

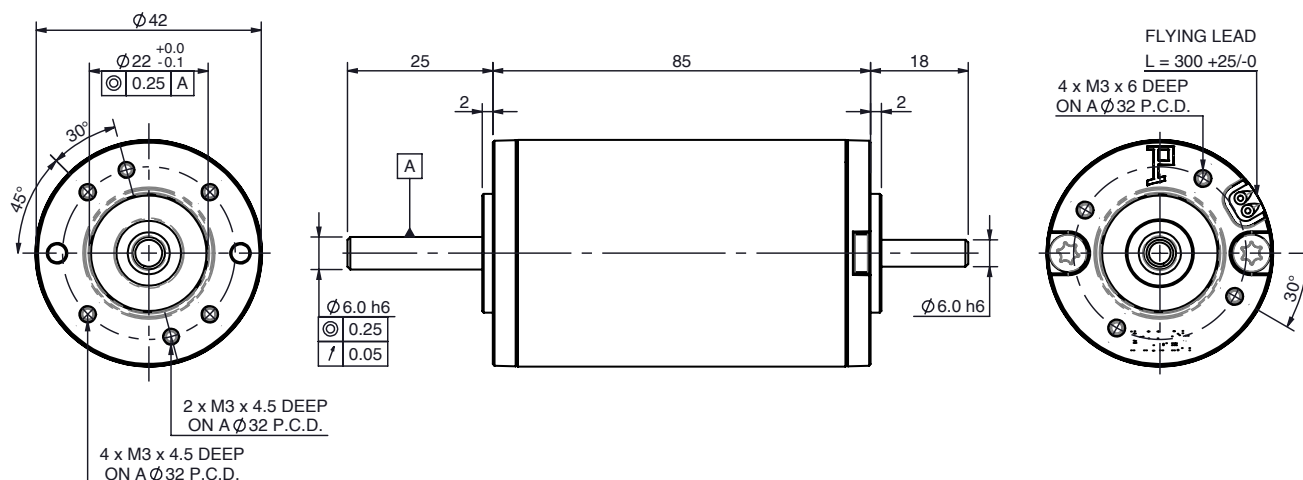
BRx42-40

PMDC motor

Ø42 mm frame // 34 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		781079	781080	781081
2 Nominal power	W	18	18	18
3 Nominal voltage	V	12	24	48
4 No load speed	rpm	3925	3931	4054
5 No load current	A	0.20	0.10	0.08
6 Nominal speed	rpm	3000	3000	3000
7 Nominal continuous torque (S1)	Nm	0.057	0.057	0.057
8 Nominal continuous current (S1)	A	2.20	1.06	0.51
9 Max. intermittent torque (S2 - 15 minutes)	Nm	0.09	0.09	0.09
10 Stall current	A	8.50	4.79	1.92
11 Stall torque	Nm	0.20	0.26	0.27
12 Stack length	mm	34	34	34
13 Maximum efficiency	%	0.74	0.76	0.85
14 Terminal resistance	Ω	1.51	4.35	17.25
15 Terminal inductance	mH	1.01	4.39	18.29
16 Speed constant	rpm/V	329	164	87.5
17 Torque constant	Nm/A	0.03	0.06	0.12
18 Speed torque gradient	rpm/Nm	17670	14935	18613
19 Rotor inertia	gcm ²	1.4 x 10 ⁻⁵	1.4 x 10 ⁻⁵	1.4 x 10 ⁻⁵

Thermal data

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

Mechanical data

21 Radial load [distance from flange]	N [mm]	60 [15]
---------------------------------------	--------	---------

Other data

22 Number of poles		2
23 Weight	Kg	0.52
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	On request	-	SC 50/15	82
GB58	219			EPOS	265
PGx42	248			ESCON	274
Encoder	Page #				
Incr. 5-pin	78				
Incr. 10-pin	78				
Diff. 10-pin	79				

Key

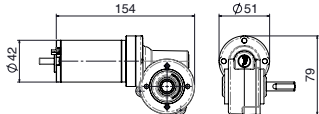
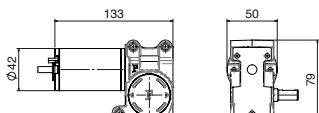
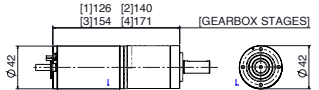
Standard combination

Modular combination

BRx42-40 combinations

Quickview - combination drawing and technical data

parvalux
by **maxon**

Combination drawing		Technical data							
BRx42-40-S-Box		Gear material ¹	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
		Gear ratio ²	:1	4	30	70	4	30	70
		Speed	rpm	750.0	100.0	42.9	750.0	100.0	42.9
		Nominal torque	Nm	0.2	1.1	1.6	0.2	1.0	1.4
		Intermittent torque	Nm	0.3	1.8	2.5	0.3	1.5	2.2
BRx42-40-GB58		Gear material ¹	Comp.	Comp.	Comp.	Bronze	Bronze	Bronze	
		Gear ratio ²	:1	4	15	25	-	-	-
		Speed	rpm	750.0	200.0	120.0	-	-	-
		Nominal torque	Nm	0.2	0.6	1.0	-	-	-
		Intermittent torque	Nm	0.3	1.0	1.5	-	-	-
BRx42-40-PGx42		Gear material ¹	Bronze	Bronze	Bronze	Bronze	Bronze		
		Gear ratio [stages] ²	:1	4.3 [1]	19 [2]	66 [3]	150 [4]	353 [4]	
		Speed	rpm	697.7	157.9	45.5	20.0	8.5	
		Nominal torque	Nm	0.2	0.9	2.7	5.5	11.3	
		Intermittent torque	Nm	0.3	1.4	4.3	8.6	16.9	

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 **BRx42-40 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.