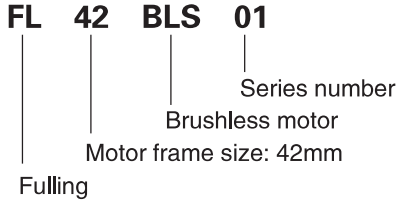




Brushless DC Motor

FL42BLS SERIES

● INDICATIONS OF THE MODELS



● GENERAL SPECIFICATIONS

Winding type	Delta
Hall effect angle	120 degree electrical angle
Shaft run out	0.025mm
Radial play	0.02mm@450g
End play	0.08mm@450g
Max. radial force	28N @ 20mm from the flange
Max. axial force	10N
Insulation class	Class B
Dielectric strength	500VAC for one minute
Insulation resistance	100MΩ Min., 500VDC

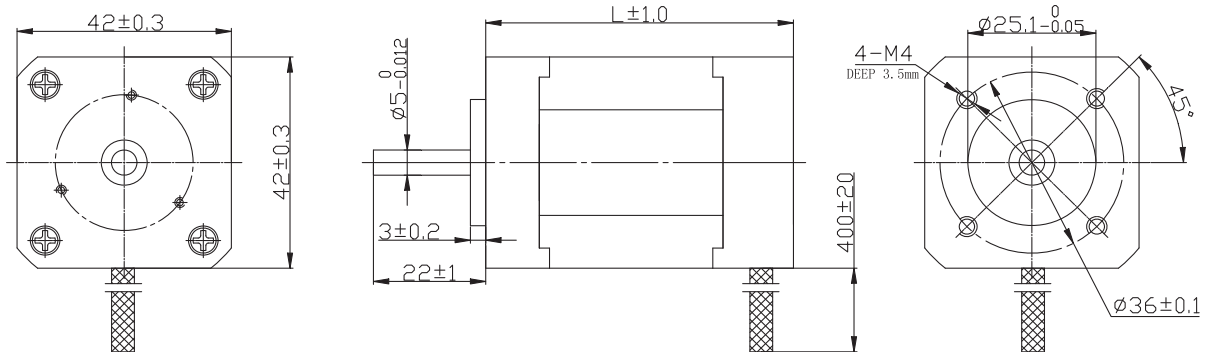
● ELECTRIC CONNECTION

Lead No.	Lead Color	Lead Gauge	FUNCTION	DESCRIPTION
1	Red	UL1430 26AWG	Vcc	Power supply positive of Hall: +5VDC → +24VDC
2	Blue		Hall A	
3	Green		Hall B	
4	White		Hall C	
5	Black	UL1430 20AWG	GND	Power supply negative of Hall
6	Yellow		Phase U	
7	Red		Phase V	
8	Black		Phase W	

● ELECTRICAL SPECIFICATIONS

Model		FL42BLS01	FL42BLS02	FL42BLS03	FL42BLS04
Number of poles		8			
Number of phase		3			
Rated voltage	VDC	24			
Rated speed	RPM	4000			
Continuous stall torque	N.m	0.075	0.15	0.22	0.3
Rated torque	N.m	0.0625	0.125	0.185	0.25
Rated power	W	26	52.5	77.5	105
Peak torque	N.m	0.19	0.38	0.56	0.75
Peak current	A	6	10.8	15.5	21.7
Line to line resistance	ohms	1.5	0.8	0.43	0.3
Line to line inductance	mH	2.1	1.2	0.71	0.5
Torque constant	N.m/A	0.033	0.036	0.037	0.035
Back E.M.F	Vrms/Krpm	2.45	2.71	2.74	2.62
Rotor inertia	g.cm ²	24	48	72	96
Body length	mm	40.3	60.3	80.3	100.3
Mass	Kg	0.3	0.45	0.65	0.8

● DIMENSIONS



*This motor can be designed & manufactured with customized request.