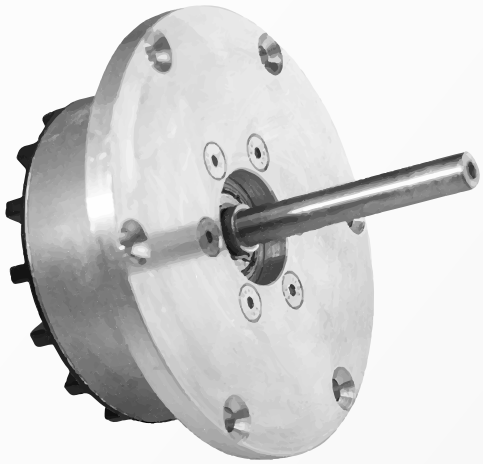
Mach Motion Products

LOGISTICS AUTOMATION



7509 South 5th Street, Suite 110, Ridgefield, WA 98642
Email: info@machmo.com | Phone: 360.601.0666

44mm BLDC Roller Motor

Email: info@machmo.com
Phone: 360.601.0666

General Information

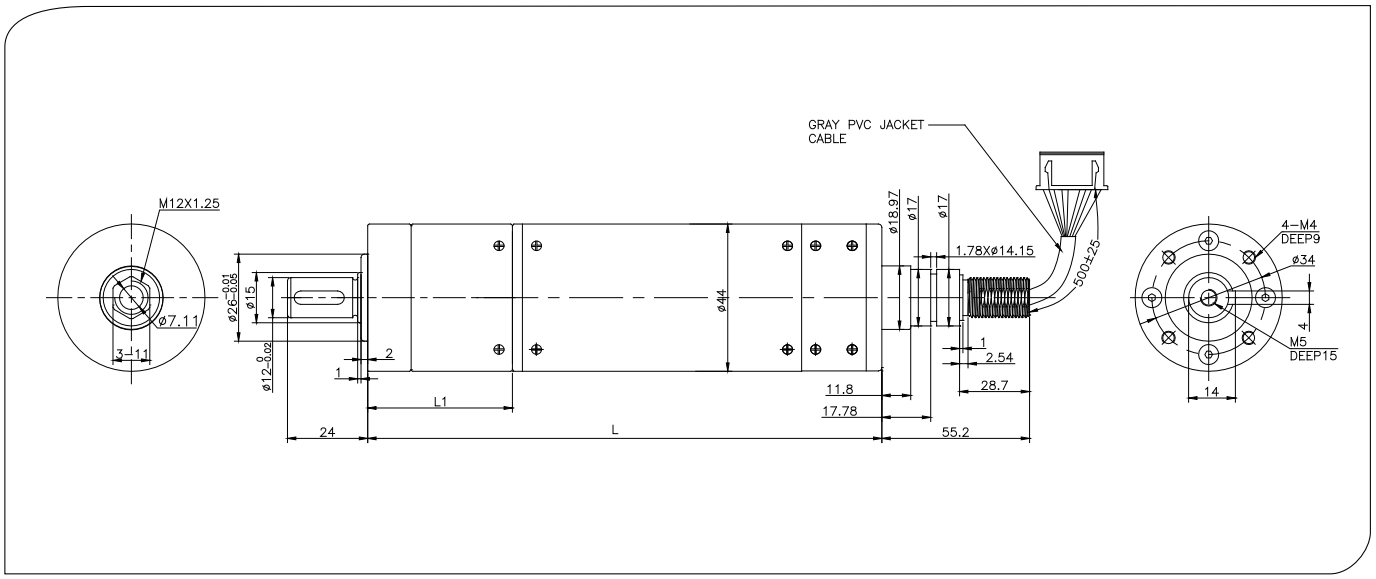
- 4 Poles, 3 Phase Brushless Motor
- Used for Roller System
- Safe, Reliable and Durable Operation
- Low Noise
- Brake Option Available

Specification

Model	Voltage (v)	Resistant (Ohms)	Inductance (mH)	Power (W)	Ke (V/KRPM)	Rated Torque (Nm)	Max. Speed (RPM)	No. of Poles	Length (mm)
MB044AS100	24	1.4	1.5	30	6.86	0.106	3500	4	111
MB044AS200	24	0.5	0.5	50	5.45	0.119	4400	4	132

Gearbox Specification			
Number of Stages	Ratio	Length(L1) (mm)	Efficiency (%)
1	5,7,9	43.3	92
2	11.56,15,25,49	61.3	85

Drawing



50mm Powered Roller

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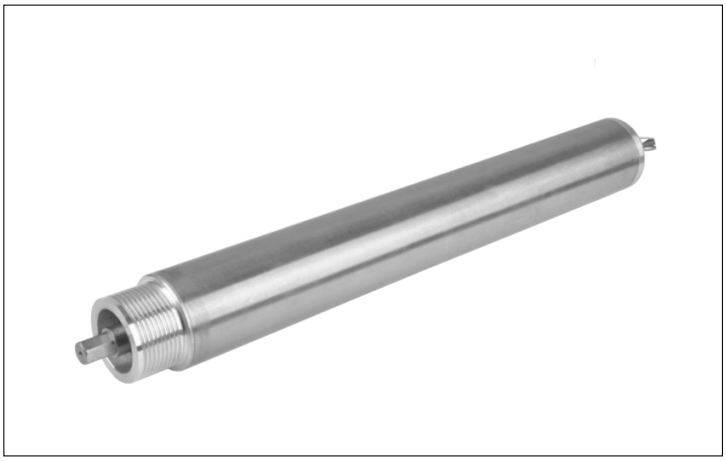
Phone: 360.601.0666

General Information

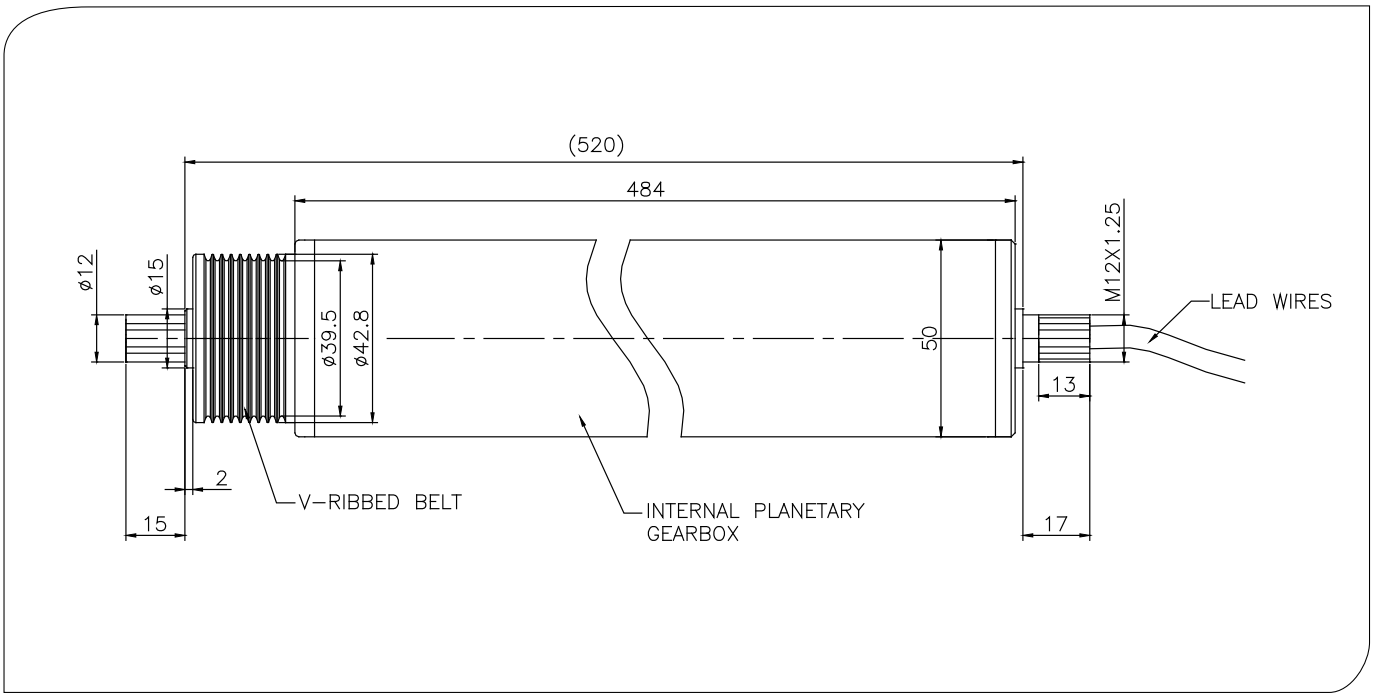
- Internal Planetary Gearbox BLDC Motor
  - Low Speed
  - Heavy Load
- Roller Length Can Be Customized



Specifications

Model	Voltage (v)	Rated Load		RollerTorque	Roller linear Speed	Ratio	Work Duty
		Speed (rpm)	Current (A)	(Nm)	(m/Min)		
MB050AS100-PL0036	24	172	3.92	2.9	27	36	Continuous
MB050AS100-PL0049	24	127	3.92	4.0	20	49	Continuous
MB050AS100-PL0064	24	97	3.92	5.2	15	64	Continuous
MB050AS100-PL0096	24	65	3.92	7.8	10	96	Continuous

Drawing



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Powered Roller Driver

General Information

- BLDC Motor Driver
- Input Voltage: 20-60VDC
- Rated Output Power: 200W
- Adjustable Speed
- Continuous Work Duty

Specifications

Item	Units	Description	Notes
Power Supply	VDC	20-60V	
Rated Current	A	4	
Peak Current	A	10	
Rated Power	W	200	
Speed Range	RPM	400-6200 for Motor	Gearbox Ratio: 36, 49, 64, 96
Speed Setting		Digital potentiometer / ABC Point input	
Communication		None	
I/O Port		Speed, Run/Stop, CW/CCW, Error	
Input Signal		PNP, 24V, 5mA	
Work Duty		Continuous	Based On Ambient Temperature
Operation Ambient Temp.	°C	0-40	
Operation Ambient Humidity		85% Max.	No Water Drops or Rain
Vibration		Frequence ≤20Hz: 9.8m/s^2 20Hz≤Frequence ≤50Hz: 2m/s^2	

Powered Roller Driver (diagram and drawing)

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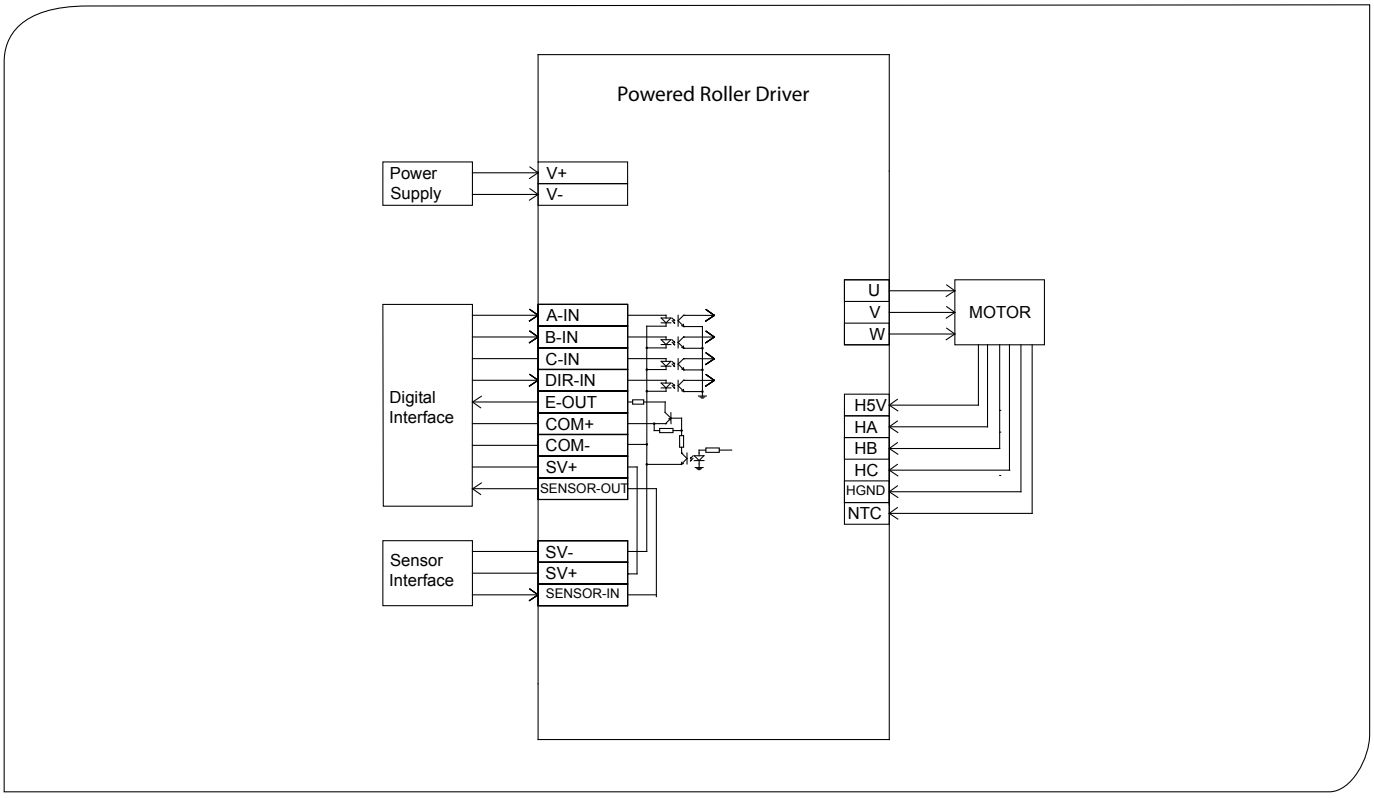
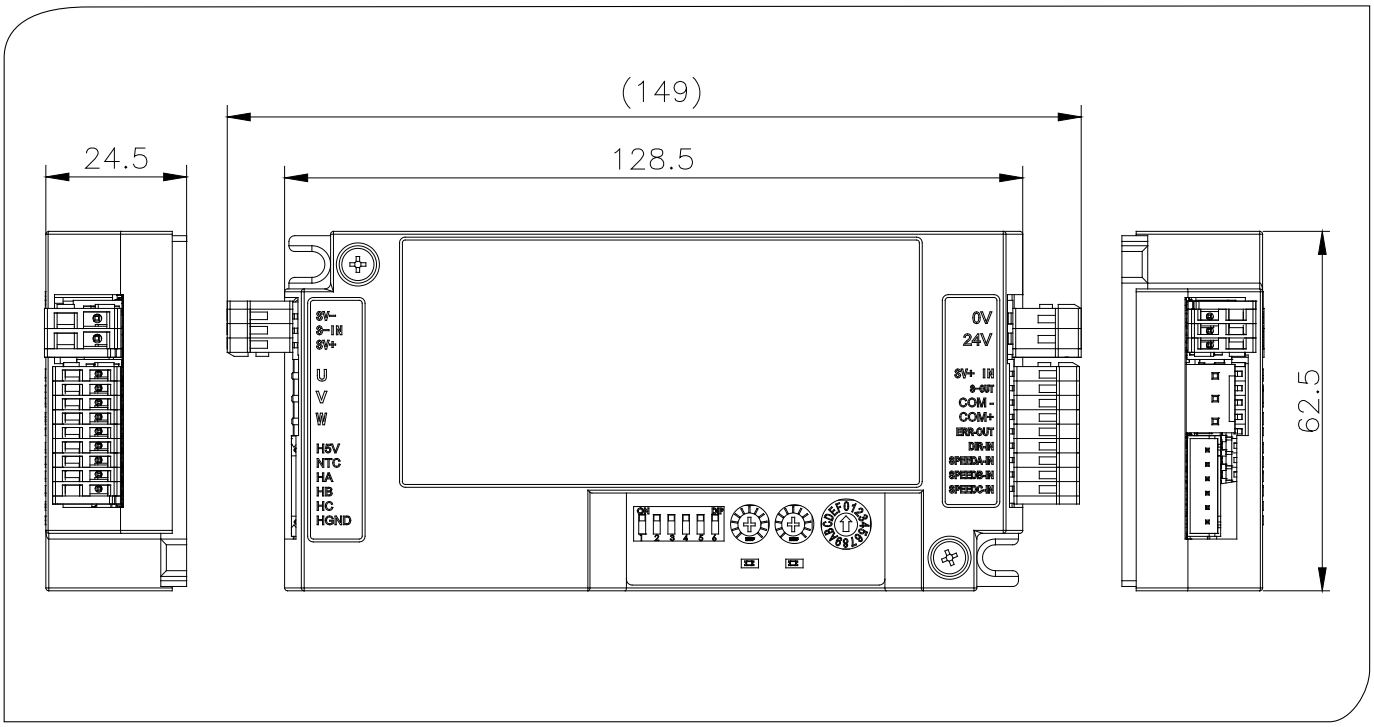
Wiring Diagram



Drawing



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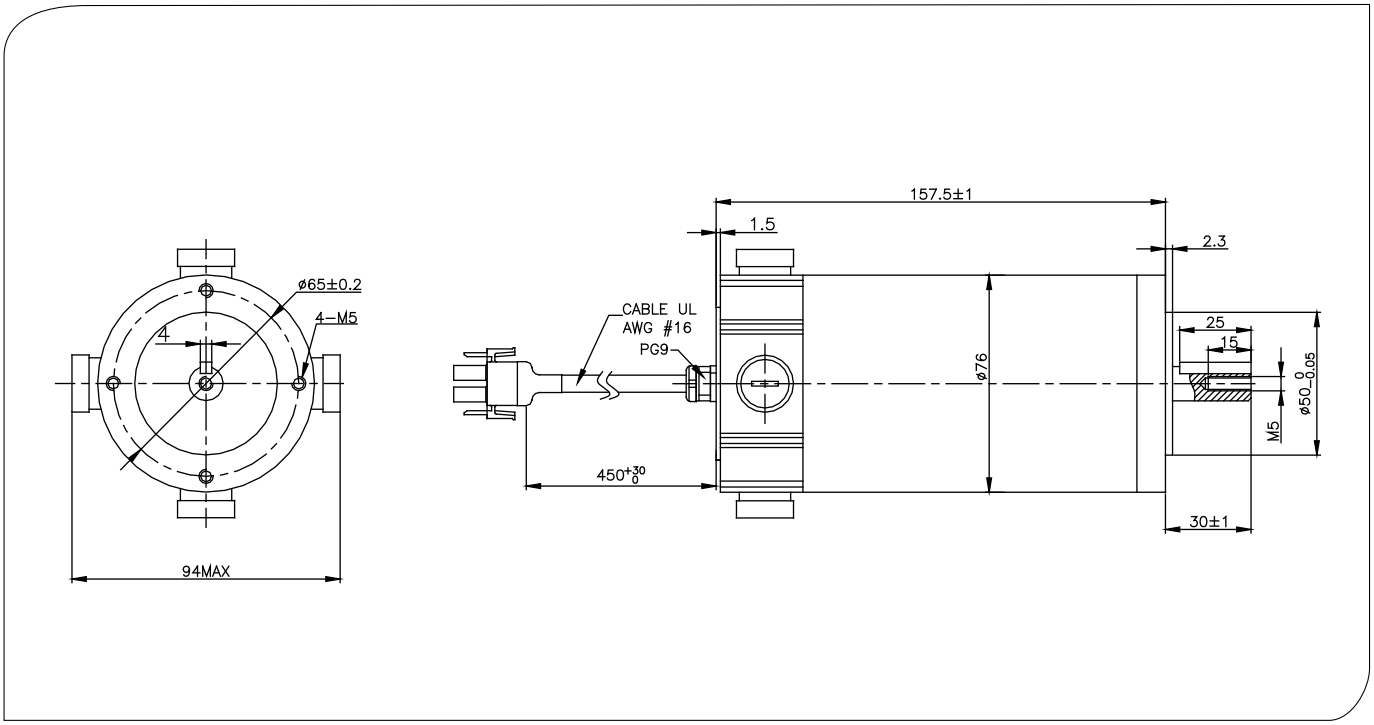
General Information

- High Efficiency
- Low Noise
- Low Cogging
- Protection Class: IP65
- UL Certified

Specifications

Model	Voltage (v)	Rated Torque (Nm)	Rated Speed (rpm)	Rated Current (A)	Rated Power (W)	Peak Torque (Nm)	Peak Current (A)	Back EMF (V/KRPM)
PM076HG404	60	1.45	1200	3.5	182	5.7	13.3	45

Drawing



Sorter Roller

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Phone: 360.601.0666

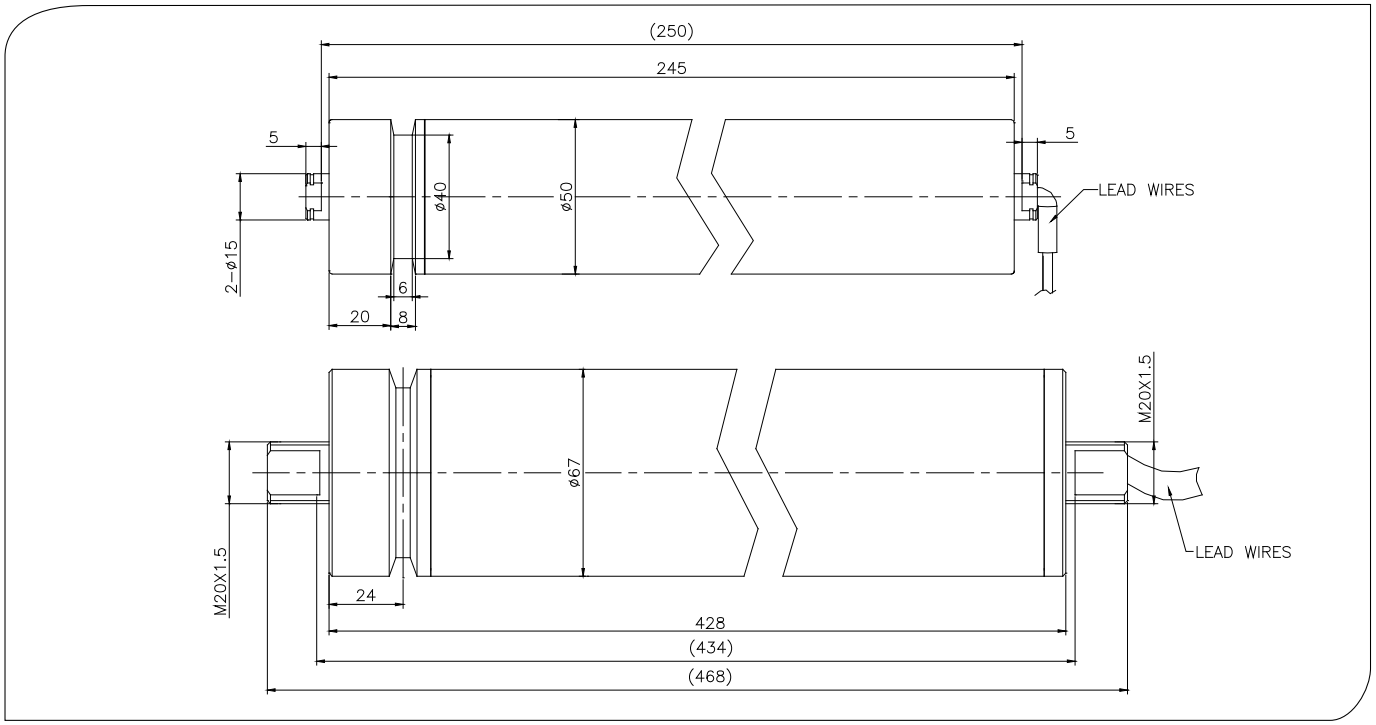
General Information

- External Rotor
- Direct Drive
- Quick Response
- Wide Speed Range
- High Torque and Low Noise
- Surface Knurling Available
- Customizable Roller Length

Specifications

Model	Voltage (V)	Rated Power (W)	Max.Torque (Nm)	Speed Range (RPM)	Linear Speed Range (m/s)	Max. Current (A)	Max. Sorting Weight (Kg)	Work Duty
MR050AS100	48	200	4.5	300-800	0.8-2.1	10	25	Continuous
MR067AS100	48	400	1.5	300-800	1-2.8	25	35	Continuous

Drawing



Sorter Roller Driver

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Phone: 360.601.0666

General Information

- BLDC Roller Motor DRIVER
- Input Voltage: 48 VDC
- Rated Output Power: 400W
- RS485 Communication
- Work Duty: S2-25%

Specifications

Item	Units	Description	Notes
Power Supply	VDC	48± 5%	
Rated Current	A	10	
Peak Current	A	25	
Rated Power	W	400	
Speed Range	RPM	300-1000	
Speed Control		Communication	
Speed Control Input		Communication or Digital control	
Communication		RS485	
Digital Input		NPN, 5mA	
Work Duty		S2-25%	Based On Ambient Temperature
Operation Ambient Temp.	℃	0-40	
Operation Ambient Humidity		85% Max.	No Water Drops or Rain
Vibration		Frequence ≤20Hz: 9.8m/s 20Hz≤Frequence ≤50Hz: 2m/s	

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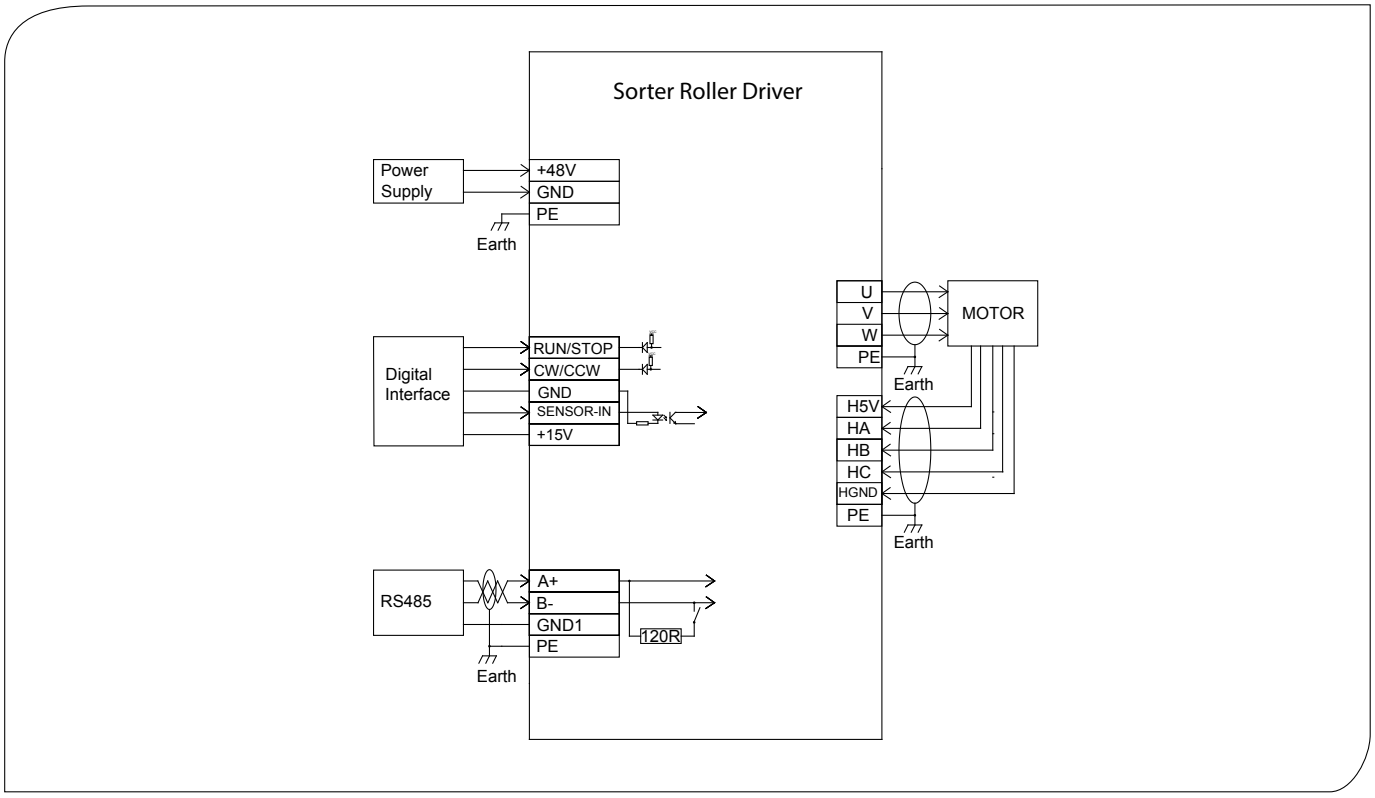
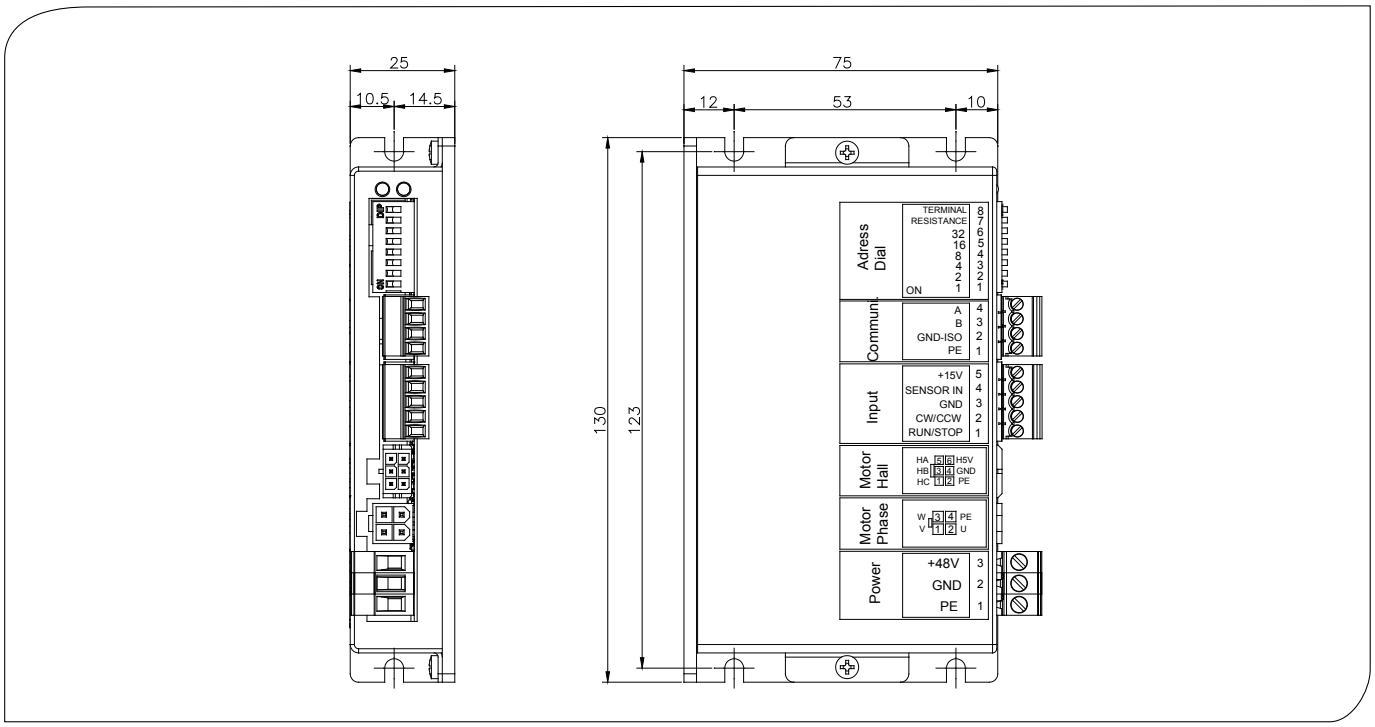
Wiring Diagram



Drawing



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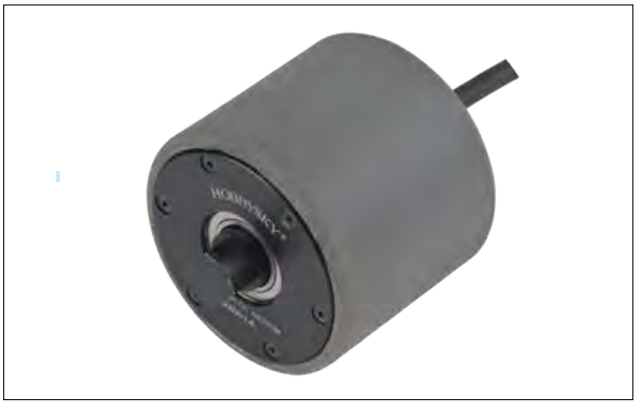
General Information

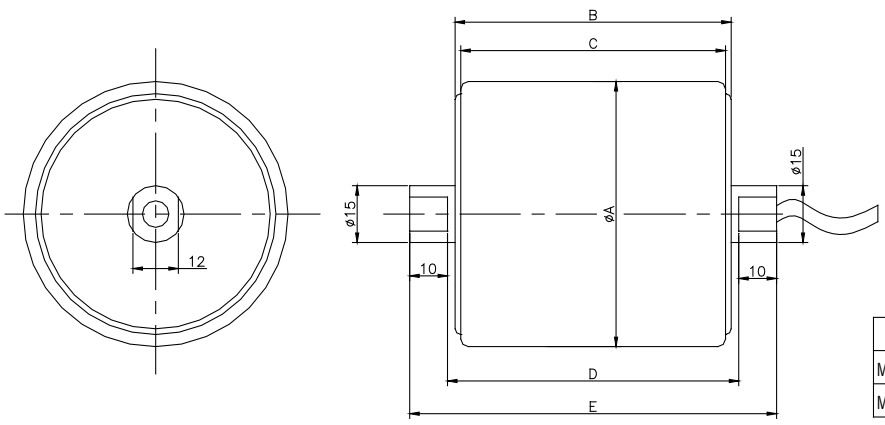
- Sensorless External Rotor
- Low Noise
- High Efficiency
- Multiple Colored Rubber Options Available
- Customizable Coating Thickness 2mm Standard



Specification

Model	Voltage (v)	Rated Power (W)	Max. Torque (Nm)	Speed Range (rpm)	Linear Speed (m/s)	Peak Current (A)	Duty Type
MRE056AS100	48	50	1.5	300-800	0.8-2.3	4	S2
MRE070AS100	48	50	1.5	300-800	1-3	4	S2

Drawing



PART NO.	A	B	C	D	E
MRE056AS100	ø56	60	60	68	86
MRE070AS100	ø70	70	73	77	97

Wave Sorter Driver

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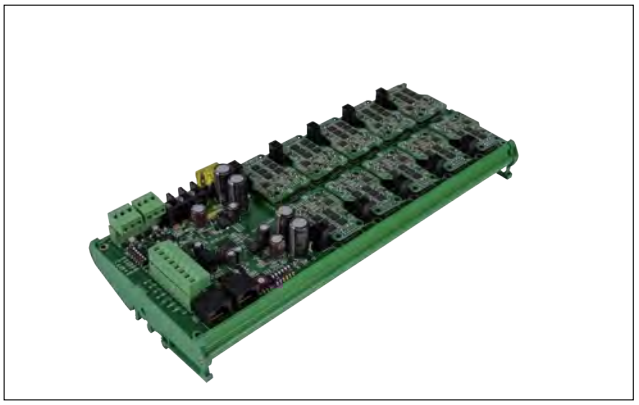
General Information

- BLDC Roller Motor Driver
- Rated Voltage: DC 18-50V
- Modbus/CANopen Commumication
- Up To 10 Motors per Driver
- Continuous Duty



Specification

Item	Units	Description	Notes
Power Supply	VDC	18-50	
Rated Current	A	10.4	1.04A per Motor
Peak Current	A	30	
Rated Power	W	500	50W per Motor
Speed Range	RPM	300-800	
Speed Control		Communication or 7 step regulation	
Communication		Modbus / CANopen	
I/O Port		Direction, Error	
Input Signal		PNP/NPN, 24V, 5mA	
Work Duty		Continuous	Based On Ambient Temperature
Ambient Temperature	℃	0-40	
Ambient Humidity		85% Max.	No Water Drops or Rain

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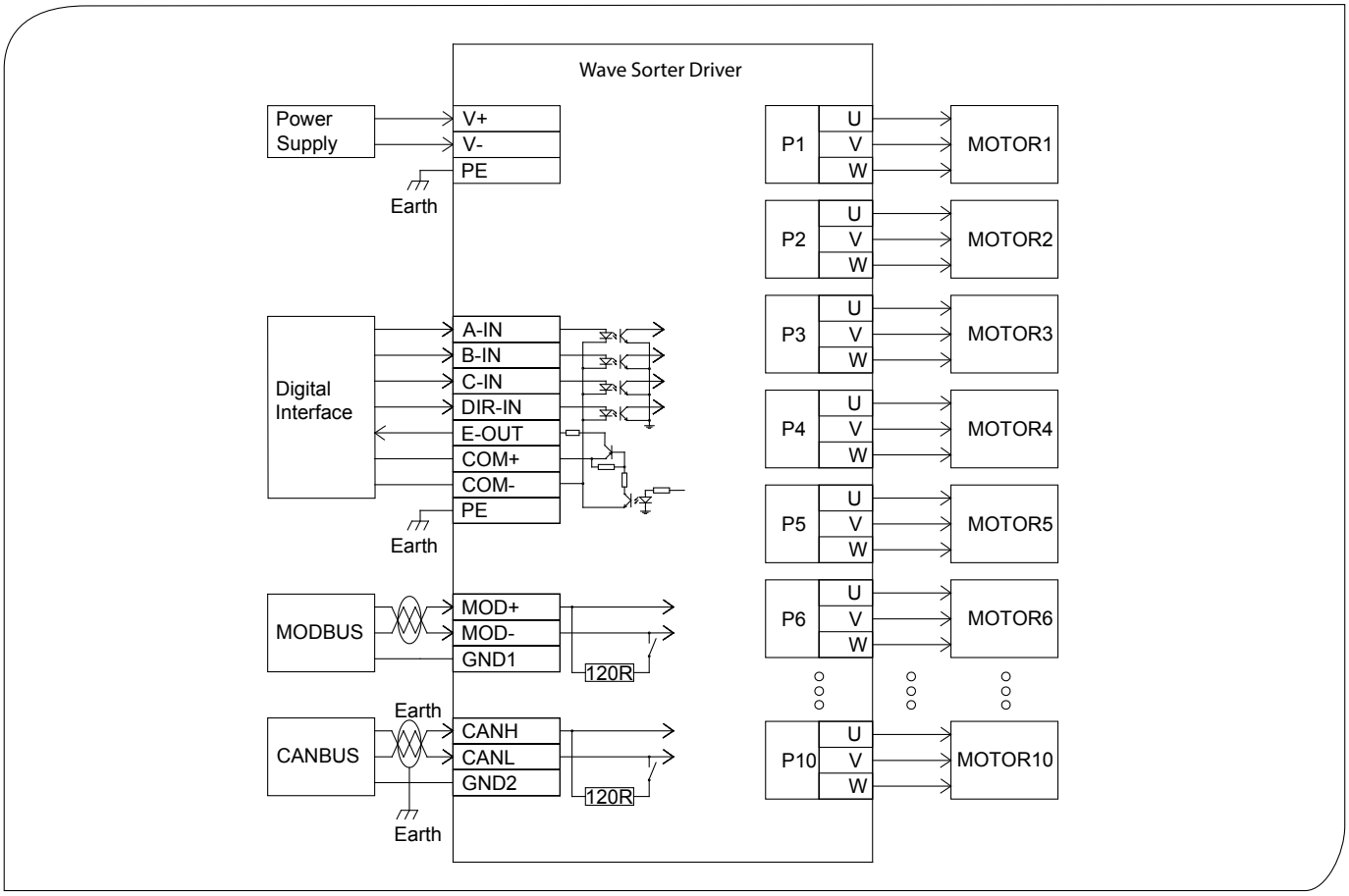
Wiring Diagram



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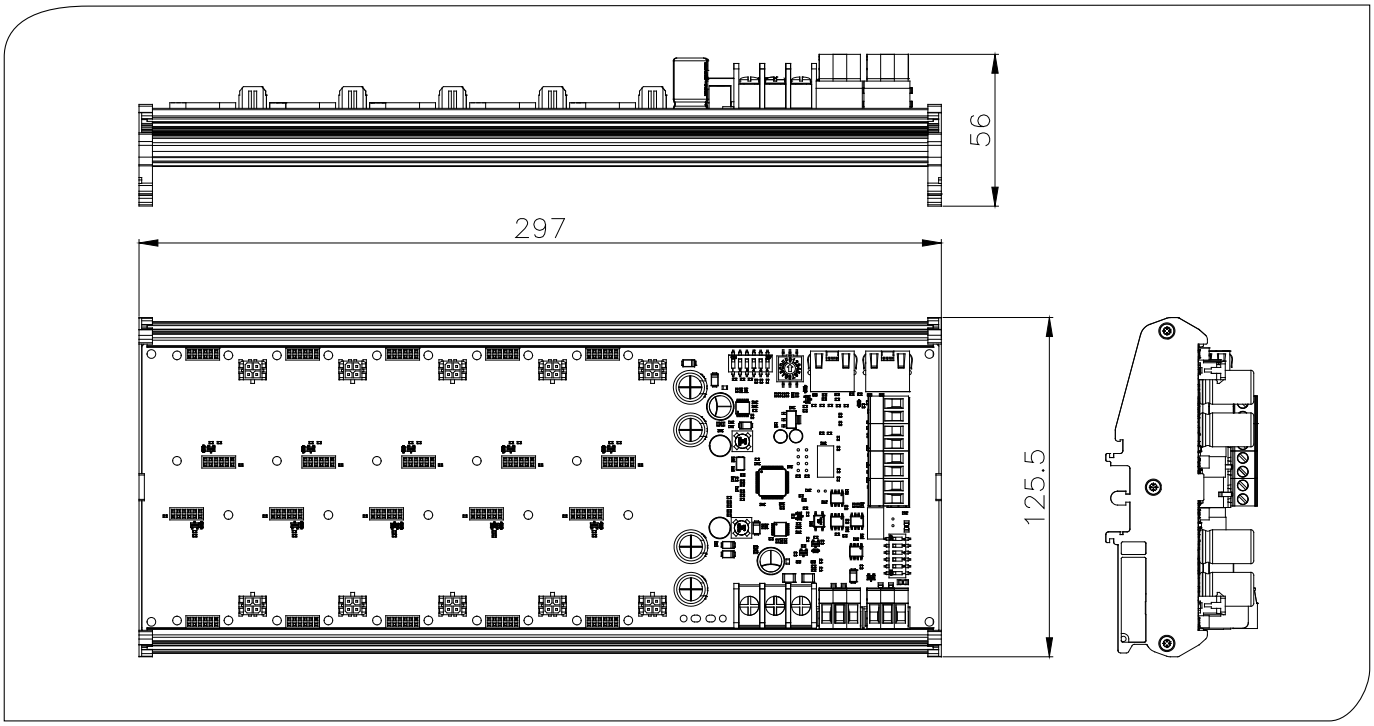

Pancake External Conveyor Motor

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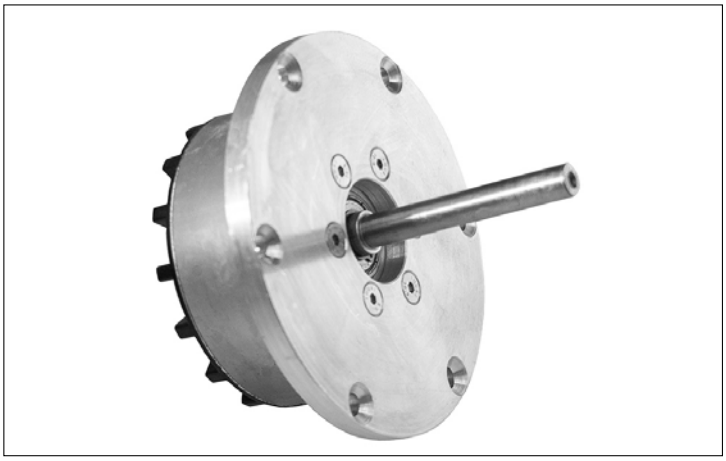
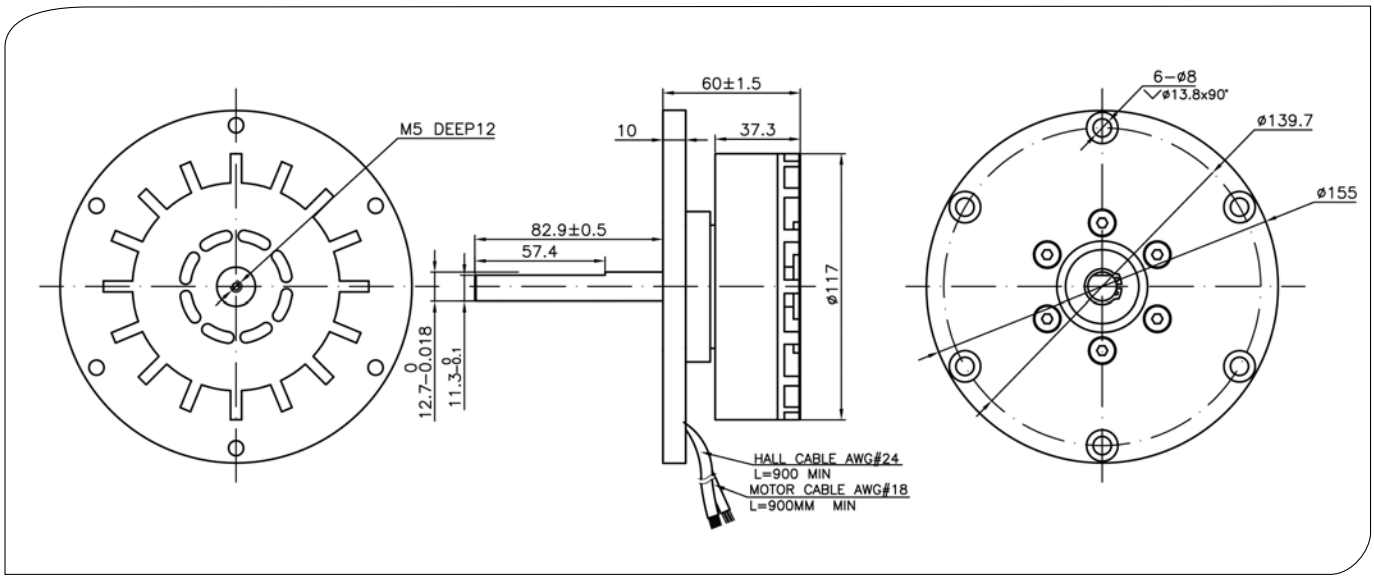
General Information

- Used For Roller System
- Reliable and Durable Operation
- Low Noise



Specification

Model	Voltage	No-load Speed	No-load Current	Inductance	Power	Ke	Rated Torque	Rated Speed	Stall Current	Poles
	(V)	(RPM)	(A)	(mH)	(W)	(V/KRPM)	(Nm)	(RPM)	(A)	
MBF120AS104	24	550±10%	0.3	1.5	99	32	3.4	280	24	26

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