

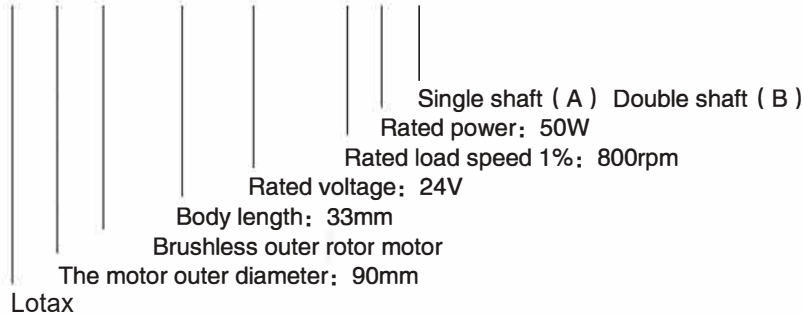


# Outer Rotor Brushless DC Motor

## FL90BLW SERIES

### ● INDICATIONS OF THE MODELS

**FL 90 BLW 33—24V— 8 50 A**



### ● GENERAL SPECIFICATIONS

Winding type	Star
Hall effect angle	120degree electrical angle
Shaft run out	0.05mm
Radial play	0.02mm@450g
End play	0.08mm@450g
Max. radial force	110N @ 10mm from the flange
Max. axial force	45N
Insulation class	Class B/F
Dielectric strength	500VAC 1 min.
Insulation resistance	100MΩ, 500VDC

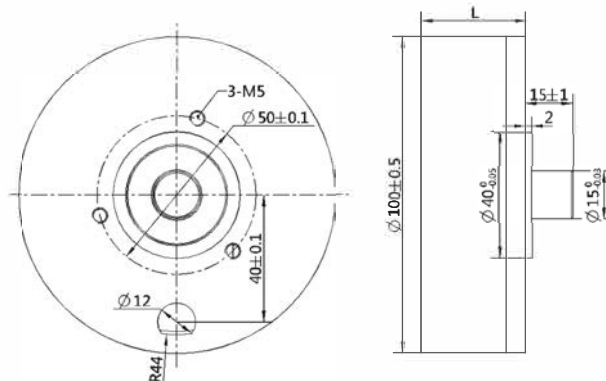
### ● ELECTRIC CONNECTION

Lead No.	Lead Color	Lead Gauge	FUNCTION	DESCRIPTION
1	Red	AWG26	Positive of Hall	+5—+24V
2	Blue		Hall U	
3	Green		Hall V	
4	White		Hall W	
5	Black	AWG16/18 /20/22	Negative of Hall	
6	Yellow		U	
7	Red		V	
8	Black		W	

### ● ELECTRICAL SPECIFICATIONS

	Unit	FL90BLW33—24V—850A	FL90BLW55—48V—5100A
Number of poles		22	22
Number of phase		3	3
Rated voltage	VDC	24	48
Rated speed	RPM	800	500
Continuous running torque	N.m	0.72	2.4
Rated torque	N.m	0.60	2.0
Rated power	W	50	100
Peak torque	N.m	1.8	6.0
Peak current	A	9.5	8.5
Line to line resistance	ohms@20°C	1.1	2.1
Line to line inductance	mH	1.4	5.0
Torque constant	mNm/A	193	736
Back E.M.F	Vrms/KRPM	14.3	54.5
Rotor inertia	g.cm <sup>2</sup>	2000	4000
Body length(L)	mm	33	55
Weight	Kg	1.4	2.4

### ● DIMENSIONS



\*Product developing, only available for samples.