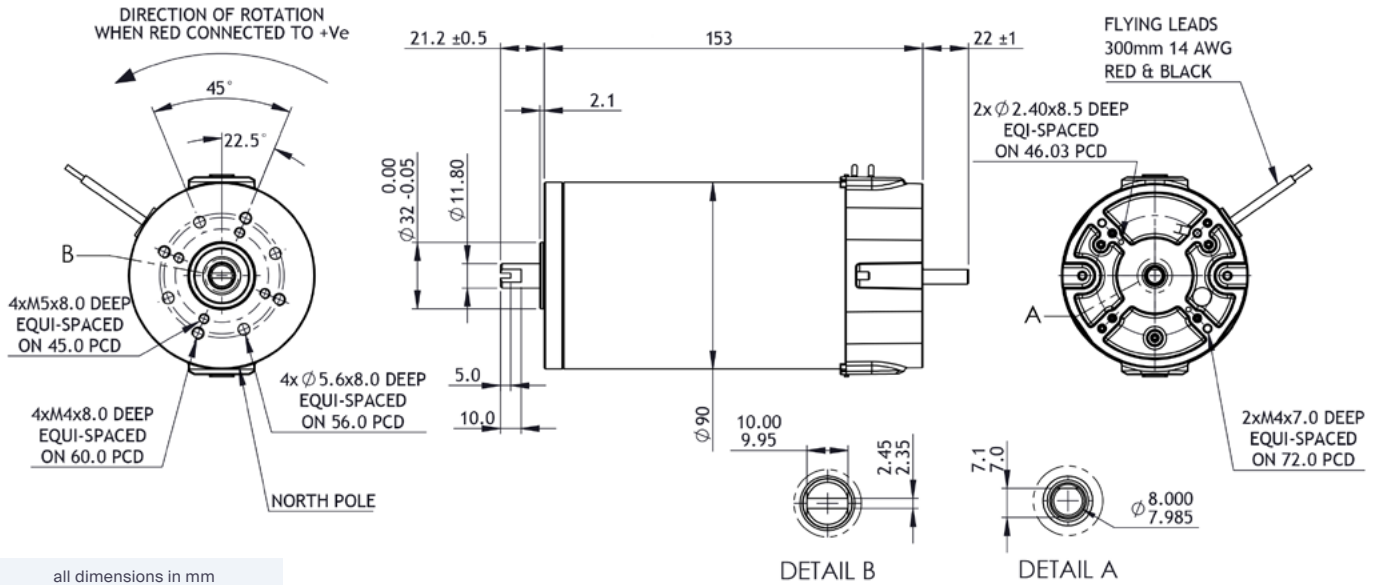


# BRx90-50 PMDC motor

Ø90 mm frame // 50 mm stack

**parvalux**  
by **maxon**



all dimensions in mm

### Part number key

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

### Technical data

		781102	781103	781104
1 Part number		781102	781103	781104
2 Nominal power	<b>W</b>	157	210	210
3 Nominal voltage	<b>V</b>	12	24	48
4 No load speed	<b>rpm</b>	3870	3423	3480
5 No load current	<b>A</b>	2.6	1.1	0.6
6 Nominal speed	<b>rpm</b>	3000	3000	3000
7 Nominal continuous torque (S1)	<b>Nm</b>	0.50	0.67	0.67
8 Nominal continuous current (S1)	<b>A</b>	25.5	10.5	5.7
9 Max. intermittent torque (S2 - 15 minutes)	<b>Nm</b>	1.17	1.17	1.17
10 Stall current	<b>A</b>	83.7	82.1	51.8
11 Stall torque	<b>Nm</b>	2.40	5.61	6.70
12 Stack length	<b>mm</b>	50	50	50
13 Maximum efficiency	<b>%</b>	67	81	80
14 Terminal resistance - phase to phase	<b>Ω</b>	0.112	0.294	0.580
15 Terminal inductance - phase to phase	<b>mH</b>	100.5	504.4	1987.0
16 Speed constant	<b>rpm/V</b>	314.9	139.0	69.1
17 Torque constant	<b>Nm/A</b>	0.030	0.069	0.130
18 Speed torque gradient	<b>rpm/Nm</b>	1509.7	590.0	511.0
19 Rotor inertia	<b>Kgcm<sup>2</sup></b>	6.57 x 10 <sup>-4</sup>	6.57 x 10 <sup>-4</sup>	6.57 x 10 <sup>-4</sup>

### Thermal data

20 Ambient temperature	<b>°C</b>	40
------------------------	-----------	----

### Mechanical data

21 Radial load [distance from flange]	<b>N [mm]</b>	200 [15]
---------------------------------------	---------------	----------

### Other data

22 Number of poles		2
23 Weight	<b>Kg</b>	3.60
24 IP rating		IP54
25 Enclosure		Enclosed
26 Insulation Class		F
27 Reversible		Yes

### 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			

### Compatible products key

Product name      Standard combination

Product name      Modular combination

+L mm = approximate added length\*

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