

Leadshine ELVM60xxV48FH-B25-HD

Servo Motor



1.Features

- Brushless design
- 60 mm Frame size
- 48 V DC Rated voltage
- 200 / 400 W Rated Power
- Encoder with 2500 steps per revolution, incremented to 10000, with A, B and Index channels
- 0.64 Nm / 1.27 Nm Rated torque; 1.92 Nm / 3.81 maximum torque
- 3000 min⁻¹ rated speed / 4000 min⁻¹ max.speed

2.Description:

ELVM series is a new low voltage servo motor series developed by Leadshine with its own intellectual property rights. The servo motors feature short overall length, high torque density, high peak torque, low noise, low temperature rise and IP65 protection. The power range of the servo motors is from 50W to 2000W, with 2500ppr incremental encoder or 17-bit absolute encoder.

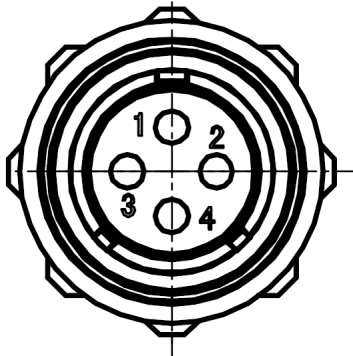
3.General Specification:

	ELVM6020V48FH-B25-HD	ELVM6040V48FH-B25-HD
Rated voltage (V)	48	
Rated power (W)	200	400
Rated torque (Nm)	0.64	1.27
Max. Torque (Nm)	1.92	3.81
Rated speed (1/min)	3000	
Max. Speed (1/min)	4000	
Rated current (A)	6	10
Max. Current (A)	18.6	31
Torque constant (Nm/A)	0.114	0.137
Back EMF constant (mV/rpm)	6.9	8.3
Moment of inertia (kg*m ² *10 ⁻⁴)	0.29	0.58
Resistance (Ω)	0.47	0.28
Inductance (mH)	0.92	0.52
Allowed radial force (N)	245	
Allowed axial force (N)	68	
Weight (kg)	1	1.3
Ambient temperature during operation (°C)	0 bis 40	
Encoder resolution (lines / Rev.)	2500	

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4. Connection



Motor-Connector:

ELVM6020V48FH-B25-HD: GM-1310/P-4B

ELVM6040V48FH-B25-HD: GM-2110/P-4

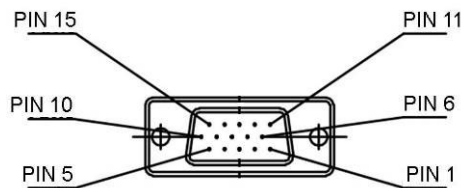
Matching Sockets (Included in the scope of delivery):

ELVM6020V48FH-B25-HD: GM-1311/S-4B

ELVM6040V48FH-B25-HD: GM-2111/S-4

	Pin	Color
Motor Phase U	1	Red
Motor Phase V	2	Blue
Motor Phase W	3	Black
Grounding	4	Yellow-Green

Encoder Connector: (D-Sub15, male):



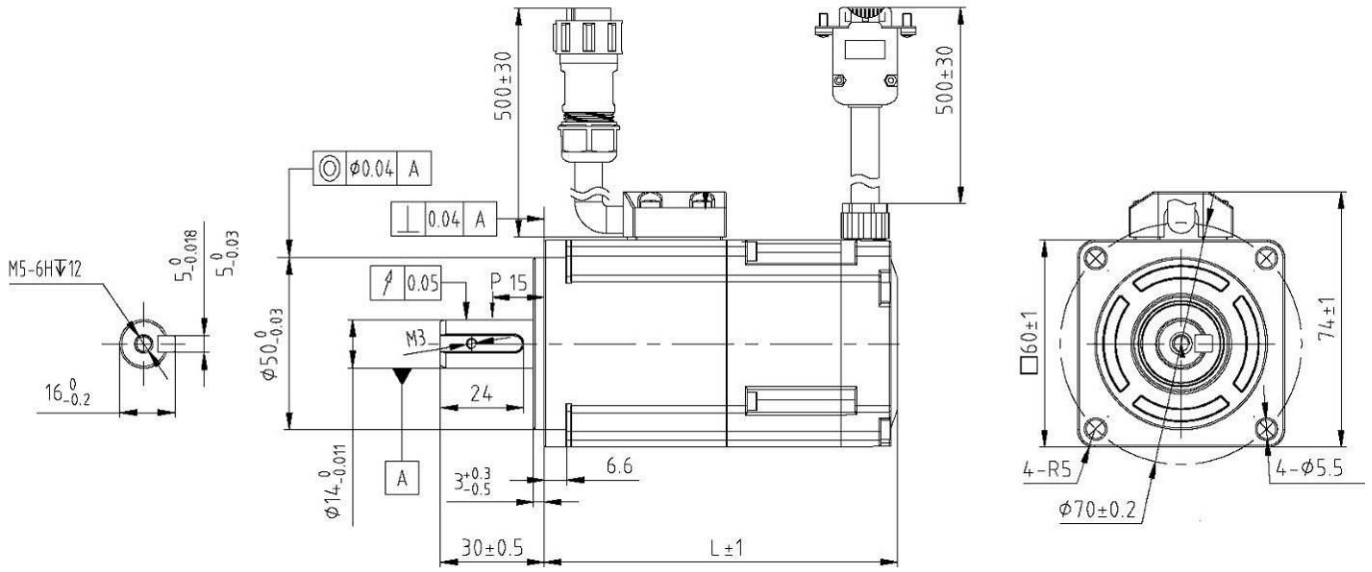
(Plug face view)

Suitable for ELD5-400/750			
Pin	Signal	Description	Wire Color
1	EB+	Encoder Channel B+	white
2	EA+	Encoder Channel A+	green
3	EGND	Signal Grounding	black
4	HallV+	Hall sensor V+	grey
5	HallU+	Hall sensor U+	brown
6	FG	Ground Shielding	
7	EZ+	Encoder Channel Z+	yellow
8	EZ-	Encoder Channel Z-	yellow-black
9	HallW+	Hall sensor W+	orange
10	HallW-	Hall sensor W-	orange-black
11	EB-	Encoder Channel B-	white-black
12	EA-	Encoder Channel A-	green-black
13	VCC	+5V @ 100mA max.	red
14	HallV-	Hall sensor V-	grey-black
15	HallU-	Hall sensor U-	brown-black

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5. Mechanical Specification



	ELVM6020V48FH-B25-HD	ELVM6040V48FH-B25-HD
Motor Length L in mm	73.1	90.1

6. Torque Curves

