

# HYBRID STEPPER MOTOR ES-M23440 WITH ENCODER



## FEATURES:

- 2-phase hybrid stepper motor
- 1000-lines/Rev. encoder
- Standard NEMA 34 dimensions
- High torque design

The ES-M23440 two-phase stepper motor with encoder feedback is designed to work with the Leadshine Hybrid Servo Drive ES-D808 or ES-D1008 to build a hybrid servo closed loop system (no loss of steps anymore).

## GENERAL SPECIFICATIONS:

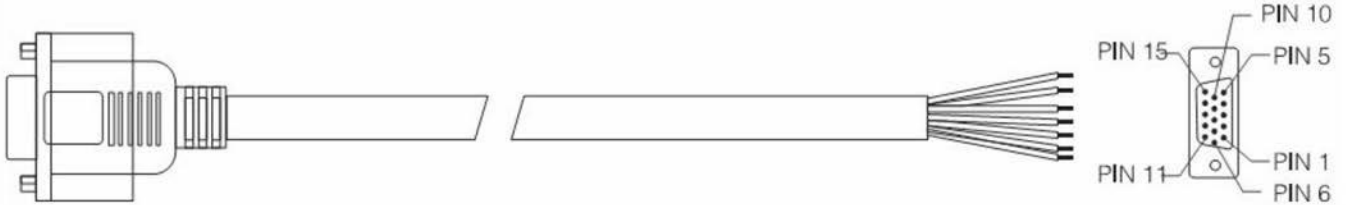
	ES-M23440
Step Angle (Degree)	1.8
Holding Torque (Nm)	4.0
Phase Current (A)	5.5
Phase Resistance (Ohm)	0.46
Phase Inductance (mH)	4.0
Inertia (kg.cm <sup>2</sup> )	1.5
Weight (kg)	2.5
Encoder (lines / Rev.)	1000

## Encoder Specifications:

Parameter	Min	Typical	Max	Unit
Operating Temperature	-40	-	100	°C
Supply Voltage	4.5	5	5.5	VDC
Output Current per Channel	-1	-	5	mA
Low Level Output Voltage	-	-	0.4	VDC
High Level Output Voltage	2.4	-	-	VDC
Count Frequency	-	-	100	KHz

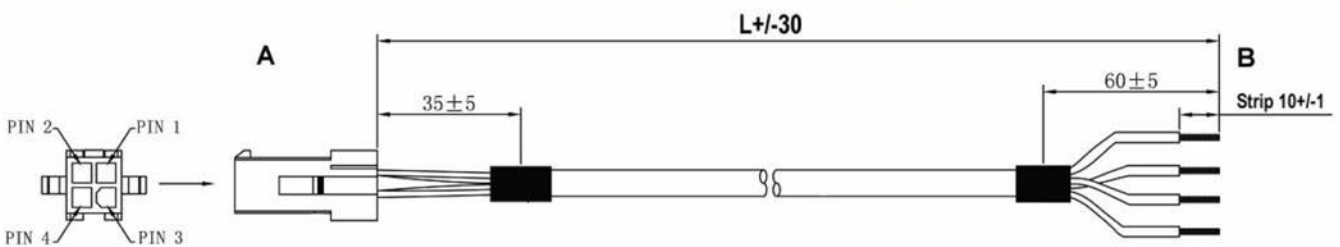
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## Encoder Extension Cable:



Pin	Name	Color	Description
1	EA+	Black	Encoder channel A+
2	VCC	Red	+5V power input
3	GND	White	Ground (for power input)
4	NC	-	Not connected
5	NC	-	Not connected
6	NC	-	Not connected
7	NC	-	Not connected
8	NC	-	Not connected
9	NC	-	Not connected
10	NC	-	Not connected
11	EB+	Yellow	Encoder channel B+
12	EB-	Green	Encoder channel B-
13	EA-	Blue	Encoder channel A-
14	NC	-	Not connected
15	NC	-	Not connected

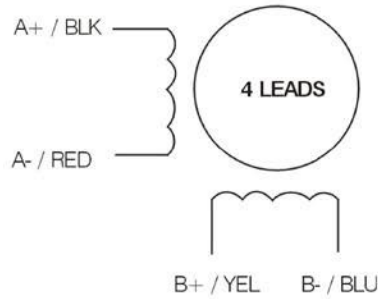
## Motor Extension Cable:



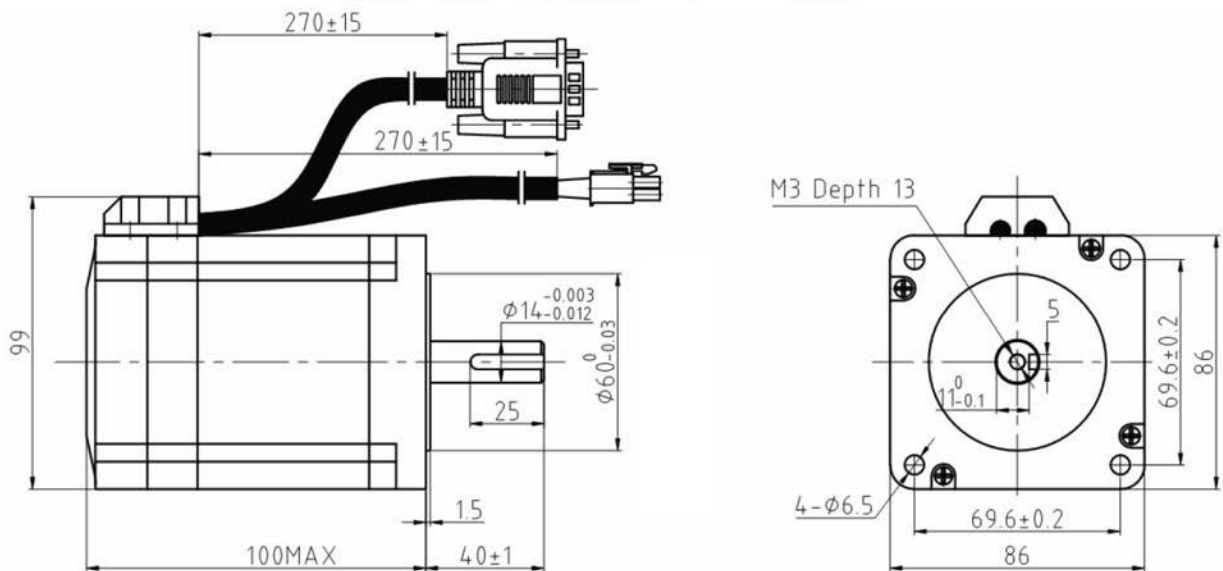
Pin	Name	Color	Description
1	B-	Blue	Phase B-
2	A-	Red	Phase A-
3	A+	Black	Phase A+
4	B+	Yellow / Green	Phase B+

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## MOTOR WIRING DIAGRAM:



## MECHANICAL DIMENSIONS:



## SPEED TORQUE CURVE:

