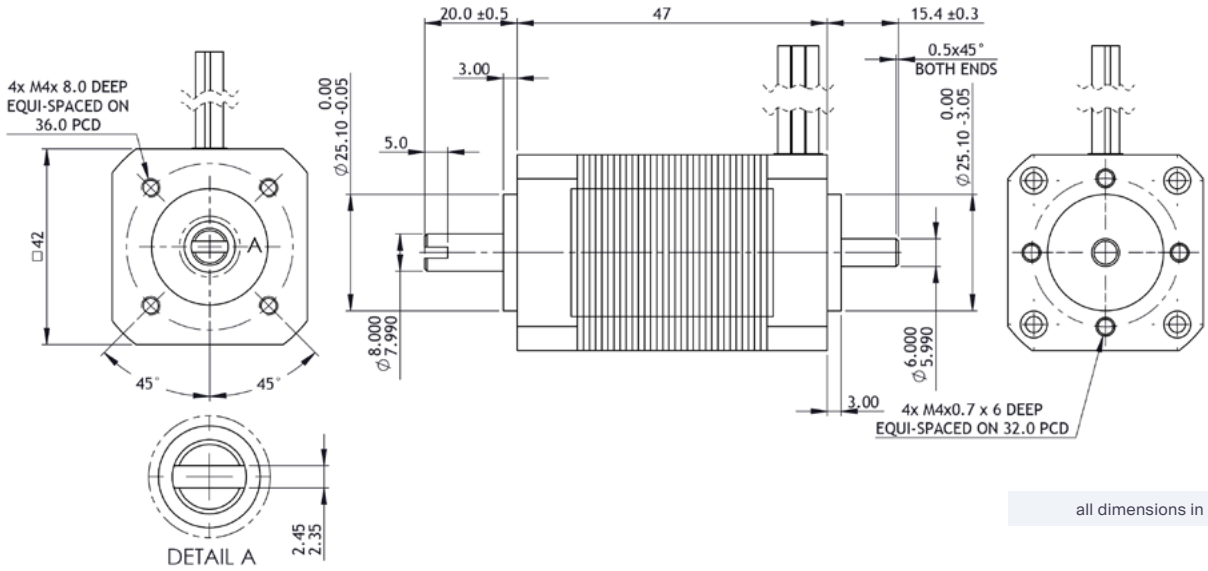
PBL42-15 BLDC motor

Ø42 mm frame // 15 mm stack

parvalux by maxon



all dimensions in mm

Part number key	
Modular	######
Standard	######
Calculated data	######

	Technical data			
1	Part number		776614	776615
2	Nominal power	W	26	26
3	Nominal voltage	V	24	48
4	No load speed	rpm	6068	6227
5	No load current	A	0.4	0.3
6	Nominal speed	rpm	4000	4000
7	Nominal continuous torque (S1)	Nm	0.063	0.063
8	Nominal continuous current (S1)	A	1.8	1.0
9	Max Intermittent torque (S2 - 15 minutes)	Nm	0.095	0.095
10	Stall current	A	6.50	3.34
11	Stall torque	Nm	0.21	0.21
12	Stack length	mm	15	15
13	Maximum efficiency	%	75	75
14	Ra	Ω	1.8	7.1
15	Rl	mH	2260	911
16	Speed constant	rpm/V	230.4	142.0
17	Torque constant	Nm/A	0.032	0.070
18	Speed torque gradient	rpm/Nm	28152	29351
19	Rotor inertia	Kgcm²	3.3 x 10^{-6}	3.3 x 10^{-6}
20	Weight	Kg	0.30	0.30

Connection details		
Lead colour	Lead gauge	Function
Red	UL1569/26 AWG	VCC
Black	UL1569/26 AWG	GND
Yellow	UL1569/26 AWG	Hall A
Green	UL1569/26 AWG	Hall B
Blue	UL1569/26 AWG	Hall C
Yellow	UL1569/20 AWG	Phase U
Green	UL1569/20 AWG	Phase V
Blue	UL1569/20 AWG	Phase W

	Thermal data		
22	Ambient temperature	°C	40

	Mechanical data		
23	Radial load [distance from flange]	N [mm]	130 [15]
24	Radial play	mm [@g]	0.06 [450]
25	Axial end play	mm [@g]	0.06 [450]

	Other data		
26	Number of poles		8
27	Winding type		Delta
28	Hall effect angle (electrical angle)	°	120
29	IP Rating		IP54
30	Enclosure		Enclosed
31	Insulation Class		B

Modular system

Gearbox	+L mm
S Box	59.0
SWS	110.0
SIS	72.0
SIW	82.0
GB28	88.0
PGx42	37.0 - 81.0

Brake	+L mm
1.5 Nm	28.2
2.0 Nm	32.4
4.0 Nm	27.7
Power-on	26.4

Encoder	+L mm
Incr. 5-pin	9.0
Incr. 10-pin	9.0
Diff. 10-pin	12.0

Controller
SC 50/15
ESCON
EPOS

Key
Standard combination
Modular combination

+L mm = approximate added length*

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

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additional information available on request