

# MDS040 Series Smart Motor

## ● Description

The smart motor solutions is for servo motor applications. This integrates a 40mm servo motor with a smart control module including speed mode, position mode, and torque mode. The controller provides RS485 and PULSE/DIR interface. Easy-to-use GUI software allows users to optimize the design flexibly online through the RS485 control interface. The smart motors is widely applied in AGV, Material handling, Robot and so on.



## ● General Information

- DC18-36V Input Voltage Range
- 50, 100W Continuous Power Output
- 0.3° Position Resolution for control
- RS485 Interface and PULSE/DIR Interface
- Position, speed and torque control
- Operating Temperature: 0°C ~ +70°C
- Selectable position, speed, and torque mode

## ● PIN Configuration

8	9	10	11	12		● Fault Indication
1	2	3	4	5	6	● Power On Indication



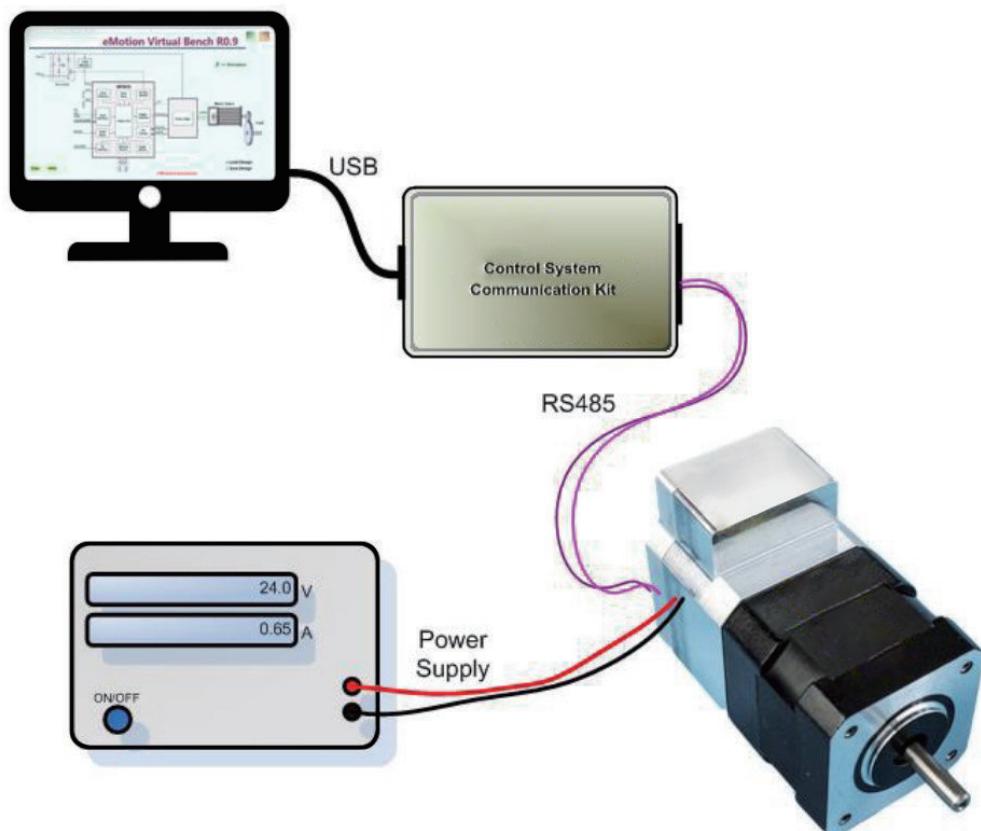
### Operation Conditions

Input voltage .....	18V to 36 V
Control interface voltage .....	0V to 5.5V
Max pulse frequency .....	500kHz
RS485 A/B voltage .....	0V to 5.5V
RS485 common mode voltage .....	±15V
Operation temperature.....	0°C to 70°C
Storage temperature .....	-40°C to +125°C

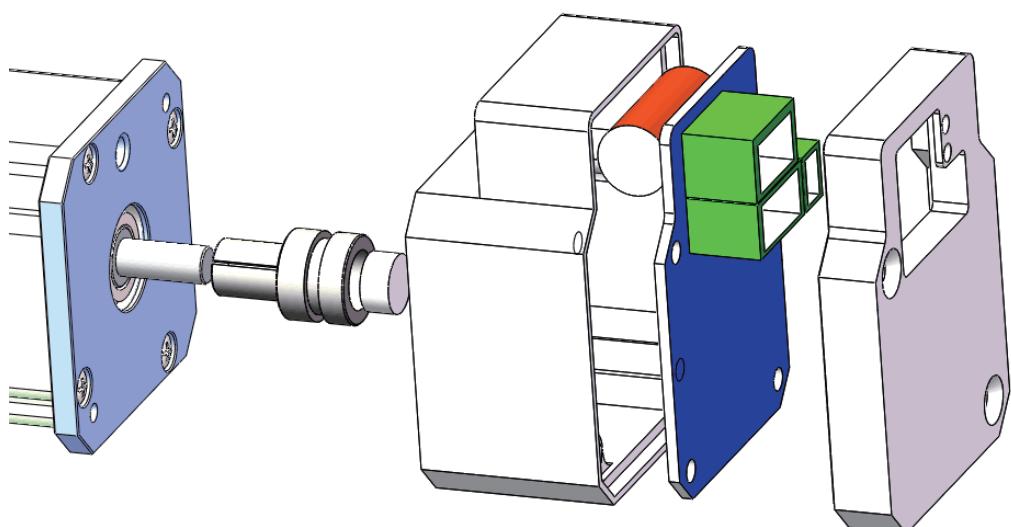
PIN	Designation	Description
RS485 Interface		
1	EXT_5V	5V Input For Firmware Programming
2	B	RS485 Node B
3	AGND	RS485 Ground
4	A	RS485 Node A
Power Interface		
5	GND	Power Ground
6	R-	Shunt Resistor Return Node
7	VIN	Input Power Supply
Control Interface		
8	COM-	Common Return
9	EN+	Enable Input
10	PEND+	Position End Output
11	PUL+	Pulse Input
12	DIR+	Direction Input

## MDS040 Series Smart Motor

- *Hardware connections for programming*



- *Mechanical Installation of PCB Assembly*



# MDS040 Series Smart Motor

- *Specifications*

	Unit	MDS040-01	MDS040-02
Voltage	VDC	24	36
Rated Speed	RPM	3000	3000
Rated Continuous Torque	Nm	0.16	0.32
Rated Current	A	2.8	3.8
Normal Power	W	50	100
Length	mm	69	83

- *Mechanical*

