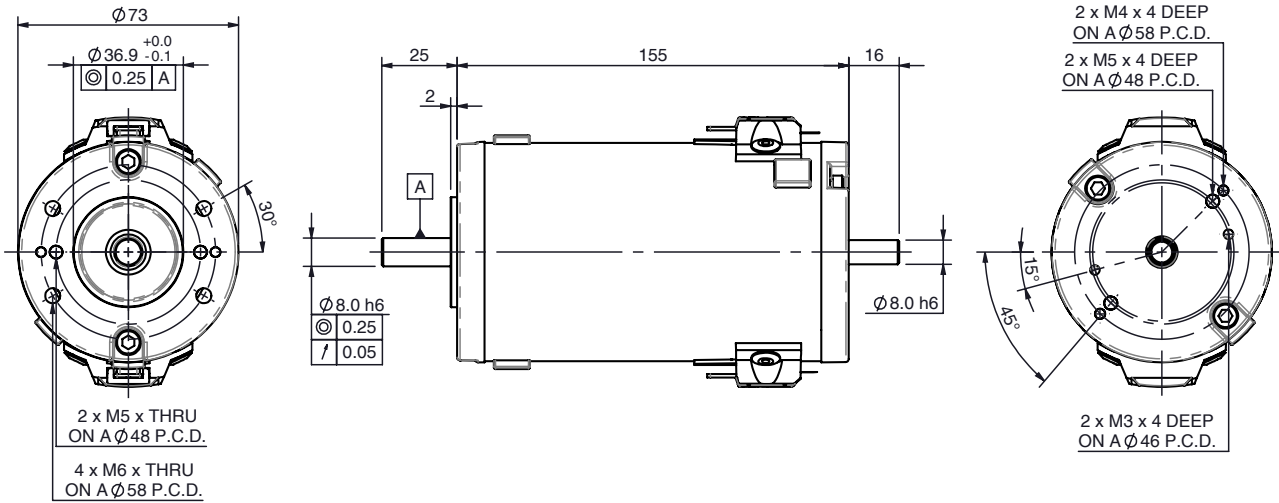


EPM50-63 PMDC motor

Ø73 mm frame // 63 mm stack

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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	151	151	151	151
3 Nominal voltage	V	12	24	40	48
4 No load speed	rpm	4119	3912	3650	3598
5 No load current	A	1.30	0.50	0.27	0.22
6 Nominal speed	rpm	3000	3000	3000	3000
7 Nominal continuous torque (S1)	Nm	0.48	0.48	0.48	0.48
8 Nominal continuous current (S1)	A	18.0	8.4	4.9	4.1
9 Max. intermittent torque (S2 - 15 minutes)	Nm	0.80	0.80	0.80	0.80
10 Stall current	A	79	42	32	26
11 Stall torque	Nm	2.3	2.8	3.3	3.2
12 Stack length	mm	63	63	63	63
13 Maximum efficiency	%	80	80	81	81
14 Terminal resistance	Ω	0.15	0.57	1.25	1.86
15 Terminal inductance	mH	-	-	-	-
16 Speed constant	rpm/V	330	178	90	74
17 Torque constant	Nm/A	0.03	0.06	0.10	0.13
18 Speed torque gradient	rpm/Nm	1835	1412	1121	1120
19 Rotor inertia	Kgcm²	2.48×10^{-4}	2.48×10^{-4}	2.48×10^{-4}	2.48×10^{-4}

Thermal data

20 Ambient temperature	$^\circ\text{C}$	40
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Mechanical data

21 Radial load [distance from flange]	N [mm]	150 [15]
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Other data

22 Number of poles		2
23 Weight	Kg	2.15
24 IP rating		IP44
25 Enclosure		Enclosed
26 Insulation Class		F
27 Reversible		Yes

Compatible products

Gearbox	Page #	Brake	Page #	Controller	Page #
M Box	222	1.5 Nm	258	SC 50/15	262
GB80	224	2.0 Nm	259	EPOS	265
PGx70	250	Power-On	261	ESCON	274
GB12	232				

Encoder	Page #
Incr. 5-pin	254
Incr. 10-pin	254
Diff. 10-pin	255
Magnetic	256

Key

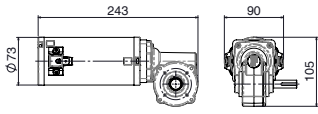
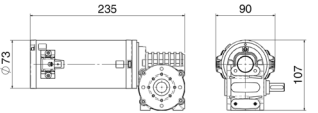
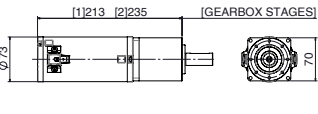
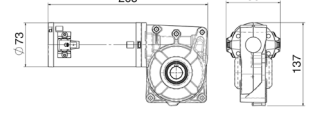
Standard combination

Modular combination

EPM50-63 combinations

Quickview - combination drawing and technical data

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Combination drawing	Technical data							
EPM50-63-M-Box 	Gear material ¹	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio ²	:1	4	30	72	4	30	72
	Speed	rpm	750.0	100.0	41.7	750.0	100.0	41.7
	Nominal torque	Nm	1.6	8.0	5.0	1.4	8.8	8.0
	Intermittent torque	Nm	2.7	13.0	8.0	2.4	14.6	12.0
EPM50-63-GB80 	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	1.6	8.0	5.0	-	-	-
	Intermittent torque	Nm	2.7	13.0	8.0	-	-	-
EPM50-63-PGx70 	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	-	-	-	1.8	9.3	19.4
	Intermittent torque	Nm	-	-	-	3.0	15.5	32.4
EPM50-63-GB12 	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	5.1	10.4	18.0	4.8	9.4	16.2
	Intermittent torque	Nm	8.5	17.3	29.0	8.0	15.6	27.0

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 **EPM50-63 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.