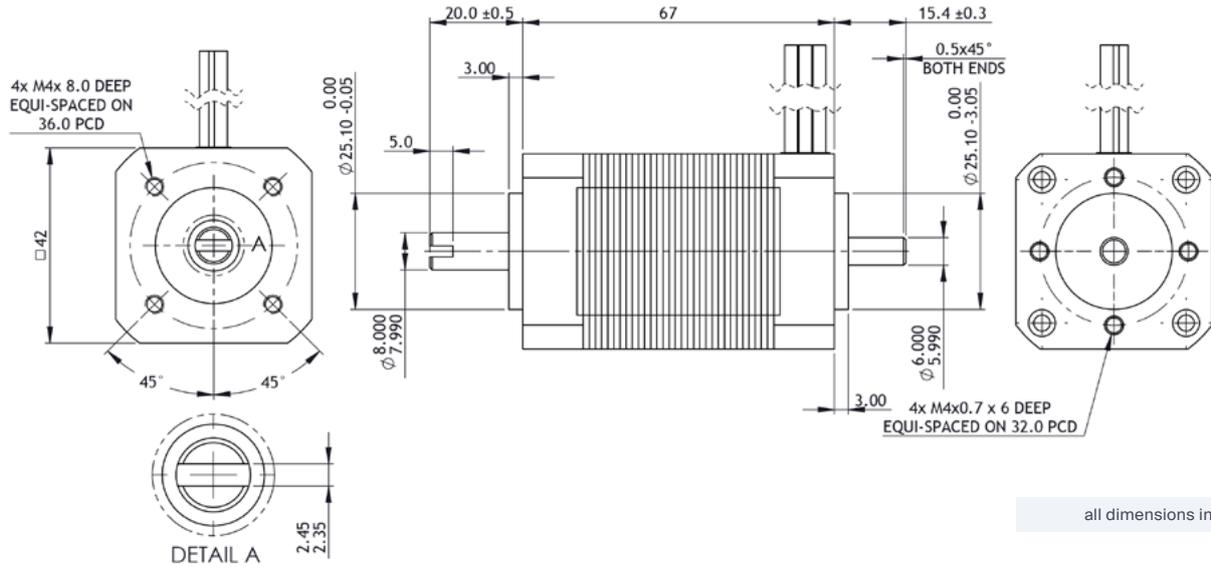


PBL42-35 BLDC motor

Ø42 mm frame // 35 mm stack

parvalux
by **maxon**



Part number key									
Modular	#####								
Standard	#####								
Calculated data	#####								
Technical data				Connection details					
1 Part number		776616	776617	Lead colour	Lead gauge	Function			
2 Nominal power	W	42	42	Red	UL1569/26 AWG	VCC			
3 Nominal voltage	V	24	48	Black	UL1569/26 AWG	GND			
4 No load speed	rpm	5835	6001	Yellow	UL1569/26 AWG	Hall A			
5 No load current	A	0.4	0.3	Green	UL1569/26 AWG	Hall B			
6 Nominal speed	rpm	4000	4000	Blue	UL1569/26 AWG	Hall C			
7 Nominal continuous torque (S1)	Nm	0.1	0.1	Yellow	UL1569/20 AWG	Phase U			
8 Nominal continuous current (S1)	A	2.6	1.3	Green	UL1569/20 AWG	Phase V			
9 Max Intermittent torque (S2 - 15 minutes)	Nm	0.15	0.15	Blue	UL1569/20 AWG	Phase W			
10 Stall current	A	9.6	5.0						
11 Stall torque	Nm	0.4	0.4						
12 Stack length	mm	35	35						
13 Maximum efficiency	%	77	75						
14 Ra	Ω	0.87	3.35						
15 RI	mH	1298	5415						
16 Speed constant	rpm/V	251.7	132.2						
17 Torque constant	Nm/A	0.043	0.093						
18 Speed torque gradient	rpm/Nm	14157	13361						
19 Rotor inertia	Kgcm ²	5.5 x 10 ⁻⁶	5.5 x 10 ⁻⁶						
20 Weight	Kg	0.45	0.45						
Thermal data		Modular system							
22 Ambient temperature	°C	40		Gearbox	+L mm	Brake	+L mm	Encoder	+L mm
Mechanical data		Gearbox	+L mm	S Box	59.0	1.5 Nm	28.2	Incr. 5-pin	9.0
23 Radial load [distance from flange]	N [mm]	SWS	110.0	2.0 Nm	32.4	Incr. 10-pin	9.0		
24 Radial play	mm [g]	SIS	72.0	4.0 Nm	27.7	Diff. 10-pin	12.0		
25 Axial end play	mm [g]	SIW	82.0	Power-on	26.4				
Other data		GB28	88.0						
26 Number of poles		PGx42	37.0 - 81.0	Controller		Key			
27 Winding type				SC 50/15		Standard combination			
28 Hall effect angle (electrical angle)	°			ESCON		Modular combination			
29 IP Rating				EPOS					
30 Enclosure									
31 Insulation Class									

*additional length may also be required for mounting flange between components