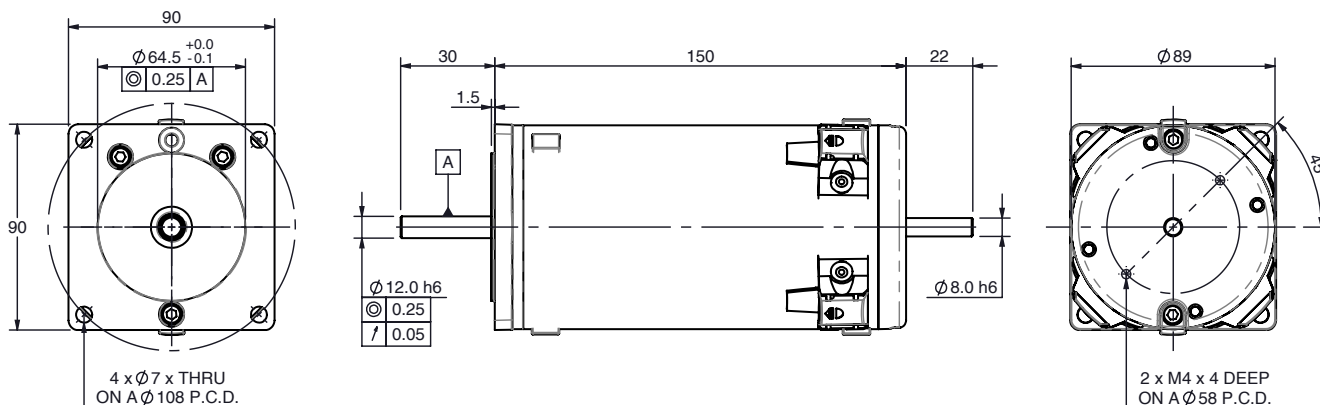


EPM63-50 PMDC motor

Ø89 mm frame // 50 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	220	220	220	220
3 Nominal voltage	V	12	24	40	48
4 No load speed	rpm	3899	3992	3881	3854
5 No load current	A	4.70	2.60	1.50	1.24
6 Nominal speed	rpm	3000	3000	3000	3000
7 Nominal continuous torque (S1)	Nm	0.7	0.7	0.7	0.7
8 Nominal continuous current (S1)	A	28.4	14.5	8.4	7.0
9 Max. intermittent torque (S2 - 15 minutes)	Nm	1.17	1.17	1.17	1.17
10 Stall current	A	115	83	47	39
11 Stall torque	Nm	3.3	4.8	4.7	4.6
12 Stack length	mm	50	50	50	50
13 Maximum efficiency	%	67	70	70	70
14 Terminal resistance	Ω	0.10	0.29	0.85	1.24
15 Terminal inductance	mH	-	-	-	-
16 Speed constant	rpm/V	320	159	93	77
17 Torque constant	Nm/A	0.03	0.06	0.10	0.12
18 Speed torque gradient	rpm/Nm	1200	831	831	831
19 Rotor inertia	gcm²	6.13 x 10 ⁻⁴	6.13 x 10 ⁻⁴	6.13 x 10 ⁻⁴	6.13 x 10 ⁻⁴

Thermal data

20 Ambient temperature	°C	40
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Mechanical data

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

22 Number of poles		4
23 Weight	Kg	3.00
24 IP rating		IP44
25 Enclosure		Enclosed
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				
LWS	236				
GB65	238				
		Encoder	Page #		
		Incr. 5-pin	254		
		Incr. 10-pin	254		
		Diff. 10-pin	255		
		Magnetic	256		

Key

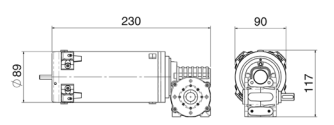
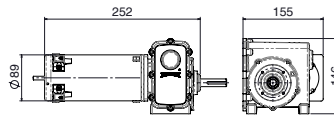
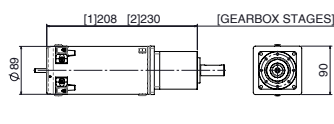
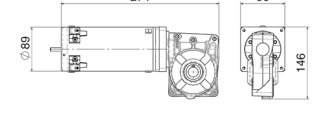
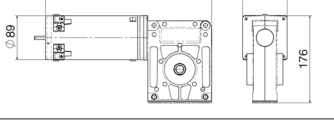
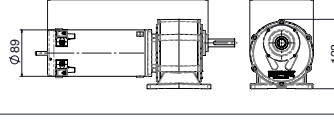
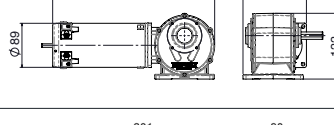
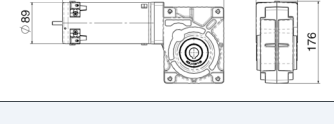
Standard combination

Modular combination

EPM63-50 combinations

Quickview - combination drawing and technical data

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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	2.4	8.0	5.0	-	-	-
	Intermittent torque	Nm	4.0	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	18.6	28.0	28.0	18.6	45.0	45.0
	Intermittent torque	Nm	28.0	28.0	28.0	31.2	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	-	-	-	2.6	13.5	28.3
	Intermittent torque	Nm	-	-	-	4.3	22.6	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	7.4	15.1	18.0	7.0	13.7	23.6
	Intermittent torque	Nm	12.4	25.3	29.0	11.7	22.8	39.5
	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	7.9	15.8	26.3	7.4	14.7	23.6
	Intermittent torque	Nm	13.2	26.3	43.9	12.4	24.6	39.5
	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	3.2	27.0	62.0	-	-	-
	Intermittent torque	Nm	5.4	45.0	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	22.8	100.0	100.0	-	-	-
	Intermittent torque	Nm	38.2	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	-	-	-	11.3	39.2	48.2
	Intermittent torque	Nm	-	-	-	19.0	65.5	80.5

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 **EPM63-50 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.