

Brushless DC Motor

FL86BLC SERIES

• INDICATIONS OF THE MODELS FL 86 BLC 64

Body length 64mm
BLC: Brushless motor C series
Frame: 86mm

Lotax



GENERAL SPECIFICATIONS

Winding type	Star	
Hall effect angle	120 degree electrical angle	
Shaft run out	0.05mm	
Radial play	0.02mm@450g	
End play	0.08mm@400g	
Max. radial force	220N@20mm from the flange	
Max. axial force	45N	
Insulation class	Class B	
Dielectric strength	500VAC for one minute	
Insulation resistance	100MΩ, 500VDC	

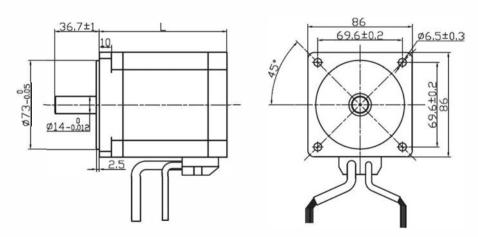
• ELECTRIC CONNECTION

Lead No.	Lead Color	Lead Gauge	FUNCTION	DESCRIPTION	
1	Red	UL1332 AWG26	Vcc	Power supply positive of Hall +5VDC-+24VDC	
2	Blue		Hall A		
3	Green		Hall B		
4	White		Hall C		
5	Black		GND	Power supply negative of Hall	
6	Yellow	UL1332 AWG14	U		
7	Red		V		
8	Black	AWG14	W		

• ELECTRICAL SPECIFICATIONS

Model	Unit	FL86BLC64	FL86BLC77	FL86BLC105	FL86BLC125		
Number of poles		8					
Number of phase		3					
Rated voltage	VDC	48					
Rated speed	RPM	3000					
Rated torque	N.m	0.4	0.8	1.6	2.22		
Rated power	W	130	250	500	700		
Peak torque	N.m	1.2	2.4	4.8	6.66		
Peak current	Α	11	17.5	37	52		
Line to line resistance	ohms@20℃	1	0.34	0.14	0.1		
Line to line inductance	mH	1.4	0.6	0.36	0.24		
Torque constant	Nm/A	0.122	0.149	0.135	0.131		
Back E.M.F	Vrms/Krpm	9	11	10	9.7		
Rotor inertia	g.cm ²	400	800	1600	2400		
Body length(L)	mm	64	77	105	125		
Weight	Kg	1.5	1.85	2.7	4		

DIMENSIONS



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