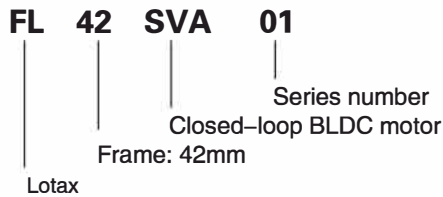


Closed-loop Brushless DC Motor

FL42SVA 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

No.	Lead Color	Lead Gauge	Function	CONNECTOR
1	Red/White	cable 26AWG	GND	AMP1-172169-9
2	Red		VCC:+5VDC	
3	Blue		EA-	
4	Blue/Black		EA+	
5	Black		EB-	
6	Black/White		EB+	
7	Brown		HALL A	
8	orange		HALL B	
9	Yellow		HALL C	
1	Yellow	cable 18AWG	U	AMP1-172167-9
2	Red		V	
3	Black		W	

● ELECTRICAL SPECIFICATIONS

Model		FL42SVA01	FL42SVA02	FL42SVA03	FL42SVA04
Number of poles		8			
Number of phase		3			
Rated voltage	VDC	24			
Rated speed	RPM	5000			
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	33	65.5	97	131
Peak torque	N.m	0.19	0.38	0.56	0.75
Peak current	A	6.5	12.5	18.3	24.4
Line to line resistance	ohms	1.15	0.5	0.28	0.25
Line to line inductance	mH	1.75	0.9	0.51	0.38
Torque constant	Nm/A	0.03	0.031	0.031	0.031
Back EMF	V/Krpm	2.23	2.3	2.32	2.28
Rotor inertia	g.cm ²	24	48	72	96
Body length	mm	61.3	81.3	101.3	121.3
Mass	Kg	0.3	0.45	0.65	0.8