



MyActuator RMD-L Series Servo Motor User Manual

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RMD-LSeries Product Manual

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RMD-L Series Servo Motor

Brushless DC Servo Motor designed to deliver exceptional performance with its high torque and fast rotation speed. With its advanced technology and seamless integration of motor and drive, this servo motor offers unparalleled precision and efficiency in various industrial applications.

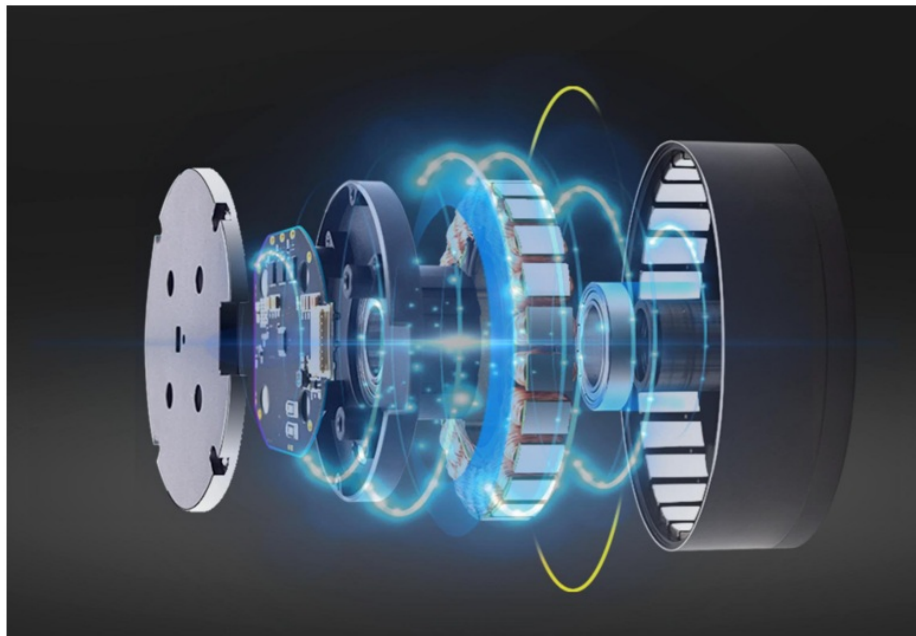


Our servo motor with high-performance bearings, to withstand pressure, wear, and shocks. With advanced manufacturing techniques, this motor reduces noise and friction during operation while maintaining high speed. It also exhibits excellent hardness and durability.



With Integrated Mechanical and Electrical Design

Equipped with built-in drive and position sensors, this motor offers powerful performance and enhanced stability. With its efficient heat dissipation system, it ensures a longer lifespan for uninterrupted usage.



The built-in drive allows for smooth operation while the position sensors provide accurate feedback for precise control. Whether you're in need of high power output or reliable stability, our motor delivers on both fronts.

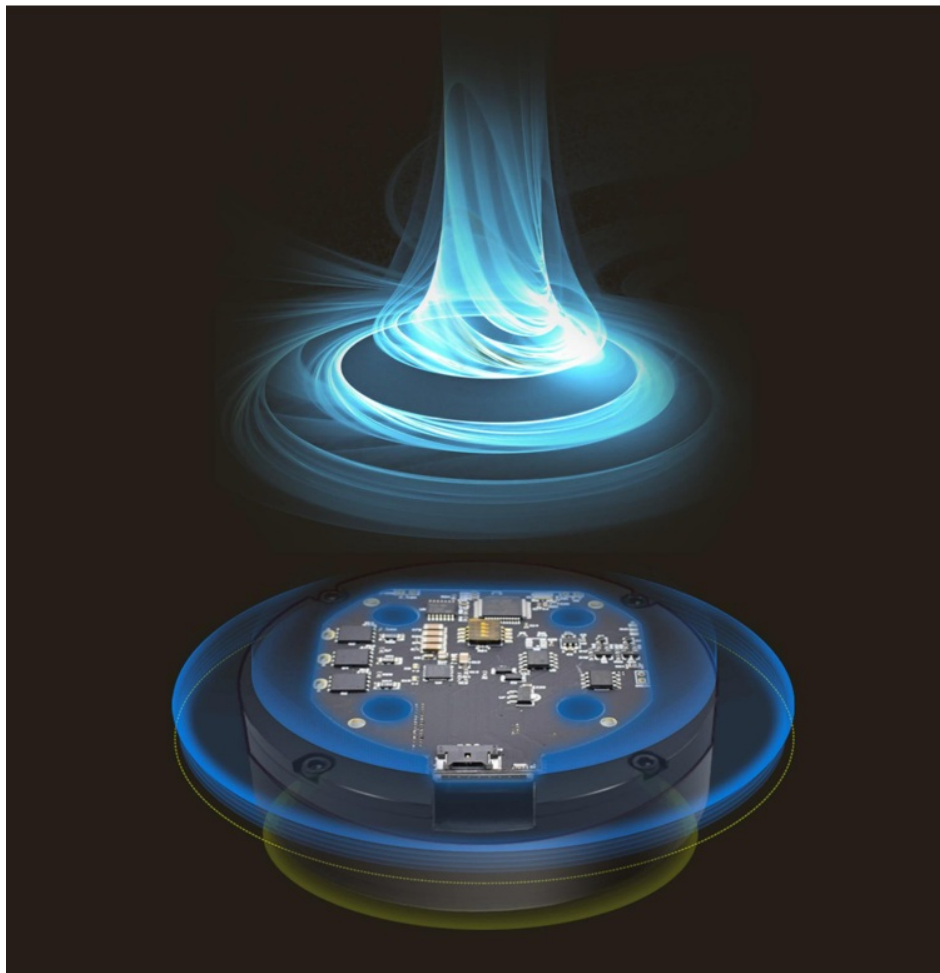
Its exceptional heat dissipation capability ensures that even during prolonged use, preventing any potential damage caused by overheating.

Our motor with multiple protection features and an intelligent chip for enhanced safety. It supports temperature sensor. This means that you can easily monitor the temperature in real-time, allowing you to make informed decisions regarding your operations or take necessary actions promptly if needed.

Furthermore, we prioritize safety by multiple protection mechanisms such as overload protection, overcurrent protection, external battery, overvoltage protection and short circuit protection. This guarantees optimal performance while safeguarding both equipment and personnel.

More Stable | More Durable | More Precise

Featuring high-precision alloy resistive sampling technology, our motor ensures accurate current control like never before. Experience safety and silence with precise control. With its advanced design and engineering, this motor guarantees stability, durability, and precision in use. The high-precision alloy resistive sampling enables precise current regulation, ensuring optimal efficiency and accuracy in all your operations.

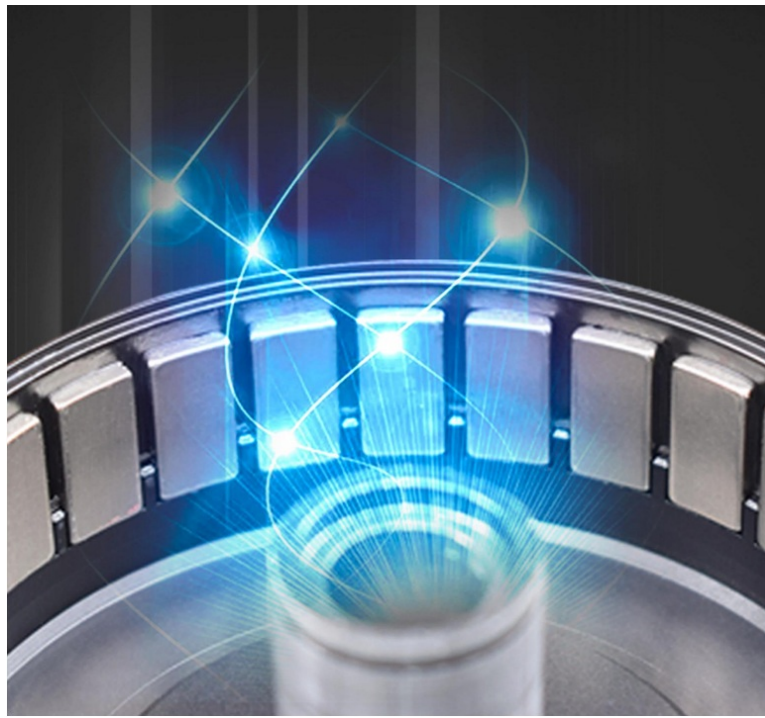


High-performance Neodymium Iron Boron Permanent Magnets

Rotor designed in an arc shape, these magnets offer a smaller air gap and higher coercivity, resulting in greater torque output.

The use of neodymium iron boron permanent magnets ensures exceptional performance and efficiency. By reducing the air gap between the magnet and armature, our motor achieves improved power transmission and enhanced torque capabilities.

Its high coercivity allows for precise control over speed and acceleration while maintaining stability under heavy loads.



Supervisory Control and Data Acquisition System

Not only does our integrated servo motor excel in performance, but it also boasts easy installation and user-friendly programming options. With intuitive interfaces and comprehensive software support, configuring the motor to suit your requirements.

Plus, it supports direct command transmission from microprocessors. Experience seamless operation like never before.

With real-time data retrieval capabilities, you can monitor your operations effortlessly. Effortlessly navigate through commands by utilizing the user-friendly interface of our motor's supervisory control system. Send commands directly without any hassle or delay, ensuring efficient communication between devices.



Various Applications

The superior hardness of our servo motor guarantees long-lasting durability under various working conditions. Additionally, the high-speed capabilities enable rapid response times for enhanced productivity. Its high torque capability allows for precise control over heavy loads while maintaining smooth motion.

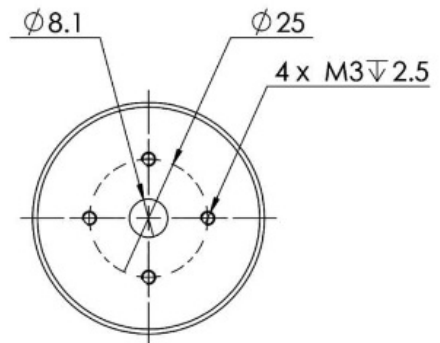
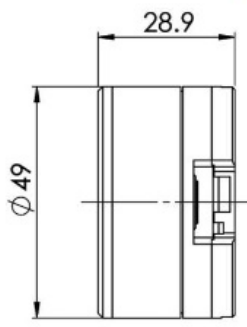
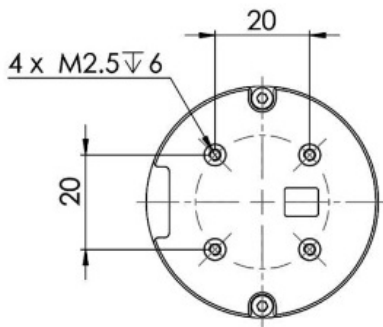
Featuring a compact design and robust construction, this servo motor ensures reliable operation even in demanding environments, our servo motor is engineered to meet your specific needs.

With its advanced technology and superior performance, our electric motor is suitable for various applications such as industrial machinery, robotics, automotive systems, and more. Trust in its reliability to meet your specific needs. Whether you need precise control in robotics or automation systems or seek a reliable solution for industrial machinery, our servo motor offers the perfect combination of high performance and durability.



RMD-L-5010-35T

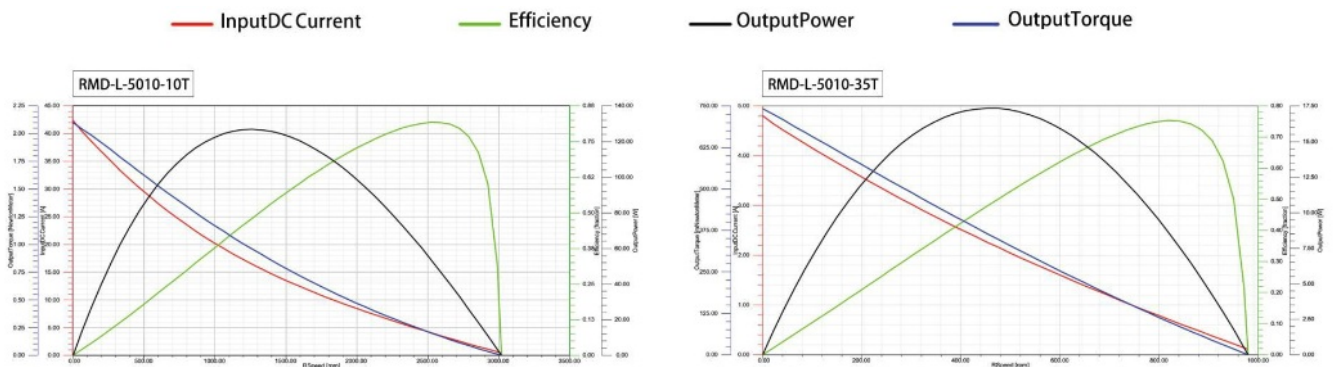
INSTALLATION DRAWING



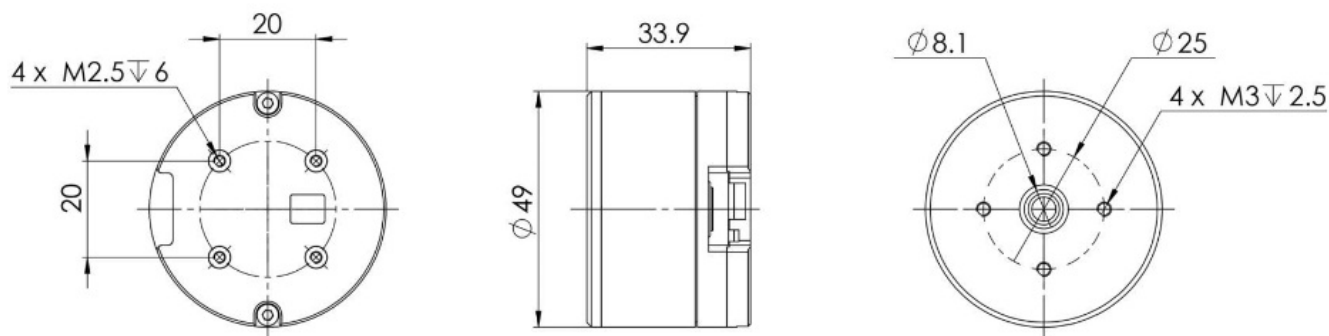
PRODUCT PARAMETERS

Item Name	RMD-L-5010-10T	RMD-L-5010-35T
Nominal Voltage V	16	16
Nominal Current A	5.06	1.65
Nominal Torque N.M	0.26	0.26
Nominal Speed rpm	2400	600
Max Speed rpm	3050	1015
Max Instant Torque N.M	0.4	0.65
Max Instant Current A	8	4.8
Line Resistance Ω	0.33	3.2
Wire Connect	Y	Y
Phase to Phase Inductance mH	0.13	1.2
Speed Constant rpm/v	191	63
Torque Constant N.M/A	0.05	0.16
Rotor Inertia gc m²	202	202
Number of Pole Pairs	14	14
Motor Weight g	135	135
Working Temperature °C	(-20 ~ 80 °C)	
Max Demagnetize Temperature °C	120°C	
Matched Driver	Matched Driver	
Drive	DRC06	
Input Voltage V	8~24	
Current A	Normal : 5A Instant: 8A	
Normminal Power W	100	
Communication	RS-485 /CAN BUS	
Encoder	14-bit magnetic encoder	
Baut Rate	9600、19200、57600、115200(default)	
Communication frequency	CAN BUS @1MBPS: 2KHZ ; RS485@ 115200BPS:500HZ	
Control frequency	Torque loop:24KHZ / Speed loop:8KHZ / Position loop :4KHZ	
control mode	Torque loop(current loop) / speed loop/position loop	
S-Curve	YES	
ID switch	YES	
connector	ZH1.5 /6PIN	
connector	YES	

MOTOR CHARACTERISTIC CURVE



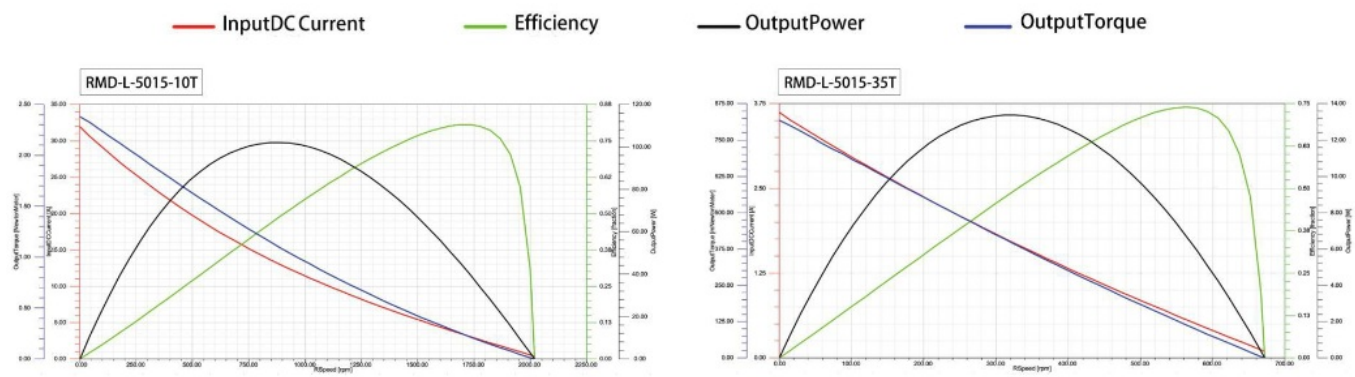
INSTALLATION DRAWING



PRODUCT PARAMETERS

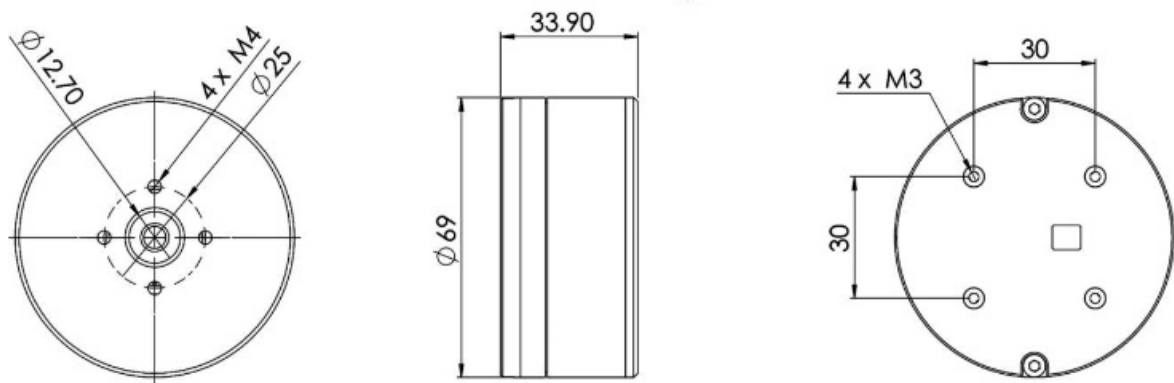
【Item Name】	RMD-L-5015-10T	RMD-L-5015-35T
【Nominal Voltage】 V	16	16
【Nominal Current】 A	4.9	1.57
【Nominal Torque】 N.M	0.38	0.36
【Nominal Speed】 rpm	1550	350
【Max Speed】 rpm	2040	680
【Max Instant Torque】 N.M	0.7	0.82
【Max Instant Current】 A	8	3.62
【Line Resistance】 Ω	0.48	4
【Wire Connect】	Y	Y
【Phase to Phase Inductance】 mH	0.19	1.76
【Speed Constant】 rpm/v	128	43
【Torque Constant】 N.M/A	0.08	0.23
【Rotor Inertia】 gc m²	268	268
【Number of Pole Pairs】	14	14
【Motor Weight】 g	174	174
【Working Temperature】 °C	(-20 ~ 80 °C)	
【Max Demagnetize Temperature】 °C	120°C	
Matched Driver		Matched Driver
【Drive】	DRC06	
【Input Voltage】 V	8~24	
【Current】 A	Normal : 5A Instant: 8A	
【Normminal Power】 W	100	
【Communication】	RS-485 /CAN BUS	
【Encoder】	14-bit magnetic encoder	
【Baut Rate】	9600、19200、57600、115200(default)	
【Communication frequency】	CAN BUS @1MBPS: 2KHZ ; RS485@ 115200BPS:500HZ	
【Control frequency】	Torque loop:24KHZ / Speed loop:8KHZ / Position loop :4KHZ	
【control mode】	Torque loop(current loop) / speed loop/position loop	
【S-Curve】	YES	
【ID switch】	YES	
【connector】	ZH1.5 /6PIN	
【connector】	YES	

MOTOR CHARACTERISTIC CURVE



RMD-L-7015-23T

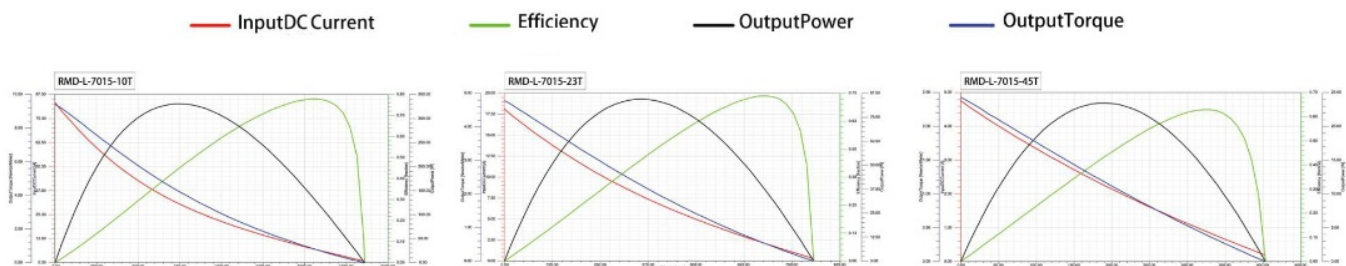
INSTALLATION DRAWING



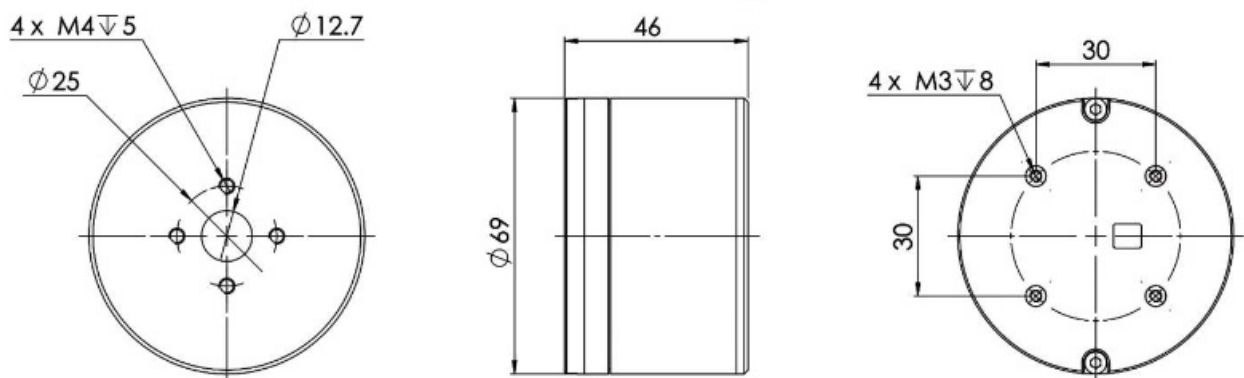
PRODUCT PARAMETERS

【Item Name】	RMD-L-7015-10T	RMD-L-7015-23T	RMD-L-7015-45T
【Nominal Voltage】 V	24	24	24
【Nominal Current】 A	8.30	3.62	1.93
【Nominal Torque】 N.M	1.00	1.00	0.99
【Nominal Speed】 rpm	1500	580	220
【Max Speed】 rpm	1890	805	410
【Max Instant Torque】 N.M	2	3.8	2.42
【Max Instant Current】 A	15.00	15.00	4.75
【Line Resistance】 Ω	0.28	1.14	3.90
【Wire Connect】	Y	Y	Y
【Phase to Phase Inductance】 mH	0.24	1.25	4.83
【Speed Constant】 rpm/v	79	34	17
【Torque Constant】 N.M/A	0.12	0.28	0.51
【Rotor Inertia】 $gc\ m^2$	933	933	933
【Number of Pole Pairs】	14	14	14
【Motor Weight】 g	360	360	360
【Working Temperature】 $^{\circ}C$	(-20 ~ 80 $^{\circ}C$)		
【Max Demagnetize Temperature】 $^{\circ}C$	120 $^{\circ}C$		
驱动器 Matched Driver	适配驱动器 Matched Driver		
【Drive】	DRC10		
【Input Voltage】 V	8~36		
【Current】 A	Normal : 8A Instant: 15A		
【Normminal Power】 W	200		
【Communication】	RS-485 /CAN BUS		
【Encoder】	14-bit magnetic encoder		
【Baut Rate】	9600、19200、57600、115200(default)		
【Communication frequency】	CAN BUS @1MBPS:2KHZ ; RS485@115200BPS:500HZ		
【Control frequency】	Torque loop:24KHZ / Speed loop:8KHZ / Position loop :4KHZ		
【control mode】	Torque loop(current loop) / speed loop/position loop		
【S-Curve】	YES		
【ID switch】	YES		
【connector】	ZH1.5 /8PIN		
【connector】	YES		

MOTOR CHARACTERISTIC CURVE



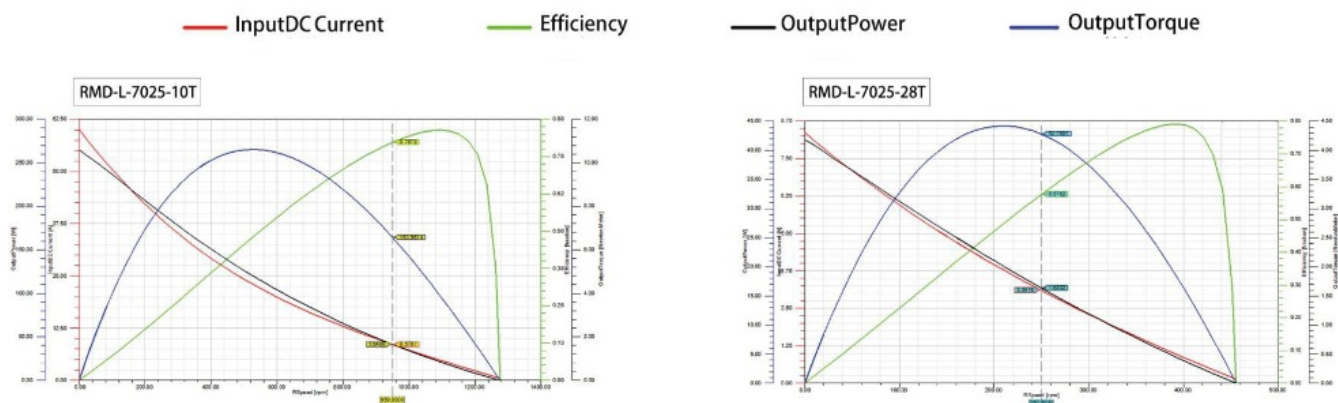
RMD-L-7025-28T INSTALLATION DRAWING



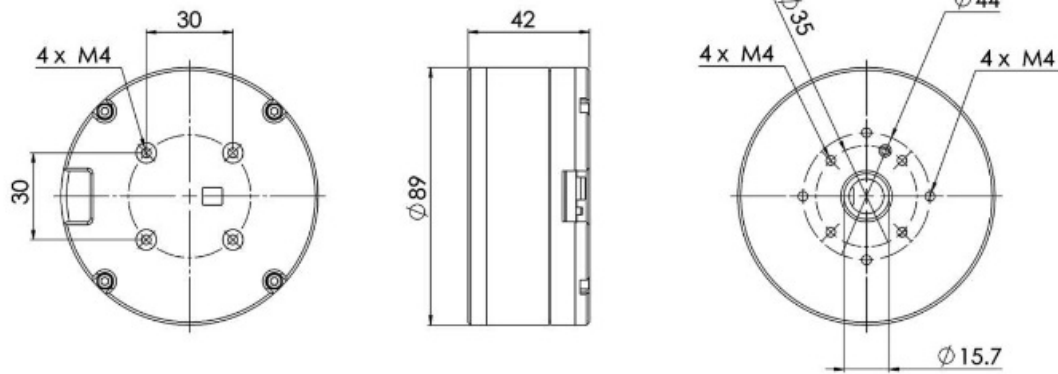
PRODUCT PARAMETERS

[Item Name]	RMD-L-7025-10T	RMD-L-7025-28T
[Nominal Voltage] V	24	24
[Nominal Current] A	8.30	3.00
[Nominal Torque] N.M	1.60	1.60
[Nominal Speed] rpm	1500	280
[Max Speed]] rpm	1890	510
[Max Instant Torque] N.M	9.4	4.1
[Max Instant Current] A	83.00	8.50
[Line Resistance] Ω	0.28	2.20
[Wire Connect]	Y	Y
[Phase to Phase Inductance] mH	0.24	2.95
[Speed Constant] rpm/v	79	21
[Torque Constant] N.M/A	0.19	0.53
[Rotor Inertia] gc m ²	933	1040
[Number of Pole Pairs]	14	14
[Motor Weight] g	360	540
[Working Temperature] °C	(-20 ~ 80 °C)	
[Max Demagnetize Temperature] °C	120°C	
Matched Driver		Matched Driver
[Drive]	DRC10	
[Input Voltage] V	8~36	
[Current] A	Normal : 8A Instant: 15A	
[Normminal Power] W	200	
[Communication]	RS-485 /CAN BUS	
[Encoder]	14-bit magnetic encoder	
[Baut Rate]	9600、19200、57600、115200(default)	
[Communication frequency]	CAN BUS @1MBPS: 2KHZ ; RS485@115200BPS:500HZ	
[Control frequency]	Torque loop:24KHZ / Speed loop:8KHZ / Position loop :4KHZ	
[control mode]	Torque loop(current loop) / speed loop/position loop	
[S-Curve]	YES	
[ID switch]	YES	
[connector]	ZH1.5 /8PIN	
[connector]	YES	

MOTOR CHARACTERISTIC CURVE



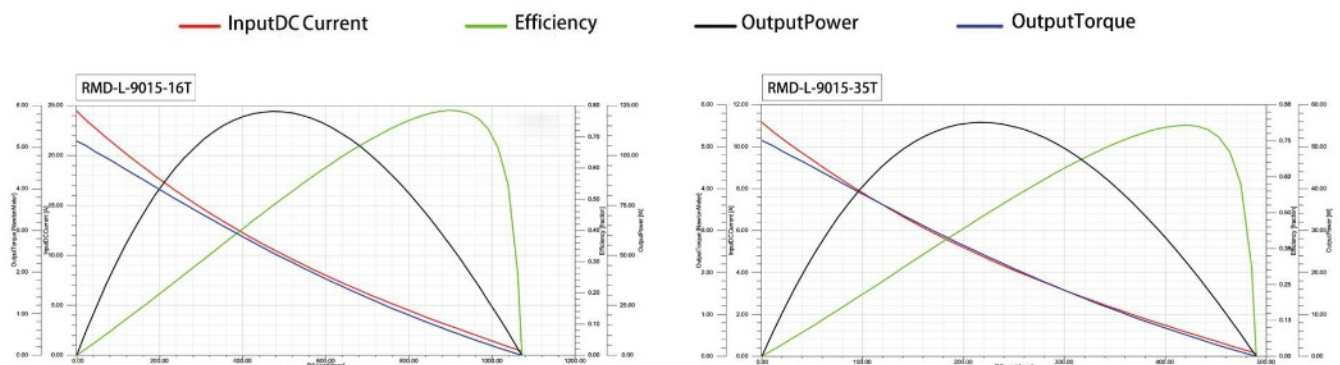
RMD-L-9015-16T INSTALLATION DRAWING



PRODUCT PARAMETERS

【Item Name】	RMD-L-9015-16T	RMD-L-9015-35T
【Nominal Voltage】 V	24	24
【Nominal Current】 A	7.03	3.34
【Nominal Torque】 N.M	1.64	1.67
【Nominal Speed】 rpm	780	290
【Max Speed】 rpm	1085	500
【Max Instant Torque】 N.M	3.4	5
【Max Instant Current】 A	15.00	11.00
【Line Resistance】 Ω	0.35	1.51
【Wire Connect】	Y	Y
【Phase to Phase Inductance】 mH	0.65	1.05
【Speed Constant】 rpm/v	45	21
【Torque Constant】 N.M/A	0.20	0.45
【Rotor Inertia】 gc m²	3271	3271
【Number of Pole Pairs】	14	14
【Motor Weight】 g	650	650
【Working Temperature】 °C	(-20 ~ 80 °C)	
【Max Demagnetize Temperature】 °C	120°C	
Matched Driver	Matched Driver	
【Drive】	DRC10	
【Input Voltage】 V	8~36	
【Current】 A	Normal : 8A Instant: 15A	
【Normminal Power】 W	200	
【Communication】	RS-485 /CAN BUS	
【Encoder】	14-bit magnetic encoder	
【Baut Rate】	9600、 19200、 57600、 115200(default)	
【Communication frequency】	CAN BUS @1MBPS: 2KHZ ; RS485@ 115200BPS:500HZ	
【Control frequency】	Torque loop:24KHZ / Speed loop:8KHZ / Position loop :4KHZ	
【control mode】	Torque loop(current loop) / speed loop/position loop	
【S-Curve】	YES	
【ID switch】	YES	
【connector】	ZH1.5 /8PIN	
【connector】	YES	

MOTOR CHARACTERISTIC CURVE



RMD-L-Series Servo Motor

A Highly Integrated Power Output Module

The L-Series Servo Motor is a cutting-edge product designed to meet your power output needs. This motor module offers three key components: a high-performance FOC driver, a high-power density brushless motor, and a high-precision absolute position encoder.

Suitable for medium to high-speed scenarios ranging from 20RPM to 250RPM, the L-Series Servo Motor provides exceptional performance and reliability. Its advanced features ensure smooth operation and precise control in various applications.

Experience seamless motion control with our state-of-the-art FOC driver that optimizes torque efficiency while minimizing energy consumption. The integrated brushless motor delivers impressive power density, allowing for compact designs without compromising on performance.

Whether you're looking to optimize industrial automation processes or enhance robotics systems, the L-Series Servo Motor is your go-to solution for efficient power output. Trust in its superior integration capabilities and enjoy unparalleled performance in demanding environments.

The main application scenarios:

- Mechanical arm
- Manipulator
- Lead screw drive
- 3D printing
- PTZ/Pan-tilt head
- Turntable
- Inspection robot

Revolutionizing Traditional Distributed Design


Experience a breakthrough in product design with innovative L-Series Servo Motor.

By breaking away from traditional distributed design, this cutting-edge motor enables a simpler and more streamlined structure for your end products. With enhanced internal wiring, you can enjoy effortless connectivity and improved overall performance.

The L-Series Servo Motor is designed to meet the demands of modern industries, offering unparalleled stability and reliability. Its advanced technology ensures smooth operation and precise control, allowing for seamless integration into various applications.

With its sleek and compact design, the L-Series Servo Motor not only optimizes space utilization but also simplifies installation processes. Say goodbye to complex wiring systems as this motor provides convenient internal wire routing options that save time and effort during assembly.

Documents / Resources

	<p>MyActuator RMD-L Series Servo Motor [pdf] User Manual</p> <p>RMD-L-9015-16T, RMD-L Series Servo Motor, RMD-L Series, Servo Motor, Motor</p>
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References

- [User Manual](#)

Manuals+. Privacy Policy

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