120
28 IP Rating		IP54
29 Enclosure		Enclosed
30 Insulation Class		B

### Modular system

<b>Gearbox</b>	<b>+L mm</b>	<b>Brake</b>	<b>+L mm</b>	<b>Controller</b>
GB12	110	1.5 Nm	28.2	SC 50/15
		<b>Encoder</b>	<b>+L mm</b>	
		Incremental	9	

+L mm = approximate added length\*

### Compatible products key

Product name Standard combination

Product name Modular combination

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