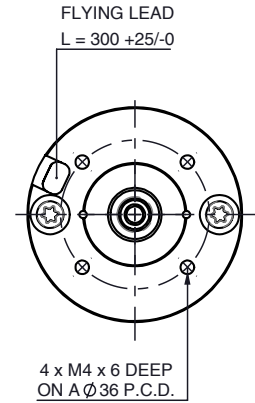
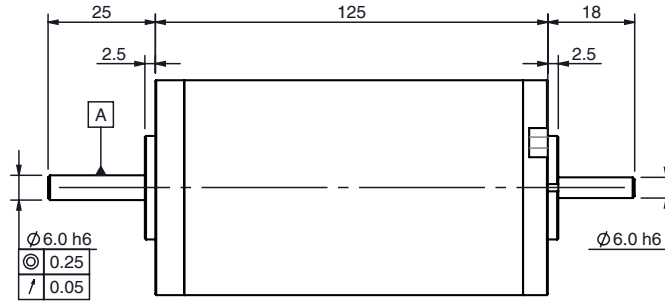
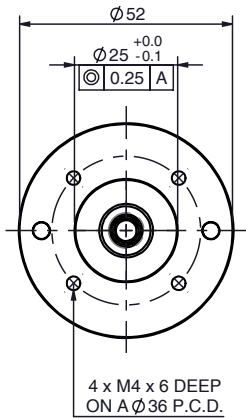


# BRx52-58 PMDC motor

Ø52 mm frame // 58 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		787111	787113	787114
2 Nominal power	<b>W</b>	48	69	69
3 Nominal voltage	<b>V</b>	12	24	48
4 No load speed	<b>rpm</b>	3513	3840	3838
5 No load current	<b>A</b>	0.60	0.40	0.16
6 Nominal speed	<b>rpm</b>	2850	3000	3000
7 Nominal continuous torque (S1)	<b>Nm</b>	0.16	0.22	0.22
8 Nominal continuous current (S1)	<b>A</b>	5.5	3.9	2.2
9 Max. intermittent torque (S2 - 15 minutes)	<b>Nm</b>	0.35	0.35	0.35
10 Stall current	<b>A</b>	23.6	19.0	9.5
11 Stall torque	<b>Nm</b>	0.7	1.1	1.0
12 Stack length	<b>mm</b>	58	58	58
13 Maximum efficiency	<b>%</b>	73	80	80
14 Terminal resistance	<b>Ω</b>	0.570	0.937	3.420
15 Terminal inductance	<b>mH</b>	0.385	1.272	5.217
16 Speed constant	<b>rpm/V</b>	300.4	161.8	80.8
17 Torque constant	<b>Nm/A</b>	0.031	0.056	0.100
18 Speed torque gradient	<b>rpm/Nm</b>	5166	3805	4411
19 Rotor inertia	<b>gcm<sup>2</sup></b>	5.7 x 10 <sup>-6</sup>	5.7 x 10 <sup>-6</sup>	5.7 x 10 <sup>-6</sup>

## Thermal data

20 Ambient temperature	<b>°C</b>	40
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## Mechanical data

21 Radial load [distance from flange]	<b>N [mm]</b>	90 [15]
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## Other data

22 Number of poles		2
23 Weight	<b>Kg</b>	1.16
24 IP rating		IP54
25 Enclosure		Enclosed
26 Insulation Class		F
27 Reversible		Yes

## Compatible products

Gearbox	Page #	Brake	Page #	Controller	Page #
S Box	216	1.5 Nm	258	SC 50/15	82
GB28	218			EPOS	265
GB58	219			ESCON	274
GB80	67				
GB36	231	<b>Encoder</b>	<b>Page #</b>		
PGx52	249	Incr. 5-pin	78		
		Incr. 10-pin	78		
		Diff. 10-pin	79		
		Magnetic	256		

## Key

Standard combination

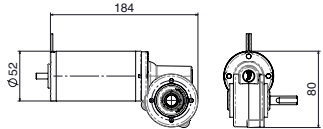
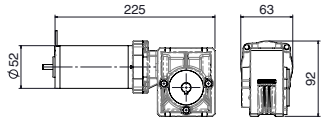
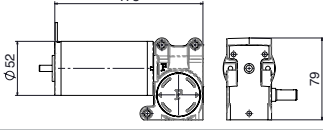
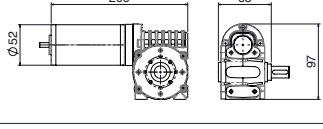
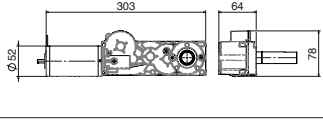
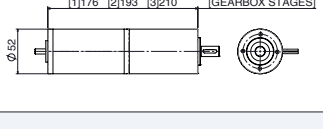
Modular combination

# BRx52-58 combinations

Quickview - combination drawing and technical data

parvalux

by maxon

Combination drawing	Technical data							
BRx52-58-S-Box 	Gear material <sup>1</sup>	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio <sup>2</sup>	:1	4	30	70	4	30	70
	Speed	<b>rpm</b>	750.0	100.0	42.9	750.0	100.0	42.9
	Nominal torque	<b>Nm</b>	0.7	3.0	2.0	0.6	3.8	3.0
	Intermittent torque	<b>Nm</b>	1.1	4.8	3.2	1.0	6.0	4.8
BRx52-58-GB28 	Gear material <sup>1</sup>	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio <sup>2</sup>	:1	-	-	-	15	30	60
	Speed	<b>rpm</b>	-	-	-	200.0	100.0	50.0
	Nominal torque	<b>Nm</b>	-	-	-	2.5	4.3	5.0
	Intermittent torque	<b>Nm</b>	-	-	-	3.9	6.8	8.0
BRx52-58-GB88 	Gear material <sup>1</sup>	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio <sup>2</sup>	:1	4	15	25	-	-	-
	Speed	<b>rpm</b>	750.0	200.0	120.0	-	-	-
	Nominal torque	<b>Nm</b>	0.7	2.5	3.7	-	-	-
	Intermittent torque	<b>Nm</b>	1.2	3.9	6.0	-	-	-
BRx52-58-GB90 	Gear material <sup>1</sup>	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio <sup>2</sup>	:1	15	30	60	-	-	-
	Speed	<b>rpm</b>	200.0	100.0	50.0	-	-	-
	Nominal torque	<b>Nm</b>	2.5	4.6	6.0	-	-	-
	Intermittent torque	<b>Nm</b>	4.0	7.4	10.0	-	-	-
BRx52-58-GB36 	Gear material <sup>1</sup>	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio <sup>2</sup>	:1	24	120	1400	-	-	-
	Speed	<b>rpm</b>	125.0	25.0	2.1	-	-	-
	Nominal torque	<b>Nm</b>	4.0	19.5	45.0	-	-	-
	Intermittent torque	<b>Nm</b>	6.4	22.0	45.0	-	-	-
BRx52-58-PGX52 	Gear material <sup>1</sup>	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
	Gear ratio [stages] <sup>2</sup>	:1	-	-	-	3.9 [1]	44 [2]	172 [3]
	Speed	<b>rpm</b>	-	-	-	769.2	68.2	17.4
	Nominal torque	<b>Nm</b>	-	-	-	0.8	8.9	30.0
	Intermittent torque	<b>Nm</b>	-	-	-	1.3	14.2	45.0

## Key

Standard combination / standard gear ratio

Modular combination / modular gear ratio

## Notes

<sup>1</sup> Comp. = Composite gears

<sup>2</sup> Full gear ratio options displayed on individual gearbox datasheets

→ Technical data displayed above calculated based on **BRx52-58 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.