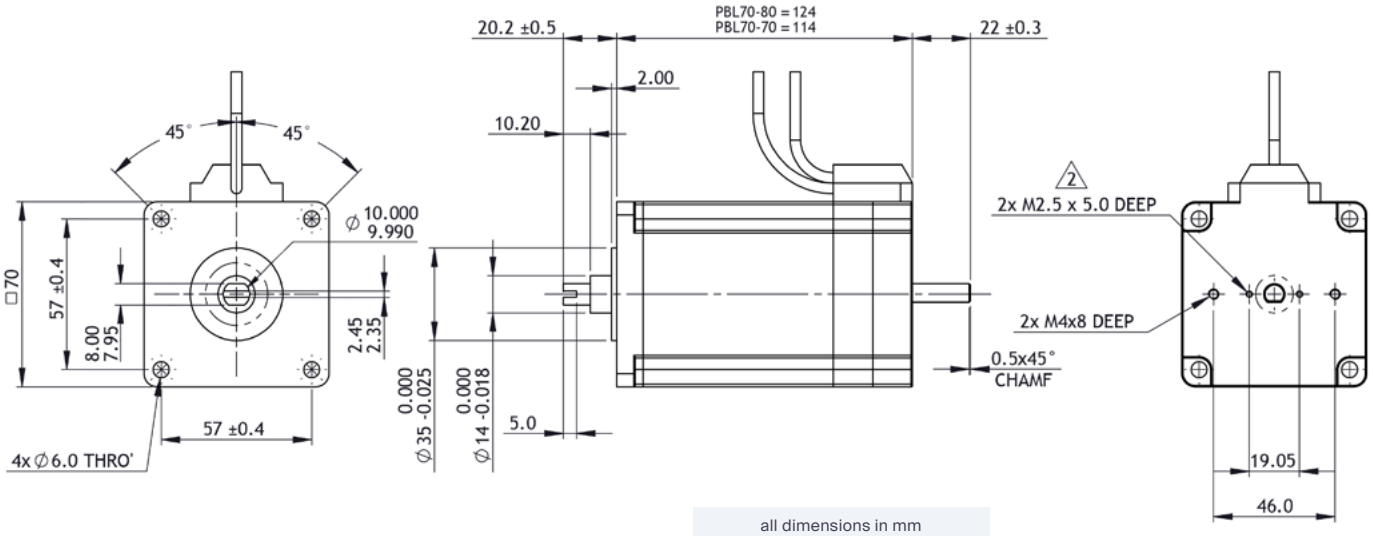
PBL70-70 BLDC motor

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		776622
2 Nominal power	W	363
3 Nominal voltage	V	48
4 No load speed	rpm	4857
5 No load current	A	1.4
6 Nominal speed	rpm	4500
7 Nominal continuous torque (S1)	Nm	0.77
8 Nominal continuous current (S1)	A	8.9
9 Max Intermittent torque (S2 - 15 minutes)	Nm	1.35
10 Stall current	A	68.2
11 Stall torque	Nm	6.9
12 Stack length	mm	70
13 Maximum efficiency	%	84
14 Ra	Ω	0.151
15 Rl	mH	0.283
16 Speed constant	rpm/V	102.2
17 Torque constant	Nm/A	0.103
18 Speed torque gradient	rpm/Nm	731.0
19 Rotor inertia	Kgcm²	2.39×10^{-4}
20 Weight	Kg	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	°C	40

Mechanical data		
22 Radial load [distance from flange]	N [mm]	350 [15]
23 Radial play	mm [@g]	0.025 [450]
24 Axial end play	mm [@g]	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
GB12	110.0
PGx70	58.0 - 80.0

Brake	+L mm
1.5 Nm	28.2

Encoder	+L mm
Incr. 5-pin	9.0
Incr. 10-pin	9.0
Diff. 10-pin	12.0

Controller
SC 50/15

Key
Standard combination
Modular combination

+L mm = approximate added length*

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

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additional information available on request