

## Step Motor with Encoder

## ES2-MH334xxx



## Features:

- 3-phase hybrid stepper motor
- 1000-lines/Rev. encoder
- Standard NEMA 42 dimensions
- High torque design

The ES-MH334xxx three-phase stepper motor with encoder feedback is designed to work with the Leadshine Hybrid Servo Drives ES-DH-series to build a hybrid servo closed loop system (no loss of steps anymore).

## General Specification:

	ES2-MH334100		
Step Angle (Degree)	1.2		
Holding Torque (Nm)	10.0		
Max. Current per Phase (A)	6.0		
Resistance per Phase (Ohm)	2.66		
Inductance per Phase (mH)	18.9		
Inertia (kgcm <sup>2</sup> )	3.0		
Weight (kg)	5.0		
Encoder (Lines per Revolution)	1000		

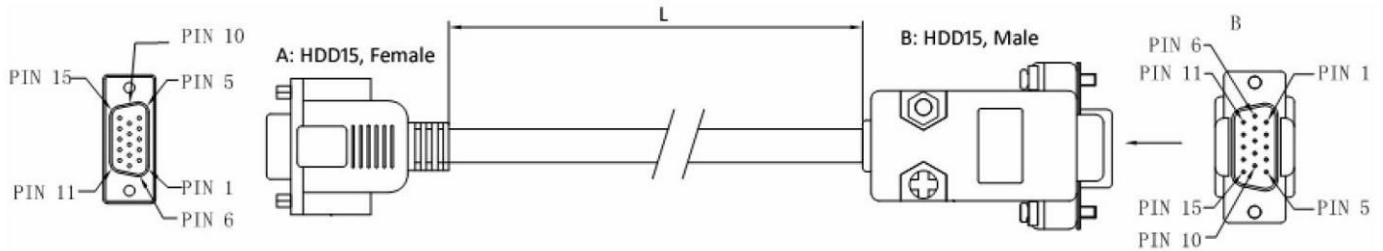
## Encoder Specification:

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

# Step Motor with Encoder

# ES2-MH334xxx

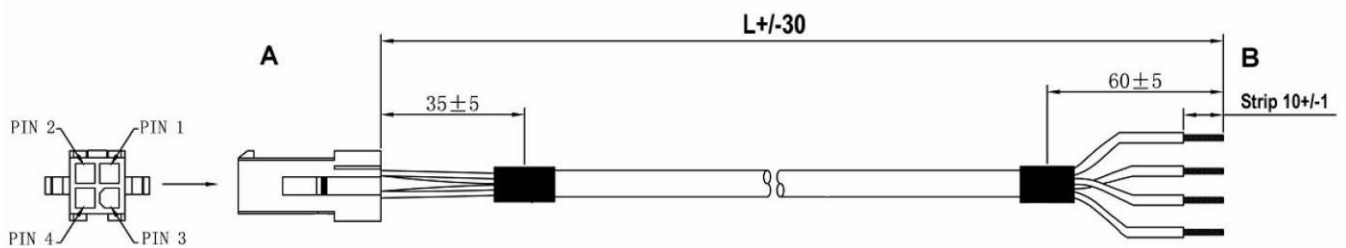
## Encoder-Extension Cable:



Pin (female)	Name	Color	Pin (male)	Description
1	EA+	Black	1	Encoder Channel A+
2	VCC	Red	13	+5V power input
3	GND	White	3	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	2	Encoder Channel B+
12	EB-	Green	12	Encoder Channel B-
13	EA-	Blue	11	Encoder Channel A-
14	NC	-	-	Not Connected
15	NC	-	-	Not Connected

**Note:** The encoder extension cable must be connected between ES-MH342120 motor and the ES-DHXXXX. You cannot connect the motors encoder cable to the ES-DHXXXX directly.

## Motor-Extension Cable:

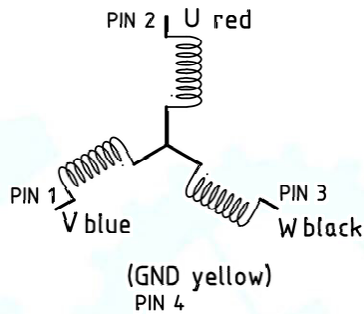


Pin	Name	Color	Description
1	V	Blue	Phase V
2	U	Red	Phase U
3	W	Black	Phase W
4	-	Yellow / Green	Not Connected

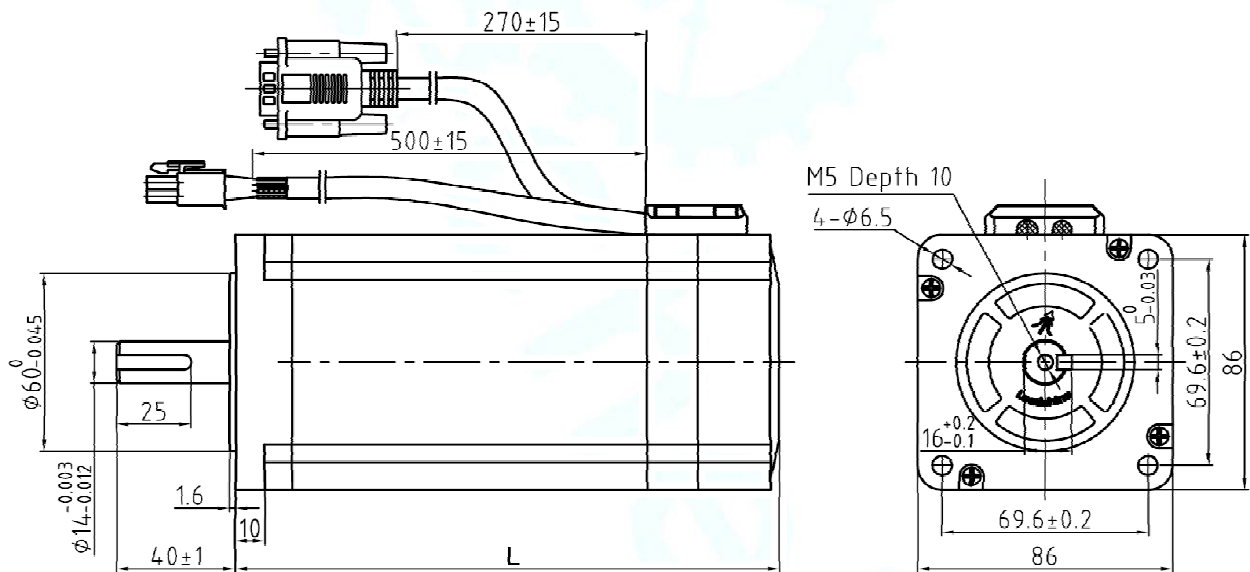
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## Motor Wiring Diagram:



## Mechanical Dimensions:



	ES2-MH334100	
Length L in mm	185	

## Torque Curve:

