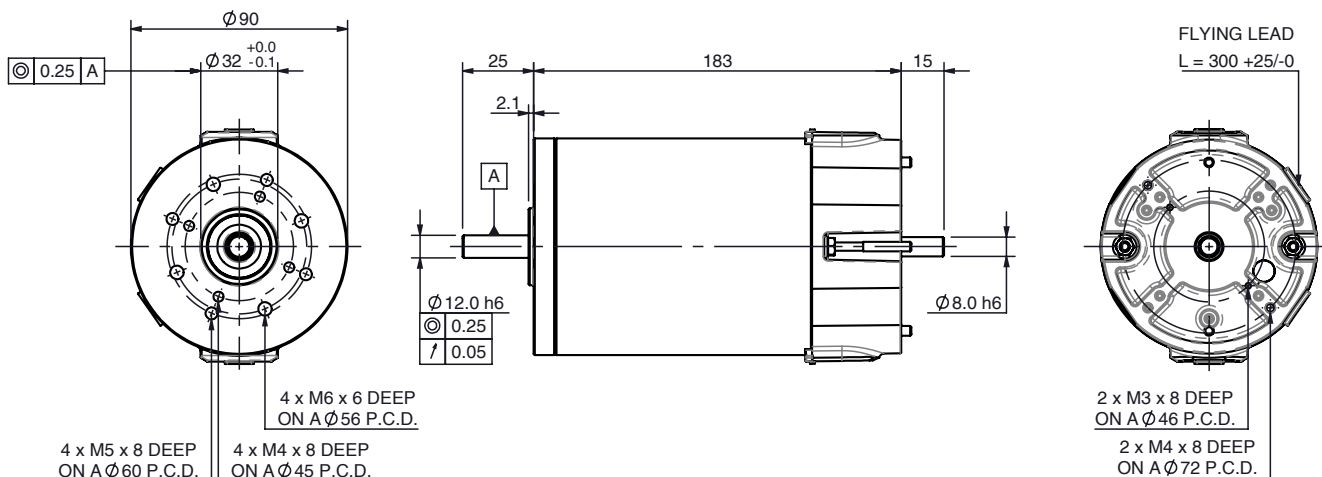


BRx90-75 PMDC motor

Ø90 mm frame // 75 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

		781106	781107	781108
1 Part number		781106	781107	781108
2 Nominal power	W	236	283	283
3 Nominal voltage	V	12	24	48
4 No load speed	rpm	3750	3417	3376
5 No load current	A	3.4	1.2	0.6
6 Nominal speed	rpm	2500	3000	3000
7 Nominal continuous torque (S1)	Nm	0.9	0.9	0.9
8 Nominal continuous current (S1)	A	33.2	14.5	7.3
9 Max. intermittent torque (S2 - 15 minutes)	Nm	1.50	1.50	1.50
10 Stall current	A	83.5	93.0	58.0
11 Stall torque	Nm	2.38	6.14	7.71
12 Stack length	mm	75	75	75
13 Maximum efficiency	%	69	79	80
14 Terminal resistance	Ω	0.116	0.312	0.426
15 Terminal inductance	mH	78.3	422.3	1620.0
16 Speed constant	rpm/V	311.3	135.9	68.0
17 Torque constant	Nm/A	0.03	0.07	0.13
18 Speed torque gradient	rpm/Nm	16674	5471	433.0
19 Rotor inertia	gcm²	8.65×10^{-4}	8.65×10^{-4}	8.65×10^{-4}

Thermal data

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

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

22 Number of poles		2
23 Weight	Kg	4.00
24 IP rating		IP54
25 Enclosure		Enclosed
26 Insulation Class		F
27 Reversible		Yes

Compatible products

Gearbox	Page #	Brake	Page #	Controller	Page #
GB80	224	1.5 Nm	80	SC 50/15	82
PGx70	250	2.0 Nm	259	EPOS	265
GB12	68	4.0 Nm	260	ESCON	274
GB9	70	Power-On	261		
GB65	71				

Encoder	Page #
Incr. 5-pin	78
Incr. 10-pin	78
Diff. 10-pin	79
Magnetic	256

Key

Standard combination
Modular combination

BRx90-75 combinations

Quickview - combination drawing and technical data

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Combination drawing		Technical data							
BRx90-75-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	3.1	8.0	5.0	-	-	-	
		Intermittent torque Nm	5.1	13.0	8.0	-	-	-	
BRx90-75-PGx72		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	-	-	-	3.3	17.4	30.0	
		Intermittent torque Nm	-	-	-	5.6	29.0	37.5	
BRx90-75-GB12		Gear material ¹	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
		Gear ratio ²	:1	15	30	60	15	30	60
		Speed rpm	200.0	100.0	50.0	200.0	100.0	50.0	
		Nominal torque Nm	11.2	19.4	20.0	10.1	17.6	27.0	
		Intermittent torque Nm	18.7	32.0	32.0	16.9	29.3	45.0	
BRx90-75-GB9		Gear material ¹	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
		Gear ratio ²	:1	15	30	60	15	30	60
		Speed rpm	200.0	100.0	50.0	200.0	100.0	50.0	
		Nominal torque Nm	11.5	20.3	35.1	10.8	18.9	29.7	
		Intermittent torque Nm	19.1	33.8	58.5	18.0	31.5	49.5	
BRx90-75-GB65		Gear material ¹	Bronze	Bronze	Bronze	Bronze	Bronze	-	
		Gear ratio ²	:1	20	40	80	120	160	-
		Speed rpm	150.0	75.0	37.5	25.0	18.8	-	
		Nominal torque Nm	14.6	27.4	50.4	64.8	61.9	-	
		Intermittent torque Nm	24.3	45.6	84.0	108.0	103.2	-	

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 **BRx90-75 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.