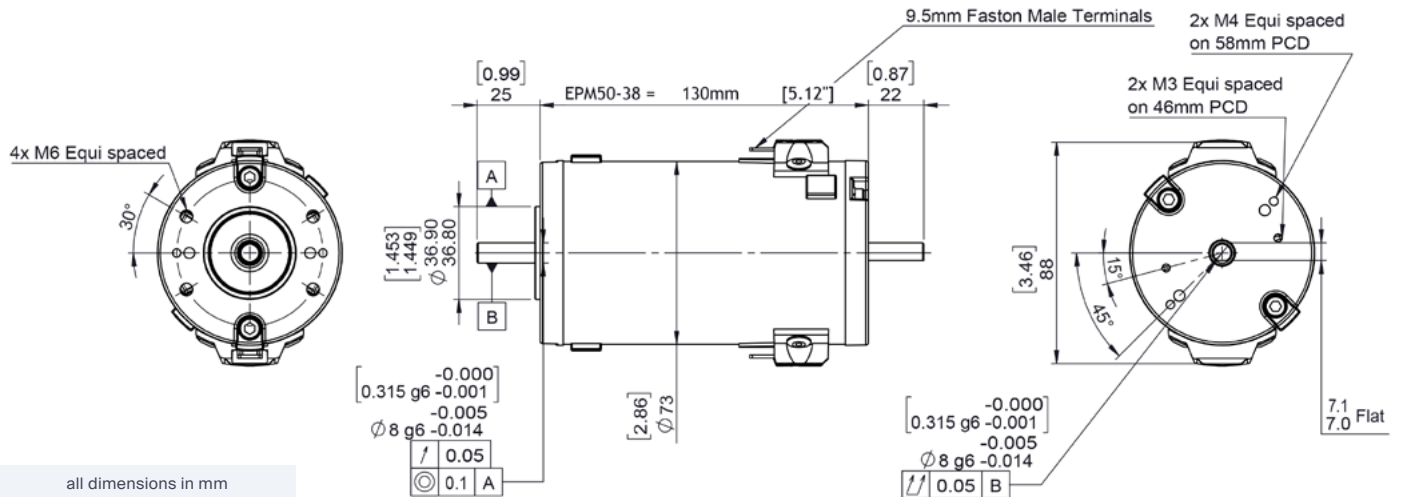


# EPM50-38 PMDC motor

Ø73 mm frame // 38 mm stack

**parvalux**  
by **maxon**



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

**Available on request:** Custom shaft length and diameter, shaft on both sides, special windings for specific voltages and speed, higher IP protection class, custom flanges and connectors

All products are built in accordance to performance tolerances from EN60034-1:2010. As continuous improvement, Parvalux periodically test their product range to ensure test results are as accurate as possible and are therefore subject to change. Please ensure you are using the latest datasheets found on our website

Technical data					
1 Part number		-	-	-	-
2 Nominal power	<b>W</b>	94	94	94	94
3 Nominal voltage	<b>V</b>	12	24	40	48
4 No load speed	<b>rpm</b>	3807	3827	3939	3920
5 No load current	<b>A</b>	1.4	0.57	0.35	0.29
6 Nominal speed	<b>rpm</b>	3000	3000	3000	3000
7 Nominal continuous torque (S1)	<b>Nm</b>	0.3	0.3	0.3	0.3
8 Nominal continuous current (S1)	<b>A</b>	11.0	5.5	3.4	2.8
9 Max. intermittent torque (S3)	<b>Nm</b>	0.50	0.50	0.50	0.50
10 Stall current	<b>A</b>	76	32	20	17
11 Stall torque	<b>Nm</b>	2.3	1.9	1.9	1.9
12 Stack length	<b>mm</b>	38	38	38	38
13 Maximum efficiency	<b>%</b>	78	77	77	77
14 Terminal resistance - phase to phase	<b>Ω</b>	0.159	0.760	1.990	2.900
15 Terminal inductance - phase to phase	<b>mH</b>	-	-	-	-
16 Speed constant	<b>rpm/V</b>	312	156	96	80
17 Torque constant	<b>Nm/A</b>	0.031	0.060	0.098	0.120
18 Speed torque gradient	<b>rpm/Nm</b>	1646	2041	2041	2041
19 Rotor inertia	<b>Kgcm<sup>2</sup></b>	1.57 x 10 <sup>-4</sup>	1.57 x 10 <sup>-4</sup>	1.57 x 10 <sup>-4</sup>	1.57 x 10 <sup>-4</sup>

Thermal data		Modular system	
20 Ambient temperature	<b>°C</b>	40	
<b>Mechanical data</b>		<b>Brake</b>	<b>Gearbox</b>
21 Radial load [distance from flange]	<b>N [mm]</b>	150 [15]	
<b>Other data</b>		1.5 Nm <b>+L mm</b> 28.2	GB4/41 <b>+L mm</b> 110
22 Number of poles		2.0 Nm <b>+L mm</b> 32.2	GB12 <b>+L mm</b> 110
23 Weight	<b>kg</b>		PGS62 <b>+L mm</b> 44 - 90
24 IP rating			PGS71 <b>+L mm</b> 49 - 99
25 Enclosure			
26 Insulation Class			
27 Reversible			

Modular system diagram showing the combination of Encoder, Brake, Gearbox, and Controller with their respective added lengths (+L mm). The diagram includes a schematic of the motor assembly and a table of component options.

**Encoder** **+L mm**  
Optical 9  
Magnetic 12

**Controller**  
SC 50/15  
ESCON  
EPOS

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