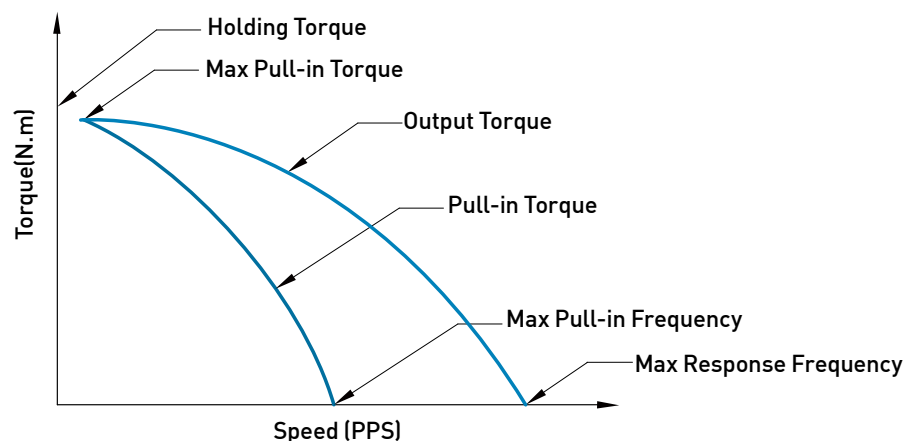


3. Two Phase Stepping Motor

Stepping Motor Ordering Information

Product	Model	Phase/Shaft	Type	Step Angle	Voltage	Serial number
Brushless Motor	ST:	0: 2S (2 phase/single axis) 1: 2D (2 phase/double axis)	1X: ST40 2X: ST55	0: F (stepping angle 1.8 meh.) 1: H (stepping angle 0.9 meh.)	24V	01~99

Characteristic Curves of Stepping Motor



- **Pull-in Torque**

It is the Max. torque that stepping motor and input signal are starting, stop synchronously. The range under of pull-in torque that motor can starting, stop synchronously and forward/reverse. The range is Starting rang oneself.

- **Max Pull-in Torque**

It is the starting pulse frequency lower than 10 pps, the Max torque of stepping motor can input signal for starting, stop synchronously.

- **Max Pull-in Frequency**

It is the Max input pulse rate of motor at no load that motor can stop, start in instant.

- **Max Pull-in Torque**

It is the motor and input signal for work synchronously, but can't start ,stop in instant for Max torque. The torque larger than output torque that motor be not work. The output torque below and start torque above of region in the meantime, the motor can't start or stop in instant that region is call slew region. It must be relay start region oneself at start and stop in slew region, otherwise has out of set.

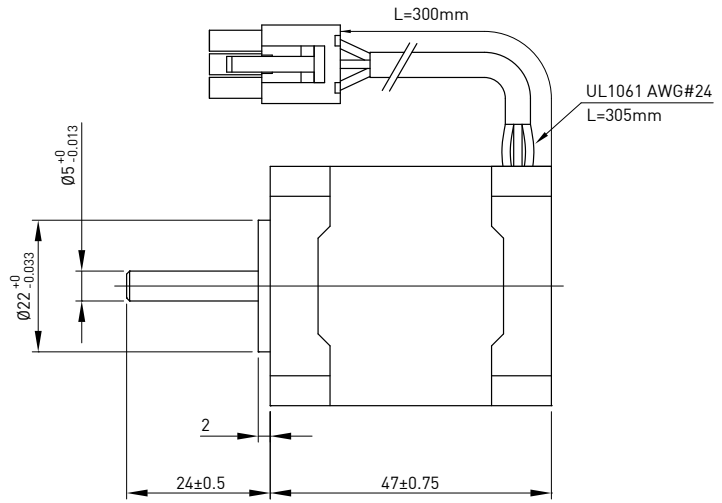
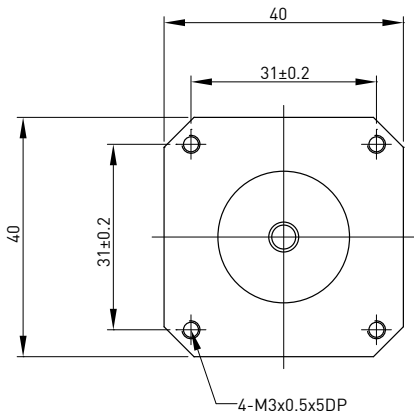
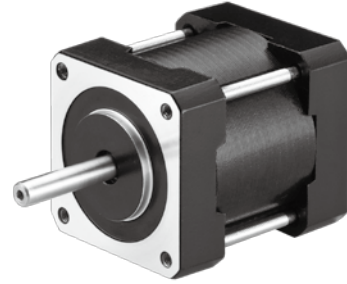
- **Max Response Frequency**

The output torque is equal zero for Max input frequency in motor at no load that calls it. In instant the Motor can't start or stop at the moment.

- **Holding Torque**

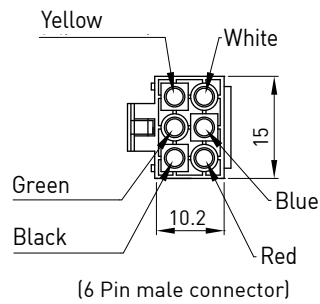
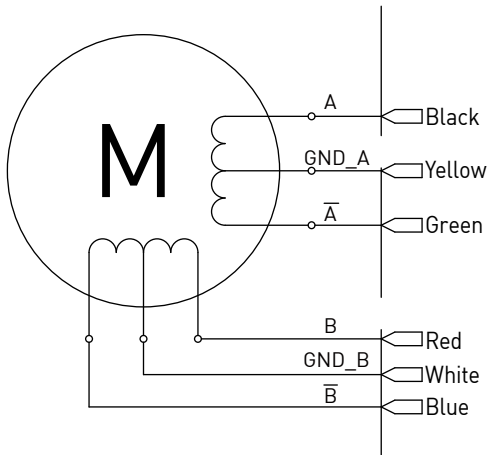
It is exerting max torque for extra add load to change rotor position in rotor keep motionless that motor stator winding is enable.

40mm Step Angle 1.8° ST40 Series



Model	Winding Type	Holding Torque	Current	Resistance	Inductance	Rotor Inertia	Leads	Motor Length (L)mm	Input Voltage Vdc
Single axis		N.m	A/phase	Ω/phase	mH/phase	g-cm ²			
FRST01102401	Single Pole	0.1	0.95	3.3	3.5	19	6	47	4

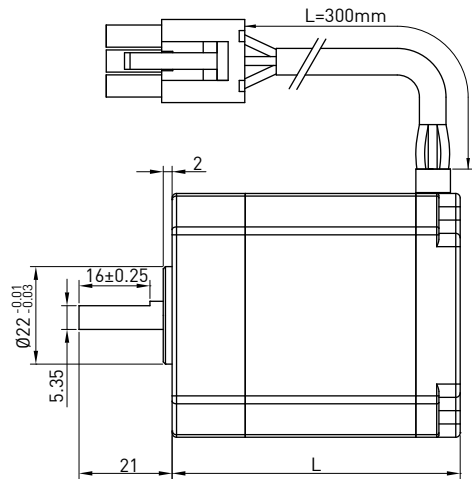
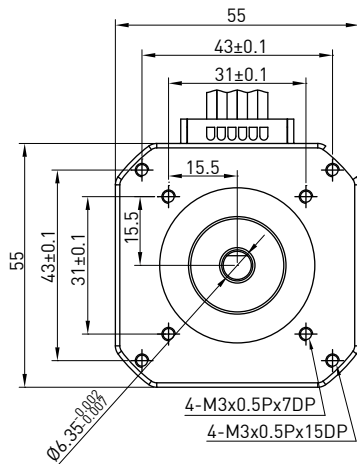
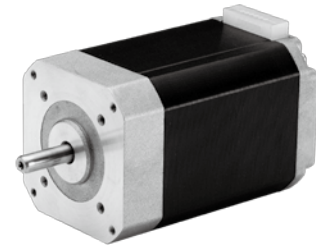
● Wiring Diagram



Notice:

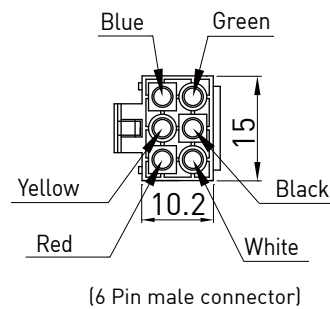
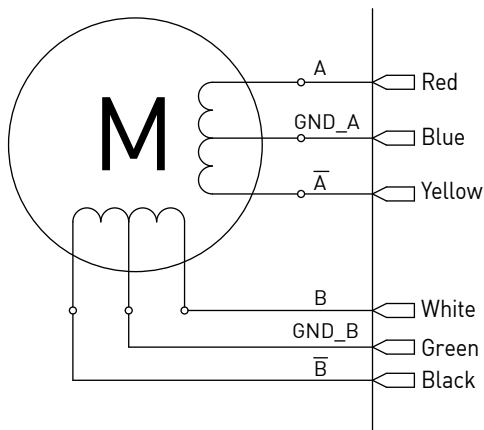
- ★ Please use the wire which is larger than 0.5mm² and as short as possible for power and motor connection.
- ★ Support 2 phase stepping motor (6 lead wire).

55mm Step Angle 1.8° ST55 Series



Model		Winding Type	Holding torque	Current	Resistance	Inductance	Rotor Inertia	Leads	Motor Length (L)mm	Input Voltage Vdc
Single axis	Double axis									
FRST02102401	FRST12102401	Single Pole	0.25	1.3	2.8	3.3	90	6	50.5	3
FRST02202401	FRST12202401	Single Pole	0.6	1.3	4.0	7.0	171	6	65	4
FRST02302401	FRST12302401	Single Pole	1.05	1.2	5.6	13.0	290	6	87	5.3

● Wiring Diagram



Notice:

- ★ Please use the wire which is larger than 0.5mm² and as short as possible for power and motor connection.
- ★ Support 2 phase stepping motor (6 lead wire).