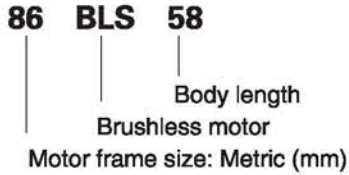


# Brushless DC Motor

## 86BLS SERIES

### ● INDICATIONS OF THE MODELS



### ● 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@450g
Max. radial force	220N @ 20mm from the flange
Max. axial force	60N
Insulation class	Class F
Dielectric strength	500VAC for one minute
Insulation resistance	100MΩ Min., 500VDC

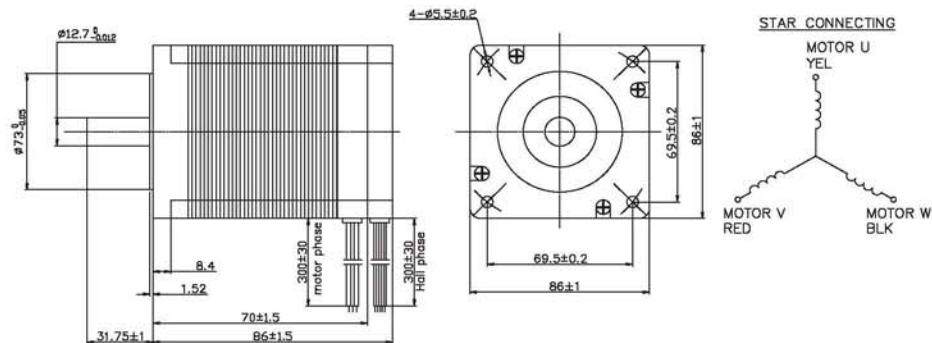
### ● ELECTRIC CONNECTION

Lead No.	Lead Color	Lead Gauge	FUNCTION	DESCRIPTION
1	Red	UL1332 22#AWG	Vcc	Power supply of Hall positive :+5VDC-->+24VDC
2	Blue		Hall A	
3	Green		Hall B	
4	White		Hall C	
5	Black	UL1332 18#AWG	GND	Power supply of Hall negative
6	Yellow		Phase A	
7	Red		Phase B	
8	Black		Phase C	

### ● ELECTRICAL SPECIFICATIONS

Model		86BLS58	86BLS71	86BLS84	86BLS98	86BLS125
Number of poles		8				
Number of phase		3				
Rated voltage	VDC	48				
Rated speed	RPM	3000				
Rated torque	N.m	0.35	0.7	1.05	1.4	2.1
Rated power	W	110	220	330	440	660
Peak torque	N.m	1.05	2.1	3.15	4.2	6.3
Peak current	A	9.5	20	24	33	56
Line to line resistance	ohms	0.9	0.34	0.2	0.16	0.10
Line to line inductance	mH	2.6	1	0.66	0.5	0.31
Torque constant	Nm/A	0.116	0.124	0.127	0.127	0.128
Back E.M.F	Vrms/KRPM	8.6	9	9.4	9.4	9.5
Rotor inertia	g.cm <sup>2</sup>	400	800	1200	1600	2400
Body length (L)	mm	56	70	84	96	123
Mass	Kg	1.6	2.12	2.64	3.15	4.2

### ● DIMENSIONS



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