

Brushless dc servo motors

23BLS series 2

Description

The 23BLS series 2 brushless servo motors provide a choice of size and performance with output power ratings up to 130 watts. Designed for incorporation in enclosed equipment the 23BLS series 2 motors provide a particularly economic solution to OEM users.

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.

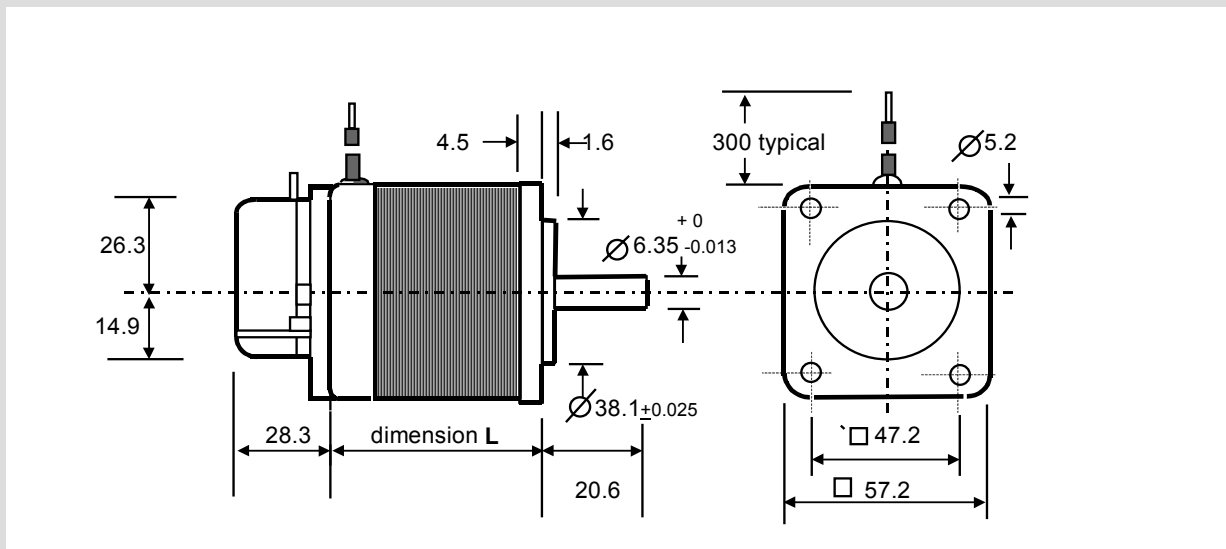
The units utilise a 3 phase design with hall effect commutation combined with an incremental encoder to enable accurate digital control to be utilised. When operated in a positional control loop a positioning resolution of 2000 counts per revolution is obtained.

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 121	23BLS-221	23BLS-321
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	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 No
N / C	1
Supply +5V	2
Ground	3
N / C	4
A-	5
A+	6
B-	7
B+	8
Index -	9
Index +	10

Suitable Connectors
 RS 471-109
 471-020
 482-115
 482-193

Encoder

Motor windings

- Phase 1** White /yellow
- Phase 2** White /Black
- Phase 3** White /red

Hall sensors

- Red Hall 5V Supply
- Black Hall 0V Supply
- Blue Hall C
- White Hall B
- Green Hall A

