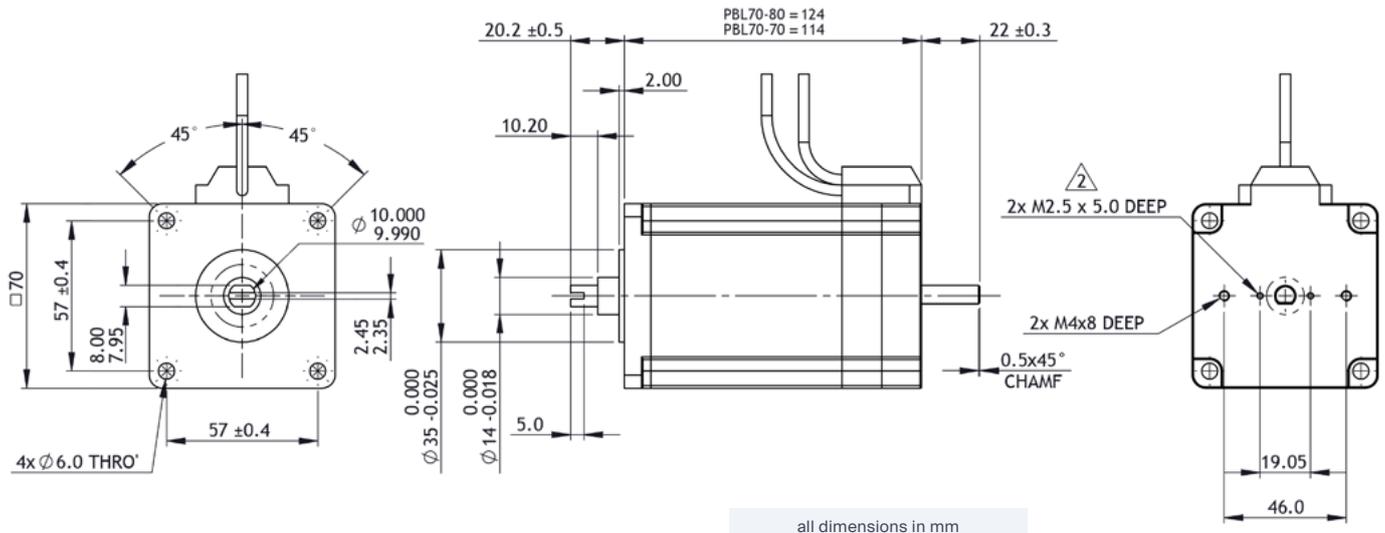


# PBL70-80 BLDC motor

Ø70 mm frame // 80 mm stack

**parvalux**  
by **maxon**



Part number key		
Modular	#####	
Standard	#####	
Calculated data	#####	

Technical data			Connection details		
1 Part number		<b>776623</b>	<b>Lead colour</b>	<b>Lead gauge</b>	<b>Function</b>
2 Nominal power	<b>W</b>	415	Red	UL1569/26 AWG	VCC
3 Nominal voltage	<b>V</b>	48	Black	UL1569/26 AWG	GND
4 No load speed	<b>rpm</b>	4902	Blue	UL1569/26 AWG	Hall A
5 No load current	<b>A</b>	1.5	Green	UL1569/26 AWG	Hall B
6 Nominal speed	<b>rpm</b>	4500	White	UL1569/26 AWG	Hall C
7 Nominal continuous torque (S1)	<b>Nm</b>	0.88	Red	UL3266/16 AWG	Phase U
8 Nominal continuous current (S1)	<b>A</b>	10.4	Yellow	UL3266/16 AWG	Phase V
9 Max Intermittent torque (S2 - 15 minutes)	<b>Nm</b>	1.54	Black	UL3266/16 AWG	Phase W
10 Stall current	<b>A</b>	75.6			
11 Stall torque	<b>Nm</b>	7.3			
12 Stack length	<b>mm</b>	80			
13 Maximum efficiency	<b>%</b>	82			
14 Ra	<b>Ω</b>	0.151			
15 RI	<b>mH</b>	0.221			
16 Speed constant	<b>rpm/V</b>	103			
17 Torque constant	<b>Nm/A</b>	0.10			
18 Speed torque gradient	<b>rpm/Nm</b>	691.7			
19 Rotor inertia	<b>Kgcm<sup>2</sup></b>	2.77 x 10 <sup>-4</sup>			
20 Weight	<b>Kg</b>	2.60			

Thermal data			Modular system				
21 Ambient temperature	<b>°C</b>	40	<b>Gearbox</b>	<b>+L mm</b>	<b>Brake</b>	<b>+L mm</b>	<b>Controller</b>
			GB12	110.0	1.5 Nm	28.2	SC 50/15
			PGx70	58.0 - 80.0			
					<b>Encoder</b>	<b>+L mm</b>	<b>Key</b>
					Incr. 5-pin	9.0	Standard combination
					Incr. 10-pin	9.0	Modular combination
					Diff. 10-pin	12.0	
							+L mm = approximate added length*

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

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