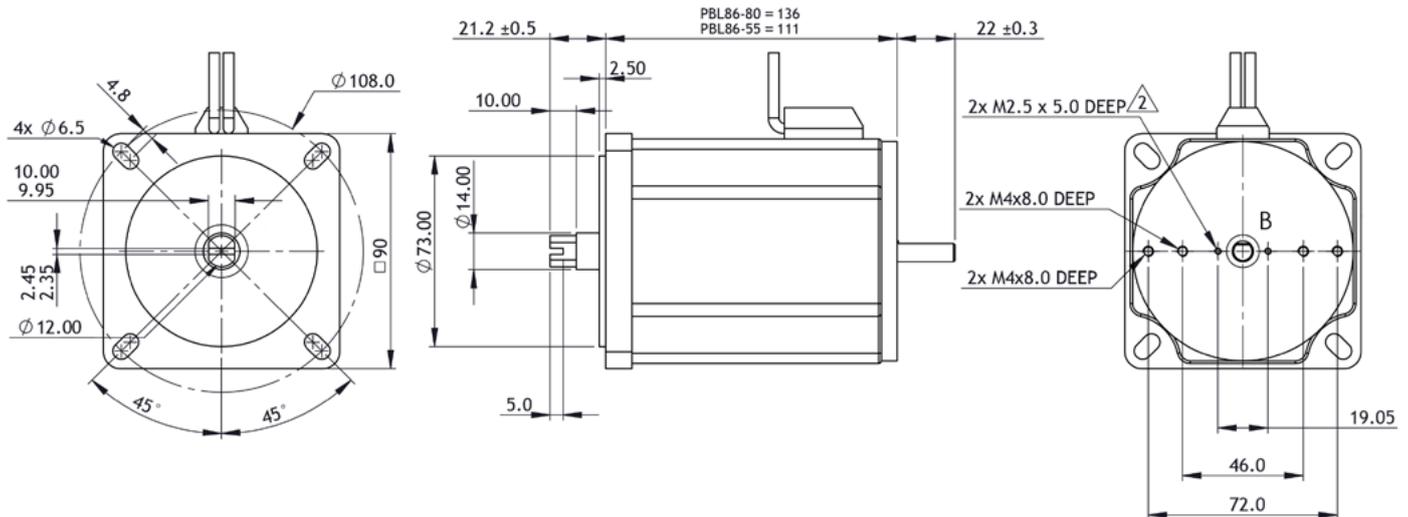


PBL86-80 BLDC motor

Ø86 mm frame // 80 mm stack

parvalux
by **maxon**



all dimensions in mm

Part number key

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

Technical data

1 Part number		776625
2 Nominal power	W	586
3 Nominal voltage	V	48
4 No load speed	rpm	4192
5 No load current	A	1.9
6 Nominal speed	rpm	4000
7 Nominal continuous torque (S1)	Nm	1.4
8 Nominal continuous current (S1)	A	14.4
9 Max Intermittent torque (S2 - 15 minutes)	Nm	2.45
10 Stall current	A	116
11 Stall torque	Nm	12.7
12 Stack length	mm	80
13 Maximum efficiency	%	83
14 Ra	Ω	0.057
15 RI	mH	161.3
16 Speed constant	rpm/V	879
17 Torque constant	Nm/A	0.11
18 Speed torque gradient	rpm/Nm	345.6
19 Rotor inertia	Kgm²	2.9 x 10 ⁻⁴
20 Weight	Kg	4.20

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	UL1569/14 AWG	Phase U
Yellow	UL1569/14 AWG	Phase V
Black	UL1569/14 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]	0.06 [450]
24 Axial end play	mm [@g]	0.08 [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	Controller
GB9	138	1.5 Nm	28.2	SC 50/15
GB12	110			
		Encoder	+L mm	
		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