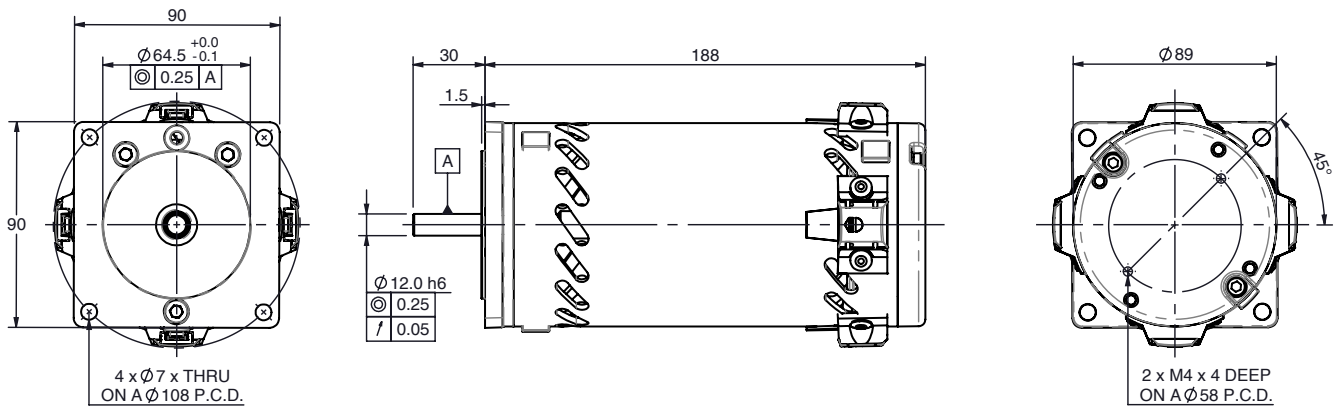


EPM63-100 Ventilated PMDC motor

Ø89 mm frame // 100 mm stack

parvalux
by **maxon**



all dimensions in mm

Part number key

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

Please see our customisation options page for details on the modifications available on our products. Advice and guidance on these options are available from your local sales engineer.

Technical data

1 Part number		-	-	-	-
2 Nominal power	W	471	471	471	471
3 Nominal voltage	V	12	24	40	48
4 No load speed	rpm	4771	3895	3819	3895
5 No load current	A	5.20	1.90	1.10	0.94
6 Nominal speed	rpm	3000	3000	3000	3000
7 Nominal continuous torque (S1)	Nm	1.5	1.5	1.5	1.5
8 Nominal continuous current (S1)	A	67.0	27.5	16.2	13.7
9 Max. intermittent torque (S2 - 15 minutes)	Nm	2.00	2.40	2.40	2.40
10 Stall current	A	194	134	77	67
11 Stall torque	Nm	4.6	7.7	7.5	7.7
12 Stack length	mm	100	100	100	100
13 Maximum efficiency	%	67	78	78	78
14 Terminal resistance	Ω	0.06	0.18	0.52	0.72
15 Terminal inductance	mH	-	-	-	-
16 Speed constant	rpm/V	393	158	93	79
17 Torque constant	Nm/A	0.024	0.060	0.100	0.120
18 Speed torque gradient	rpm/Nm	1041	509	509	509
19 Rotor inertia	gcm²	9.64 x 10 ⁻⁴	9.64 x 10 ⁻⁴	9.64 x 10 ⁻⁴	9.64 x 10 ⁻⁴

Thermal data

20 Ambient temperature	°C	40
------------------------	-----------	----

Mechanical data

21 Radial load [distance from flange]	N [mm]	200 [15]
---------------------------------------	---------------	----------

Other data

22 Number of poles		4
23 Weight	Kg	4.60
24 IP rating		IP21
25 Enclosure		Ventilated
26 Insulation Class		F
27 Reversible		Yes

Compatible products

Gearbox	Page #	Brake	Page #	Controller	Page #
GB80	224	1.5 Nm	258	SC 50/15	262
LIW	242	2.0 Nm	259	EPOS	265
PGx70	250	4.0 Nm	260	ESCON	274
GB12	232	Power-On	261		
GB9	234				
LIS	244	Encoder	Page #		
LWS	236	Incr. 5-pin	254		
GB65	238	Incr. 10-pin	254		
		Diff. 10-pin	255		
		Magnetic	256		

Key

Standard combination

Modular combination

EPM63-100 Ventilated combinations

parvalux

by maxon

Quickview - combination drawing and technical data

Combination drawing	Technical data							
	Gear material ¹	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio ²	:1	4	30	72	-	-	-
	Speed rpm	750.0	100.0	41.7	-	-	-	
	Nominal torque Nm	5.1	8.0	5.0	-	-	-	
	Intermittent torque Nm	8.2	13.0	8.0	-	-	-	
	Gear material ¹	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio ²	:1	36	400	1200	36	400	1200
	Speed rpm	83.3	7.5	2.5	83.3	7.5	2.5	
	Nominal torque Nm	28.0	28.0	28.0	40.0	45.0	45.0	
	Intermittent torque Nm	28.0	28.0	28.0	45.0	45.0	45.0	
	Gear material ¹	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio [stages] ²	:1	-	-	-	3.9 [1]	21 [2]	44 [2]
	Speed rpm	-	-	-	-	769.2	142.9	68.2
	Nominal torque Nm	-	-	-	-	5.6	29.0	30.0
	Intermittent torque Nm	-	-	-	-	8.9	37.5	37.5
	Gear material ¹	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio ²	:1	12.5	30	75	12.5	30	75
	Speed rpm	240.0	100.0	40.0	240.0	100.0	40.0	
	Nominal torque Nm	15.9	20.0	18.0	15.0	29.3	27.0	
	Intermittent torque Nm	25.5	32.0	29.0	24.0	46.8	43.0	
	Gear material ¹	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio ²	:1	12.5	30	75	12.5	30	75
	Speed rpm	240.0	100.0	40.0	240.0	100.0	40.0	
	Nominal torque Nm	16.9	33.8	40.0	15.9	31.5	50.6	
	Intermittent torque Nm	27.0	54.0	70.0	25.5	50.4	81.0	
	Gear material ¹	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio ²	:1	6	50	115	-	-	-
	Speed rpm	500.0	60.0	26.1	-	-	-	
	Nominal torque Nm	6.9	51.0	74.0	-	-	-	
	Intermittent torque Nm	11.1	51.0	100.0	-	-	-	
	Gear material ¹	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio ²	:1	48	672	3450	-	-	-
	Speed rpm	62.5	4.5	0.9	-	-	-	
	Nominal torque Nm	45.0	100.0	100.0	-	-	-	
	Intermittent torque Nm	45.0	100.0	100.0	-	-	-	
	Gear material ¹	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio ²	:1	-	-	-	20	80	160
	Speed rpm	-	-	-	-	150.0	37.5	18.8
	Nominal torque Nm	-	-	-	-	24.3	84.0	103.2
	Intermittent torque Nm	-	-	-	-	38.9	134.4	165.1

Key

Standard combination / standard gear ratio

Modular combination / modular gear ratio

Notes

¹ Comp. = Composite gears

² Full gear ratio options displayed on individual gearbox datasheets

- Technical data displayed above calculated based on **EPM63-100 Ventilated 48V 3000 rpm** motor. Intermittent torque displayed based on S2 - 15 minute duty cycle.
- Simplified drawings displayed above show overall envelope size of the combination. Please see individual motor and gearbox datasheets for detailed technical drawings.