Brushless dc servo motors 23BLS series 1

Description

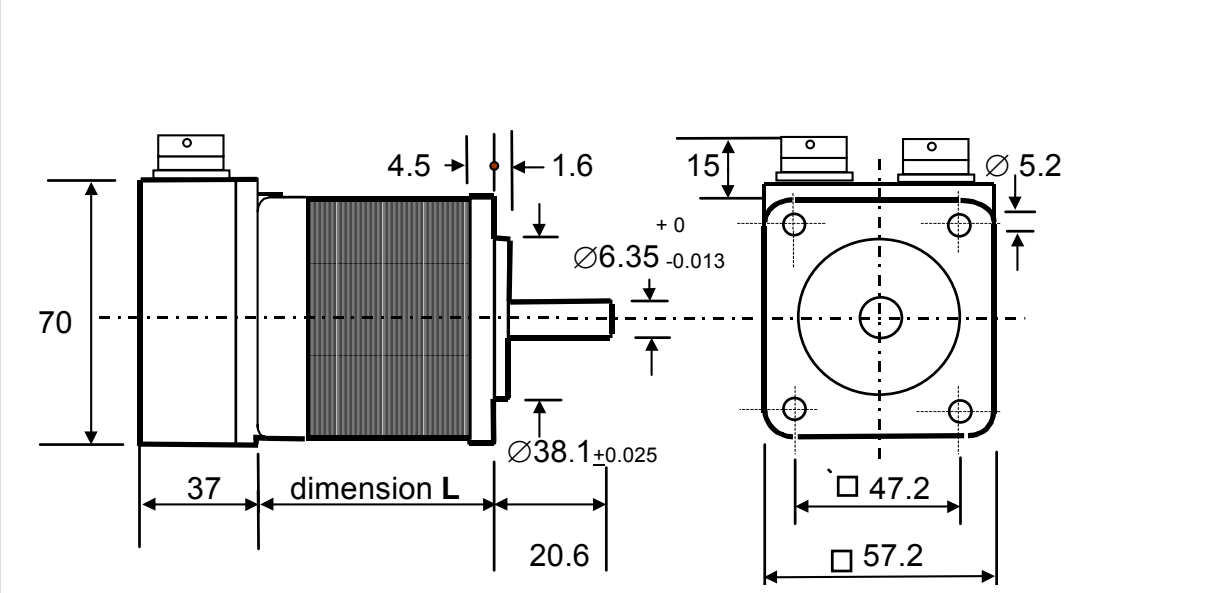
The 23BLS series 1 brushless servo motors provide a choice of size and performance with output power ratings up to 130 watts. Designed for mounting in industrial & professional systems the 23BLS series 1 motors are equipped with connectors for both motor & encoder connections

The brushless construction combined with high grade ball bearings provide an extended life in applications requiring variable speed or positional servo operation featuring rapid positioning.
The units utilise a 3 phase design with hall effect commutation combined with an incremental encoder to enable accurate digital control to be utilised. When operated in a positional control loop a positioning resolution of 2000 counts per revolution is obtained.

The 23BLS series motors are equipped with a mounting flange and shaft design compatible with the NEMA size 23 standard and therefore are physically interchangeable with hybrid stepper motors.

When used with IPM series integrated drives a complete motion system can easily be constructed.

Dimensions: mm



Performance & specifications

		Brushless servo motor options		
Performance using IPM series drive		**23BLS 111**	**23BLS-211**	**23BLS-311**
No Load speed	rpm	3,500	3,500	4,400
Speed @ rated torque	rpm	3000	3000	4000
Continuous torque @ rated speed	Nm	0.10	0.20	0.30
Peak torque	Nm	0.33	0.6	0.9
Output power using B5A030 drive	Watts	30	60	120
Motor specification				
Motor body length '**Dimension L**'	mm	55	75	95
Maximum allowable continuous speed	rpm	4,000	4,000	4,000
Continuous stall torque	Nm	0.14	0.27	0.39
Maximum peak torque	Nm	0.35	0.68	0.98
Torque constant	Nm/A dc	0.08	0.084	0.084
Rotor inertia	$Kgcm^2$	0.075	0.119	0.173

Connections

Signal	Pin
+ 5V supply	A
0v	B
Encoder A+	C
Encoder B+	D
Encoder A-	E
Encoder B-	F
Encoder Index -	G
Encoder Index +	H
Hall sensor 1	J
Hall sensor 2	K
Hall sensor 3	L
Not connected	M

Motor windings	Pin
Phase 1	A
Phase 2	B
Phase 3	C
Ground	D