

Compact, Efficient, Safe and Professional

Promote the New Process of Specialized Integrated Servo for Robots

Product Selection Manual

EtherCAT[®]



R910-S Series Multi-axis Integrated Servo Driver for Robots (220V, Aviation Plug Type)

R920-S Series Multi-axis Integrated Servo Driver for Robots (220V, Terminal Type)

R920-T Series Multi-axis Integrated Servo Driver for Robots (380V, Terminal Type)



R910-S Series

(220V, Aviation Plug Type)

Multi-axis Integrated Servo Driver for Robots

The R910-S series high power density servo driver is a high-performance multi-axis bus-type (EtherCAT) servo IO all-in-one machine, with first-class power density in the industry; this product has an IP20 protection rating, and can easily reach IP54 protection when matched with the electrical cabinet IO terminal protective cover; it innovatively realizes wireless cable harness inside the cabinet, the cabinet efficiency can be increased by an order of magnitude, greatly improving the reliability of the electrical cabinet and reducing the cost of the electrical cabinet.



R910-S Series

01

High Power Density

The integrated multi-axis compact design improves space utilization, enabling the smallest electrical cabinet installation in the industry and higher power density.

02

Wireless Harness in Cabinet

Innovative design enables hard-wiring inside the cabinet, eliminating most cables such as servo power output, encoder, brake, and IO, reducing cabinet costs and improving reliability.

03

Safe and Reliable

Built-in advanced application functions such as dynamic braking and STO (Safe Torque Off), equipped with interface for safety application circuits like robot emergency stop, enable, safety switch, and light curtain.

04

Flexible Protection

The driver has IP20 protection, and can easily achieve IP54 protection level when matched with the electrical cabinet IO terminal protective cover.

05

Exclusive Algorithm

Special algorithm for robot-specific scenarios, eliminating end jitter and achieving higher trajectory accuracy.

06

Optional IO Interface

Standard dual-channel Safe Torque Off IO, standard 16DI/DO, expandable to 32DI/DO, eliminating the need for conventional IO boards in the electrical cabinet.



Naming convention

R910-S6A08□

Identification	Product Description
R910	High-density Servo Drive for Robots
.....	Other Series Servo Drives

Identification	Voltage Class
S	Single-phase AC220V

Identification	Identification
4	4 Axes
6	6 Axes

Identification	Maximum Current per Axis
5	Rated Current per Axis 5A
8	Rated Current per Axis 8.5A

Identification	Axis Configuration
A~Z	Model differentiation, see selection table for details

Selection List

Product Model	Rated Voltage	Rated Current per Axis (Unit: Arms)					
		Axis 1	Axis 2	Axis 3	Axis 4	Axis 5	Axis 6
R910-S6A05	220V	5	5	5	5	5	5
R910-S6A08	220V	8	8	5	5	5	5
R910-S4A05	220V	5	5	5	5	/	/
R910-S4A08	220V	8	5	5	5	/	/
R910-S4B08	220V	8	8	5	5	/	/
R910-S4C08	220V	8	8	8	5	/	/
R910-S4D08	220V	8	8	8	8	/	/

Note: The above are partial model displays. If you need to know more models, please contact MT-Drive technical support personnel.

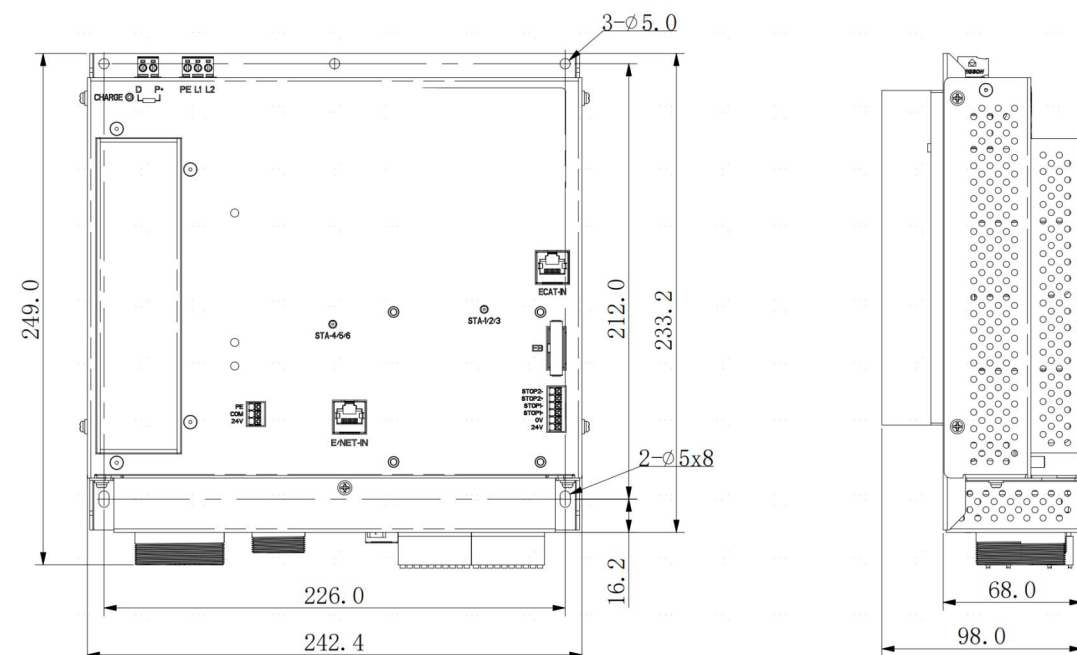


Technical Specifications

Category	Item	Description
Basic Functions	Voltage Class	Single-phase AC220V
	Power Range	50W~3.8kW
	Dynamic Braking	Standard with 220V drive
	Debugging Software	iMoto_Studio
	Brake Power Input	24V Brake Power Input
	Brake Power Output	When the motor brake current is $\leq 1.5A$, it can directly drive the motor brake without a relay; when the motor brake current $> 1.5A$, an external relay drives the motor brake
	Brake Resistor Interface	Connect brake resistor
	Indicator Light	Power CHARGE
	Through Network Port	Reserved for control, without LED, 1 external, 1 internal, RJ45 shield
Bus	Control Mode	Supports speed, position, torque and hybrid control modes to meet the requirements of control flexibility in different application environments
IO Interface	DI/DO	Standard 16DI/DO, expandable to 32DI/DO, supports EtherCAT bus call
Debug Interface	Power Output Port	IP54 aviation plug, power output is female header
	Encoder Port	IP54 aviation plug, female header
	Debug Interface	USB Type-C interface, EtherNet port, PANEL debug keyboard connection port
Communication Interface	EtherCAT IN	Minimum communication cycle 125us; transmission cable length up to 100 meters; supports 100Mbps full-duplex operation
	EtherCAT OUT	(Same as EtherCAT IN description)
Safety Interface	STO Interface + Safety Circuit	Safety torque terminal block
Installation Method	Structure	Sheet metal shell + basic aluminum profile heat sink
	Installation	Through-wall installation, independent air duct
	Heat Dissipation Method	Forced air cooling
Environment	Operating Temperature	-10℃~45℃
	Humidity	10%~90% RH (No condensation)
	Storage Temperature	-20℃~65℃
	Storage Humidity	10%~90% RH (No condensation)
	Altitude	Below 1000m
	Protection Class	Drive body IP20, IP54 after cabinet protection
Compliance	Certification	CE, RoHS

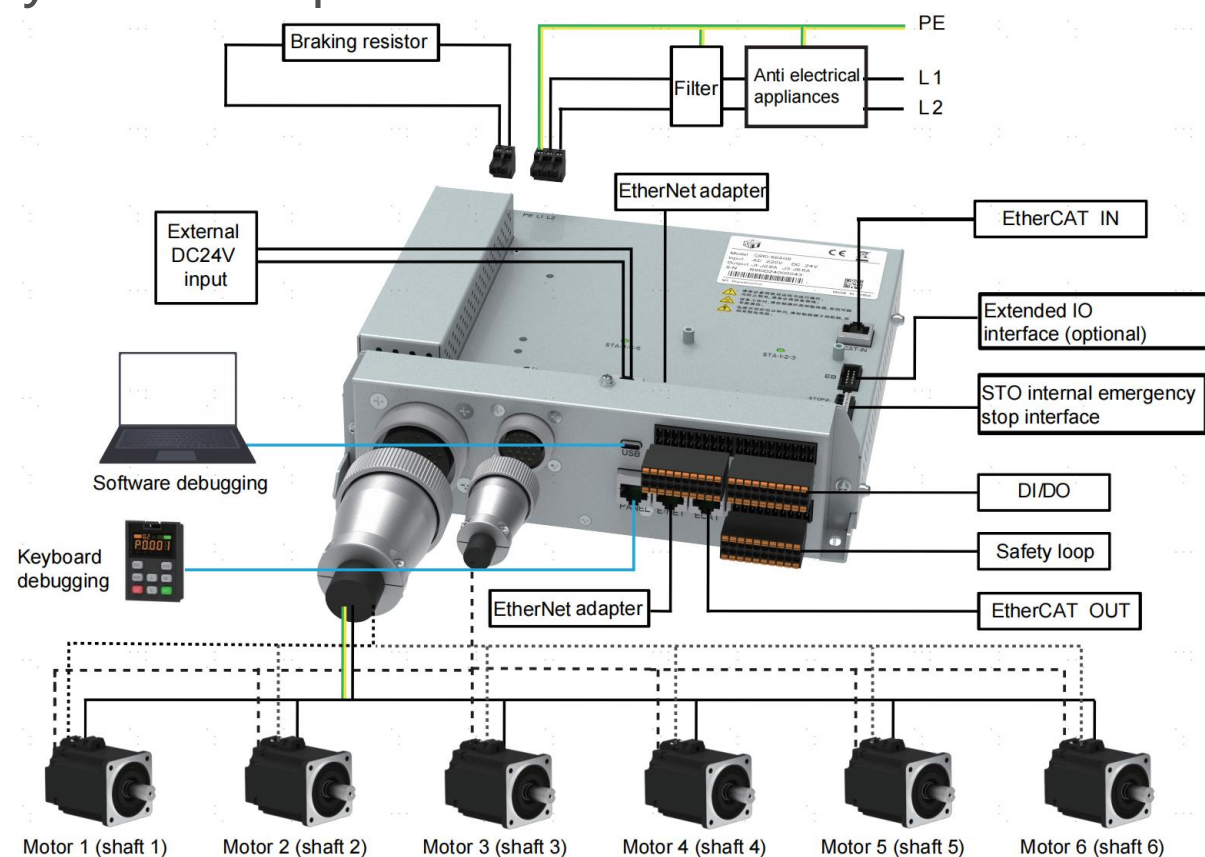
R910-S series six axis integrated servo drive

AC220V single axis rated current 5A/8A



R910 - S6A05 / S6A08 Overall Dimension Drawing

System Composition



Product Specifications

Model		R910-S6A05	R910-S6A08
Technical Parameter			
Motor Output	Continuous/Maximum Output Shaft Current	Axis 1	5A /15A
		Axis 2	5A /15A
		Axis 3	5A /15A
		Axis 4	5A /15A
		Axis 5	5A /15A
		Axis 6	5A /15A
Axis Safety Brake	Output Voltage/Maximum Current	24V Max1.5A*	
Input Power Supply	Number of Phases/Voltage	Single-phase AC220V (-15%~+10%)	
	AC Voltage Frequency Range	50/60Hz	
	Input Capacity	5kVA	
Regenerative Braking Specification	Maximum Braking Power	7.4kW	
	Regenerative Braking Action Voltage	DC385V	
	Recommended Brake Resistor Specification	20~30Ω (1kW)	

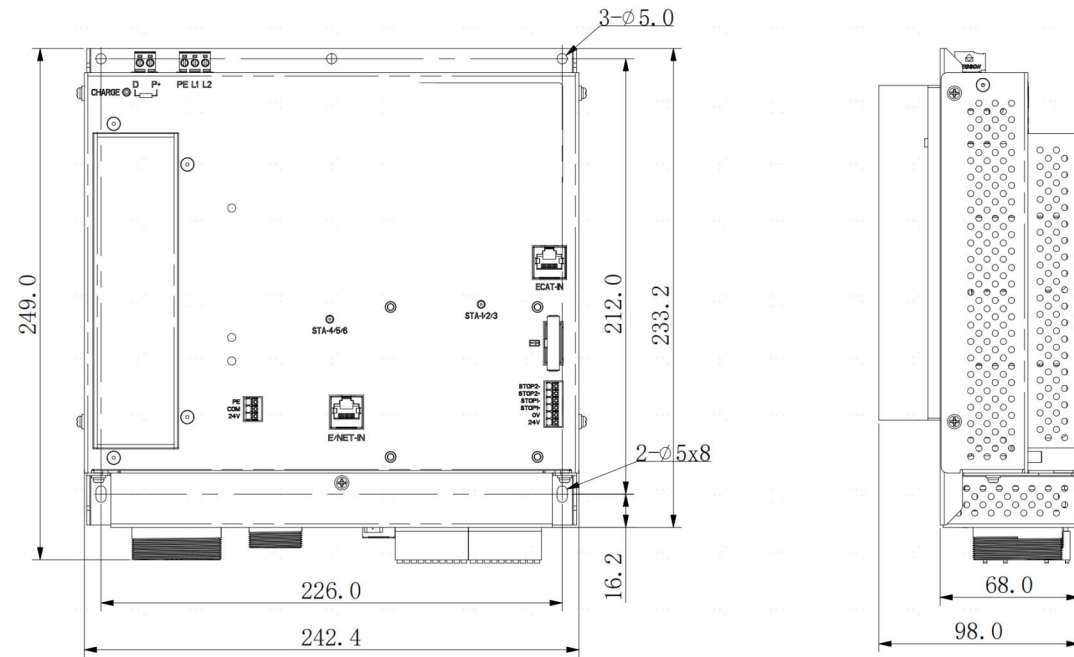
*When the motor brake current is greater than 1.5A or the sum of the six axis brake currents is greater than 6A, an external relay is required to drive the motor brake

Product accessories

Serial Number	Standard Components	Quantity	Description
1	DI Interface Connector	1	2*10P Plug-in Terminal
2	DO Interface Connector	1	2*10P Plug-in Terminal
3	Safety Door Connector	1	2*10P Plug-in Terminal
4	Brake Resistor Connector	1	2P Plug-in Terminal
5	Motor/Brake Interface Connector	1	31P Aviation Plug
6	Encoder Interface Connector	1	19P Aviation Plug

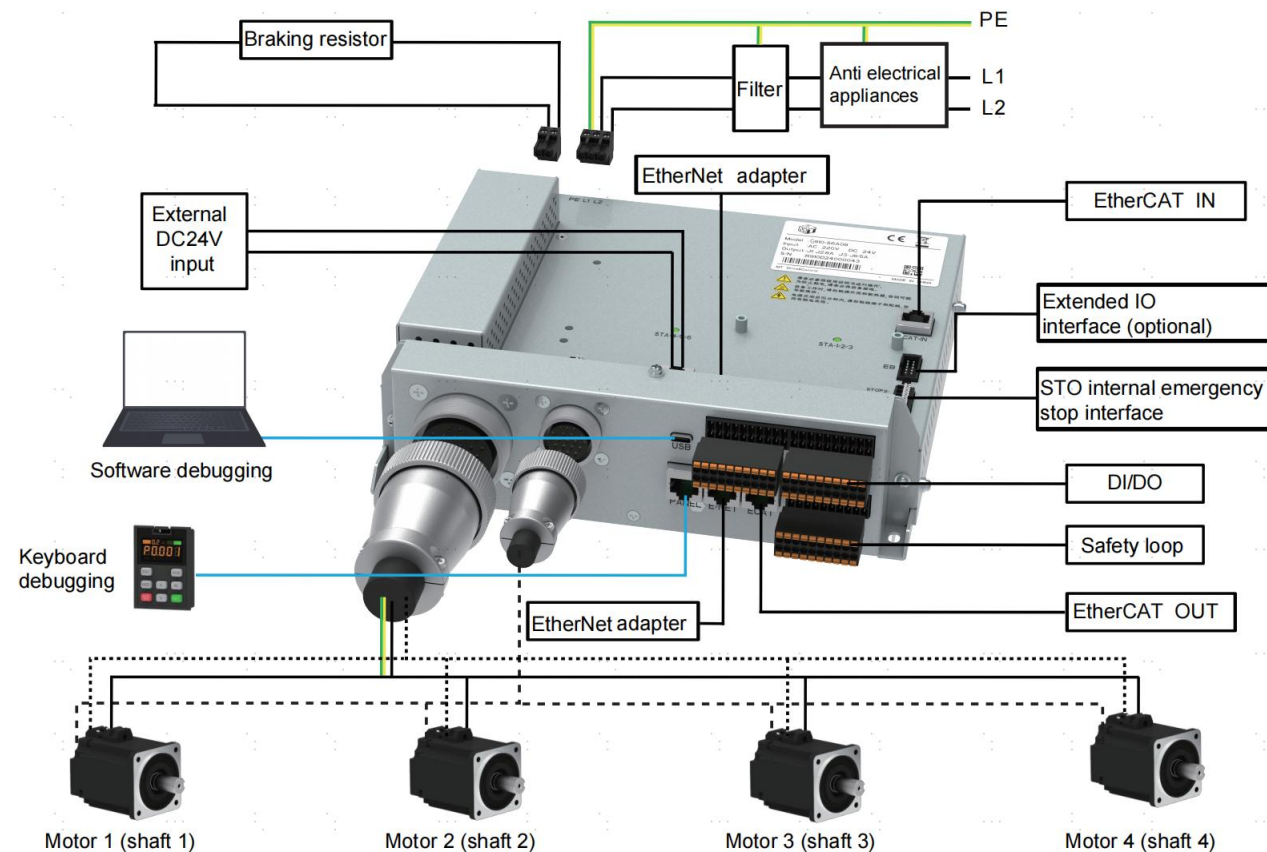
R910-S series four axis integrated servo drive

AC220V single axis rated current 5A/8A



R910 - S4A05 / S4A08 / S4B08 / S4C08 / S4D08 Overall Dimension Drawing

System Composition



Product Specifications

Model			R910-S4A05	R910-S4A08	R910-S4B08	R910-S4C08	R910-S4D08
Technical Parameters							
Motor Output	Continuous/Maximum Output Shaft Current	Axis 1	5A/15A	8A/24A	8A/24A	8A/24A	8A/24A
		Axis 2	5A/15A	5A/15A	8A/24A	8A/24A	8A/24A
		Axis 3	5A/15A	5A/15A	5A/15A	8A/24A	8A/24A
		Axis 4	5A/15A	5A/15A	5A/15A	5A/15A	8A/24A
Axis Safety Brake	Output Voltage/Maximum Current	24V Max1.5A					
Input Power Supply	Number of Phases/Voltage	Single-phase AC220V (-15%~+10%)					
	AC Voltage Frequency Range	50/60Hz					
	Input Capacity	5kVA					
Regenerative Braking Specification	Maximum Braking Power	7.4kW					
	Regenerative Braking Action Voltage	DC385V					
	Recommended Brake Resistor Specification	20~30Ω (1kW)					

Product accessories

Serial Number	Standard Components	Quantity	Description
1	DI Interface Connector	1	2*10P Plug-in Terminal
2	DO Interface Connector	1	2*10P Plug-in Terminal
3	Safety Door Connector	1	2*10P Plug-in Terminal
4	Brake Resistor Connector	1	2P Plug-in Terminal
5	Motor/Brake Interface Connector	1	31P Aviation Plug
6	Encoder Interface Connector	1	19P Aviation Plug

R920-S Series

(220V Terminal type)

Robot specific multi axis integrated servo drive

R920-T Series

(380V Terminal type)

Robot specific multi axis integrated servo drive

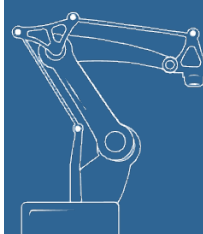


R920-S Series



R920-T Series

The R920 series robot specific servo drive is a high-performance multi axis integrated machine designed for all robot scenarios. Compared with multi axis modular servo drives, it is more compact and compact in structure. The 6-axis integrated servo is only the size of one A4 paper (taking 6-axis 750W as an example). The model has rich power combinations and can cover the needs of robots ranging from 1.5kg to 1500kg. It supports multiple robot types such as SCARA, Delta, 4-axis palletizing, and 6-joint, and supports mainstream EtherCAT communication protocol, which is widely applicable to various robot bus applications.



safe and reliable

220V comes standard with dynamic braking, 380V external dynamic braking is optional, and STO safety torque is turned off.



Easy debugging

Various debugging tools such as PC and network are available on the upper computer, and the system has parameter identification function, which can be used by simply debugging simple parameters to improve efficiency.



Compact structure

Flat multi axis integrated structure, independent air duct, wall penetrable installation, high environmental resistance, suitable for different types of electrical cabinets, and more compact installation.



high-speed response

The transmission speed can reach 100Mbps, the communication cycle can be as short as 125us, and it supports mainstream EtherCAT bus communication protocol.



rich interfaces

Brake drive interface;
Standard 16DI/DO interface;
Safety circuit interface (emergency stop, safety door, safety enable, etc.).



Easy Installation

Plug and unplug quick terminals, easy to disassemble and assemble, tool free, easy to maintain, reducing repair costs.



Naming convention

R920-T6A25□

Identification	Product Description
R 920	Servo Drive for Robots (Terminal Type)
.....	Other Series Servo Drives

Identification	Voltage Class
S	Single-phase/Three-phase AC220V
T	Three-phase AC380V

Identification	Number of Axes
4	4 Axes
6	6 Axes

Identification	Maximum Current per Axis
5	Maximum Rated Current 5A
6	Maximum Rated Current 6A
8	Maximum Rated Current 8.5A
12	Maximum Rated Current 12A
15	Maximum Rated Current 15A
20	Maximum Rated Current 20A
25	Maximum Rated Current 25A
35	Maximum Rated Current 35A

Identification	Axis Configuration
A~Z	Model Differentiation, See Option Table for Details

Selection List

Product Model	Rated Voltage	Rated Current per Axis (Unit: Arms)					
		Axis 1	Axis 2	Axis 3	Axis 4	5 轴	Axis 6
R920-S Series Multi-axis Integrated Servo Driver for Robots (220V Terminal Type)							
R920-S6A05	220V	5	5	5	5	5	5
R920-S6A08	220V	8	8	5	5	5	5
R920-S6A15	220V	15	15	5	5	5	5
R920-S6B15	220V	15	15	8	5	5	5
R920-S6C15	220V	15	15	15	5	5	5
R920-S4A05	220V	5	5	5	5	/	/
R920-S4A08	220V	8	5	5	5	/	/
R920-S4B08	220V	8	8	5	5	/	/
R920-S4C08	220V	8	8	8	5	/	/
R920-S4A15	220V	15	15	5	5	/	/
R920-S4B15	220V	15	15	15	5	/	/
R920-S4C15	220V	15	15	8	5	/	/
R920-T Series Multi-axis InteRated Servo Driver for Robots (380V Terminal Type)							
R920-T6C12	380V	12	12	12	6	6	6
R920-T6A20	380V	20	20	20	6	6	6
R920-T6A25	380V	25	25	25	12	12	12
R920-T6A35	380V	35	35	25	20	20	12
R920-T4A25	380V	25	25	12	6	/	/
R920-T4B25	380V	25	25	25	6	/	/
R920-T4C25	380V	25	25	25	12	/	/

Note: The above are partial model displays. If you need to know more models, please contact MT-Drive technical support personnel.

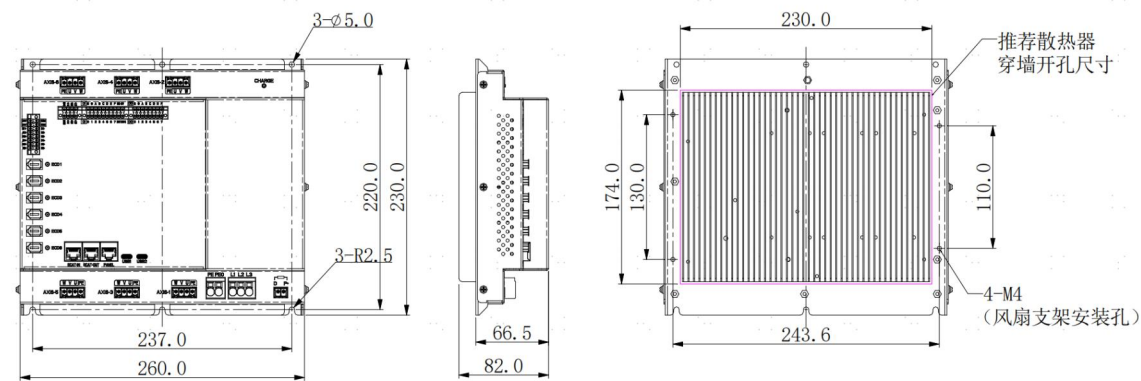


Technical Specifications

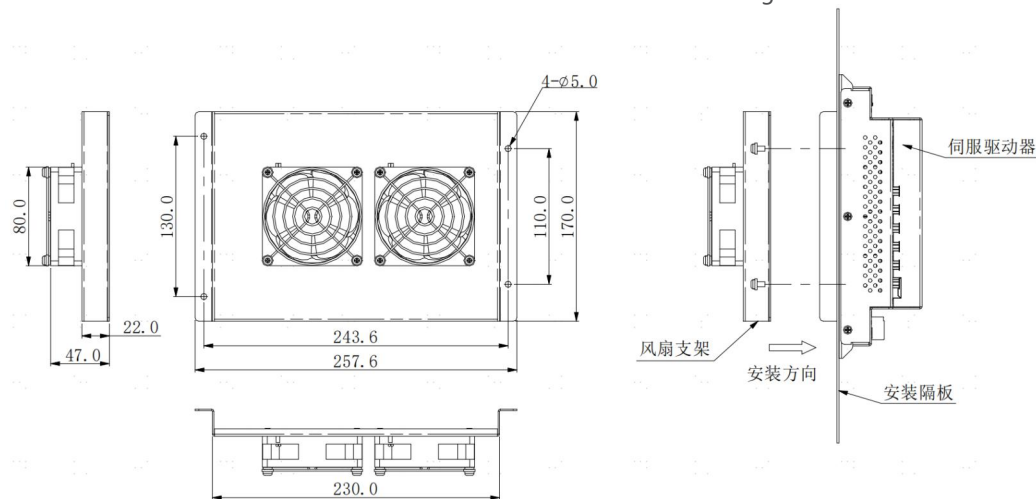
Category	Item	Description
Basic Functions	Voltage Class	Single-phase/Three-phase AC220V, Three-phase AC380V
	Power Range	50W~18.5kW
	Dynamic Braking	Built-in dynamic braking for 220V models, optional external dynamic braking for 380V models
	Debugging Software	iMoto_Studio
	Brake Power Input	24V Brake Power Input
	Brake Power Output	When the motor brake current is $\leq 1.5A$, it can directly drive the motor brake without a relay; when the motor brake current $> 1.5A$, an external relay drives the motor brake
	Brake Resistor Interface	Connect brake resistor
Bus	Control Mode	Supports speed, position, torque and hybrid control modes to meet the requirements of control flexibility in different application environments
IO Interface	DI/DO	Standard 16DI/DO, supports EtherCAT bus call
Debug Interface	Power Output Port	IP20 Power Output in two types: 220V/380V
	Encoder Port	Connects to motor encoder
	Debug Interface	USB Type-C interface, PANEL debug keyboard connection port
Communication Interface	EtherCAT IN	Minimum communication cycle 125us; transmission cable length up to 100 meters; supports 100Mbps full-duplex operation
	EtherCAT OUT	
Safety Interface	STO Interface + Safety Circuit	Safety torque terminal block
Installation Method	Structure	Sheet metal shell + basic aluminum profile heat sink
	Installation	Through-wall installation, independent air duct
	Heat Dissipation Method	Forced air cooling
Environment	Operating Temperature	-10℃~45℃
	Humidity	10%~90% RH (No condensation)
	Storage Temperature	-20℃~65℃
	Storage Humidity	10%~90% RH (No condensation)
	Altitude	Below 1000m
Compliance	Protection Class	Drive body IP20, IP54 after cabinet protection
	Certification	CE, RoHS

R920-S series six axis integrated servo drive

AC220V single axis rated current 5A/8A



R920 - S6A05 / S6A08 Overall Dimension Drawing



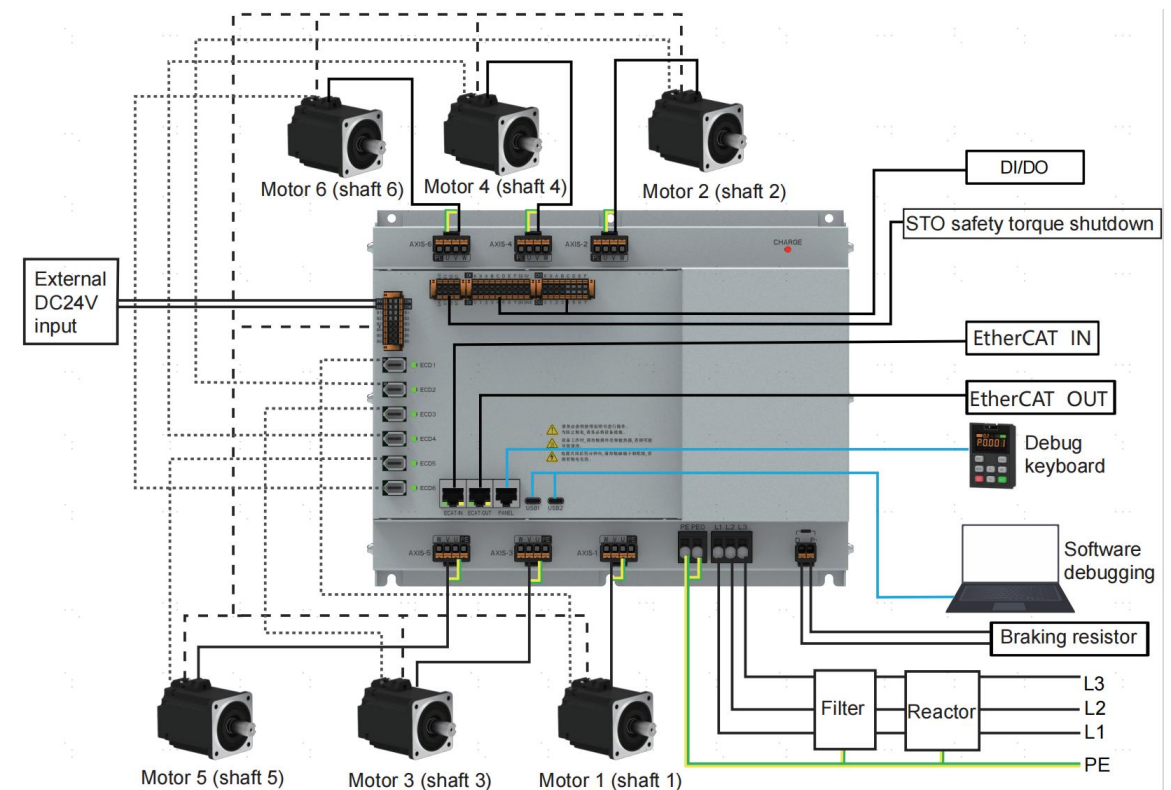
Fan bracket kit (optional)
Recommended model: 8025, speed $\geq$ 3500RPM

Product accessories

Serial Number	Standard Components	Quantity	Description
1	Motor Interface Connector	6	Recommended wire diameter range: 0.75 - 1.5mm, tube terminal length 10mm.
2	Brake Interface Connector	1	Recommended tube terminal length 10mm;
3	DI Interface Connector	1	Wire diameter range: 0.2 - 1.5mm;
4	DO Interface Connector	1	24V input wire diameter is 1.0mm, other wire diameters are 0.5mm;
5	Safety Circuit Connector	1	Recommended 24V tube pre-insulated terminal model: E1010, others: E0510.
6	Encoder Interface Connector	6	/
7	Brake Resistor Connection Terminal	1	Recommended wire diameter range: 1.0 - 1.5mm, tube terminal length 10mm.
8	Power Interface Connector	1	Recommended wire diameter range: 1.5 - 2.5mm, tube terminal length 12mm.
9	Ground Interface Connector	1	Recommended wire diameter range: 1.5 - 2.5mm, tube terminal length 12mm.

Note: IO control terminals, encoder interface terminals, and power line terminals must use the standard configuration terminals provided in our product packaging box.

System Composition



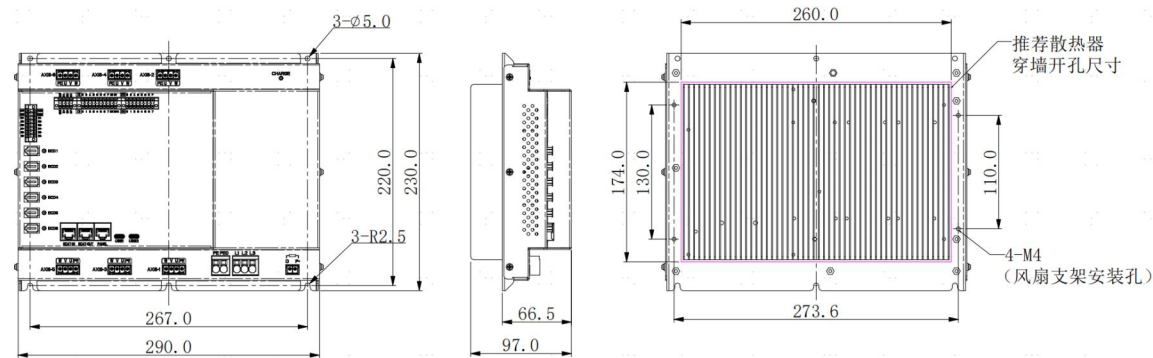
Product Specifications

Model			R920-S6A05	R920-S6A08
Technical Parameters				
Motor Output	Continuous/Maximum	Axis 1	5A/15A	8A/24A
		Axis 2	5A/15A	8A/24A
		Axis 3	5A/15A	5A/15A
		Axis 4	5A/15A	5A/15A
		Axis 5	5A/15A	5A/15A
		Axis 6	5A/15A	5A/15A
Axis Safety Brake	Output Voltage/Maximum Current		24V Max1.5A*	
Input Power Supply	Number of Phases/Voltage		Single phase AC220V/Three phase AC220V (-15%~+10%) (Connected through L1/L3 terminals for single-phase input)	
	AC Voltage Frequency Range		50/60Hz	
	Input Capacity		5kVA	
Regenerative Braking Specification	Maximum Braking Power		7.4kW	
	Regenerative Braking Action Voltage		DC385V	
	Recommended Brake Resistor Specification		20~30Ω (1kW)	

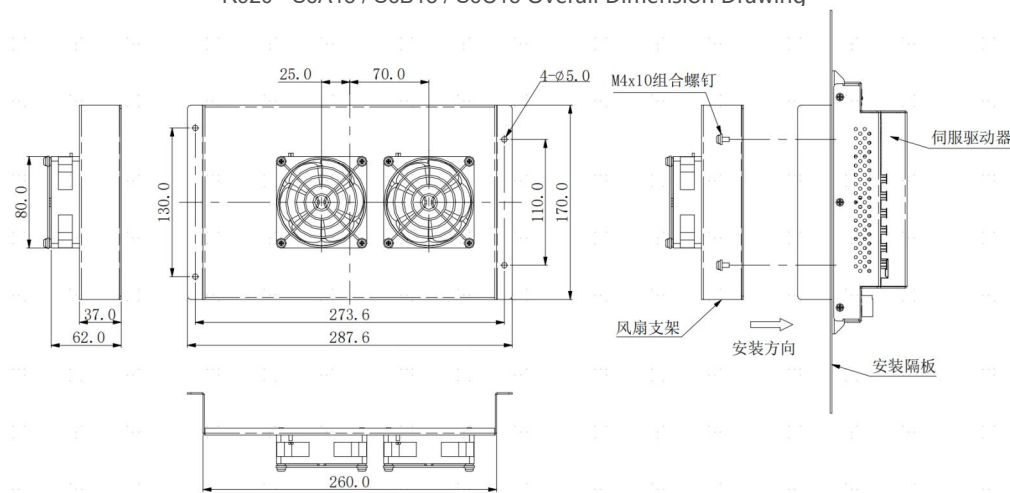
*When the motor brake current is greater than 1.5A or the sum of the six axis brake currents is greater than 6A, an external relay is required to drive the motor brake

R920-S series six axis integrated servo drive

AC220V single axis rated current 15A



R920 - S6A15 / S6B15 / S6C15 Overall Dimension Drawing



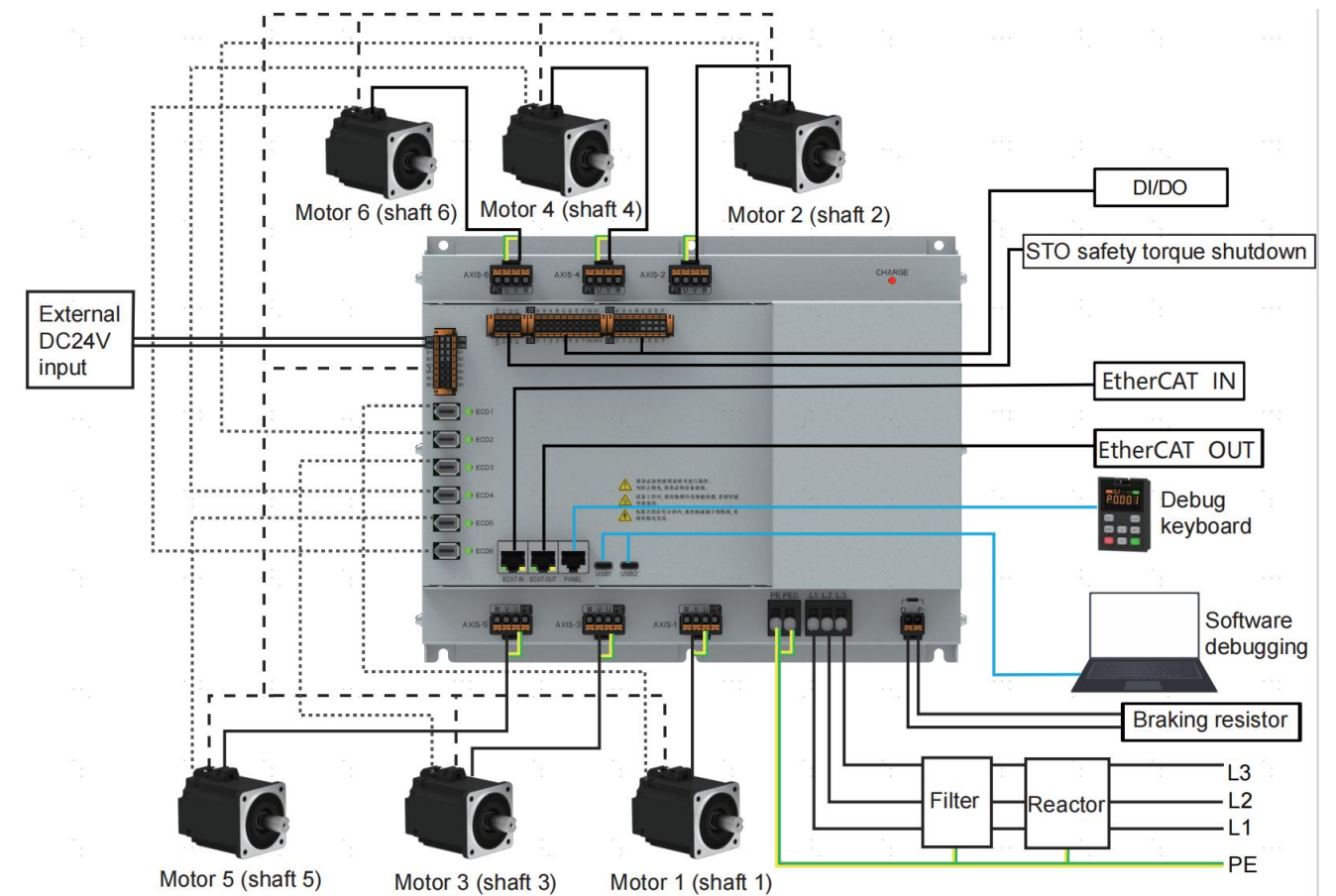
Fan bracket kit (optional)
Recommended fan model: 8025, speed $\geq 3500\text{RPM}$

Product accessories

Serial Number	Standard Components	Quantity	Description
1	Motor Interface Connector	6	Recommended wire diameter range: 0.75 - 2.5mm, tube terminal length 10mm.
2	Brake Interface Connector	1	Recommended tube terminal length 10mm;
3	DI Interface Connector	1	Wire diameter range: 0.2 - 1.5mm;
4	DO Interface Connector	1	24V input wire diameter is 1.0mm, other wire diameters are 0.5mm;
5	Safety Circuit Connector	1	Recommended 24V tube pre-insulated terminal model: E1010, others: E0510.
6	Encoder Interface Connector	6	/
7	Brake Resistor Connection Terminal	1	Recommended wire diameter range: 1.5 - 2.5mm, tube terminal length 10mm.
8	Power Interface Connector	1	Recommended wire diameter range: 2.5 - 4.0mm, tube terminal length 12mm.
9	Ground Interface Connector	1	Recommended wire diameter range: 1.5 - 2.5mm, tube terminal length 12mm.

Note: IO control terminals, encoder interface terminals, and power line terminals must use the standard configuration terminals provided in our product packaging box.

System Composition



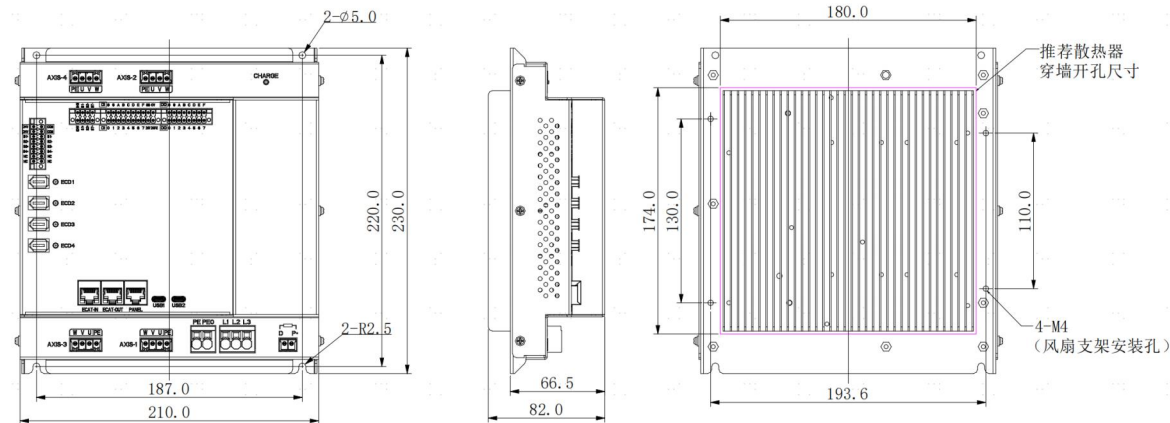
Product Specifications

Model		R920-S6A15	R920-S6B15	R920-S6C15
Technical Parameters				
Motor Output	Continuous/Maximum	Axis 1	15A /45A	15A /45A
		Axis 2	15A /45A	15A /45A
		Axis 3	5A /15A	8A /24A
		Axis 4	5A /15A	5A /15A
		Axis 5	5A /15A	5A /15A
		Axis 6	5A /15A	5A /15A
Axis Safety Brake	Output Voltage/Maximum Current	24V Max1.5A*		
Input Power Supply	Number of Phases/Voltage	Single phase AC220V/Three phase AC220V (-15%~+10%) (Connected through L1/L3 terminals for single-phase)		
	AC Voltage Frequency Range	50/60Hz		
	Input Capacity	7.5kVA		
Regenerative Braking Specification	Maximum Braking Power	7.4kW		
	Regenerative Braking Action Voltage	DC385V		
	Recommended Brake Resistor Specification	20~30Ω (2kW)		

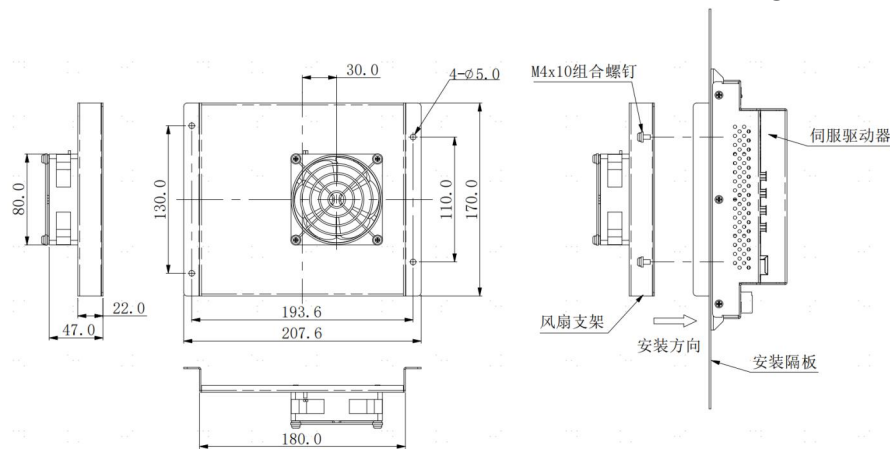
*When the motor brake current is greater than 1.5A or the sum of the six axis brake currents is greater than 6A, an external relay is required to drive the motor brake

R920-S series four axis integrated servo drive

AC220V single axis rated current 5A/8A



R920 - S4A05 / S4A08 / S4B08 / S4C08 Overall Dimension Drawing



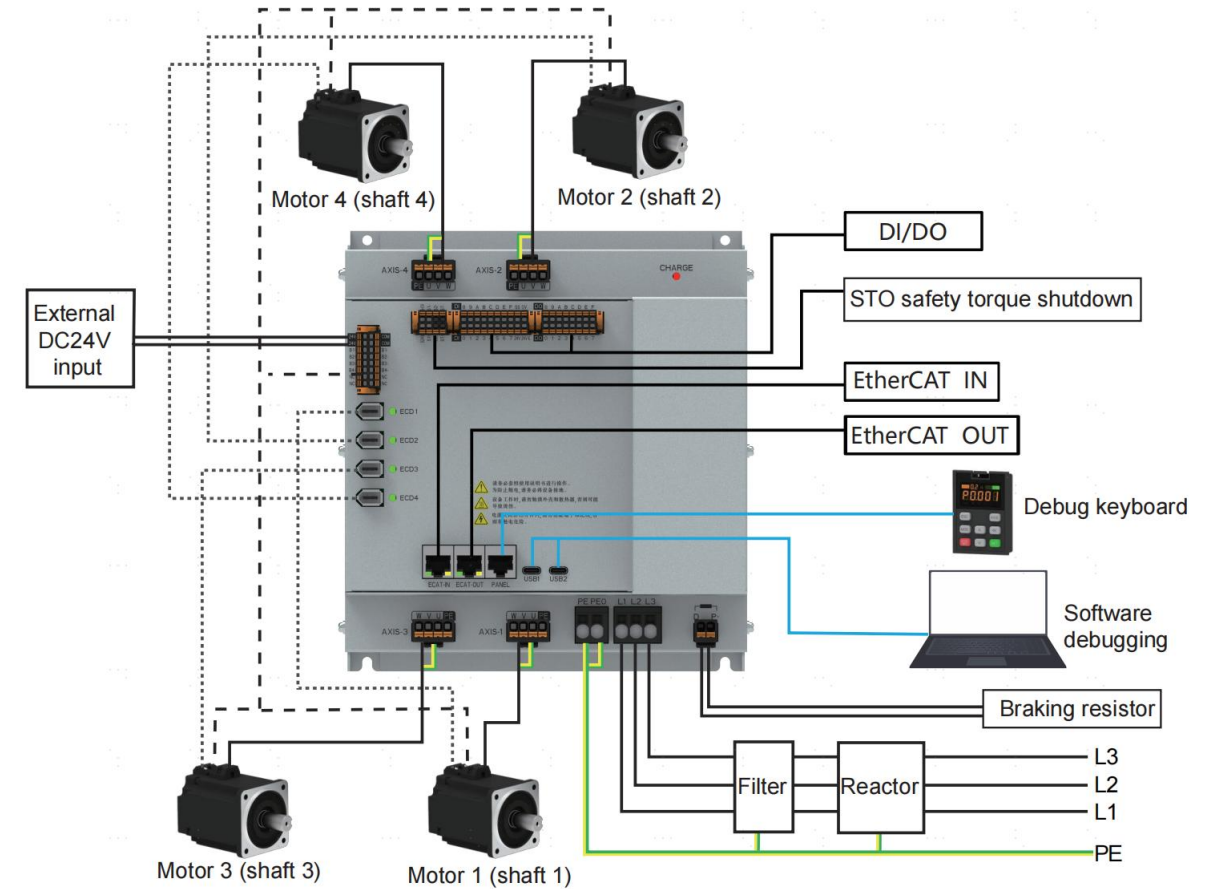
Fan bracket kit (optional)
Recommended fan model: 8025, speed ≥ 3500 RPM

Product accessories

Serial Number	Standard Components	Quantity	Description
1	Motor Interface Connector	4	Recommended wire diameter range: 0.75 - 1.5mm, tube terminal length 10mm.
2	Brake Interface Connector	1	Recommended tube terminal length 10mm;
3	DI Interface Connector	1	Wire diameter range: 0.2 - 1.5mm;
4	DO Interface Connector	1	24V input wire diameter is 1.0mm, other wire diameters are 0.5mm;
5	Safety Circuit Connector	1	Recommended 24V tube pre-insulated terminal model: E1010, others: E0510.
6	Encoder Interface Connector	4	/
7	Brake Resistor Connection Terminal	1	Recommended wire diameter range: 1.0 - 1.5mm, tube terminal length 10mm.
8	Power Interface Connector	1	Recommended wire diameter range: 1.5 - 2.5mm, tube terminal length 12mm.
9	Ground Interface Connector	1	Recommended wire diameter range: 1.5 - 2.5mm, tube terminal length 12mm.

Note: IO control terminals, encoder interface terminals, and power line terminals must use the standard configuration terminals provided in our product packaging box.

System Composition

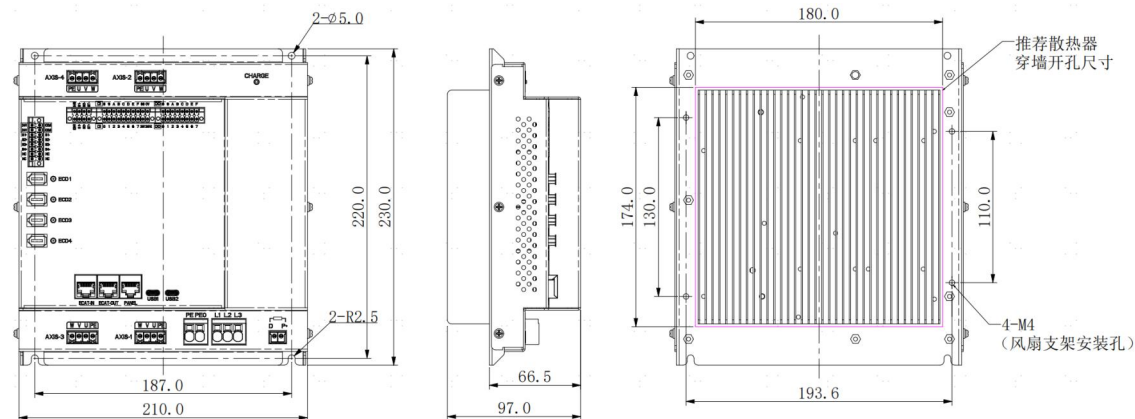


Product Specifications

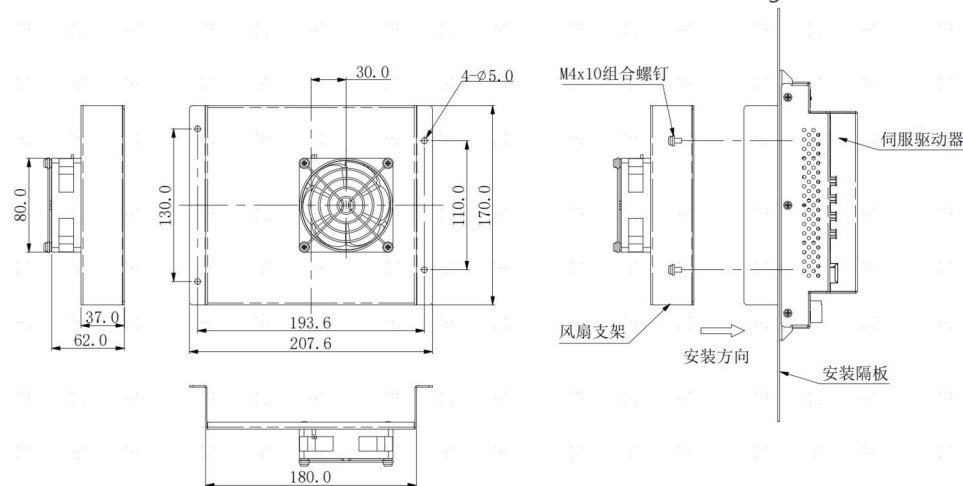
Model			R920-S4A05	R920-S4A08	R920-S4B08	R920-S4C08
Technical Parameters						
Motor Output	Continuous/Maximum	Axis 1	5A /15A	8A /24A	8A /24A	8A /24A
		Axis 2	5A /15A	5A /15A	8A /24A	8A /24A
		Axis 3	5A /15A	5A /15A	5A /15A	8A /24A
		Axis 4	5A /15A	5A /15A	5A /15A	5A /15A
Axis Safety Brake	Output Voltage/Maximum Current		24V Max1.5A			
Input Power Supply	Number of Phases/Voltage		Single phase AC220V/Three phase AC220V (-15%~+10%) (Connected through L1/L3 terminals for single-phase input)			
	AC Voltage Frequency Range		50/60Hz			
	Input Capacity		5kVA			
Regenerative Braking Specification	Maximum Braking Power		7.4kW			
	Regenerative Braking Action Voltage		DC385V			
	Recommended Brake Resistor Specification		20~30Ω (1kW)			

R920-S series four axis integrated servo drive

AC220V single axis rated current 15A



R920 - S4A15 / S4B15 / S4C15 Overall Dimension Drawing



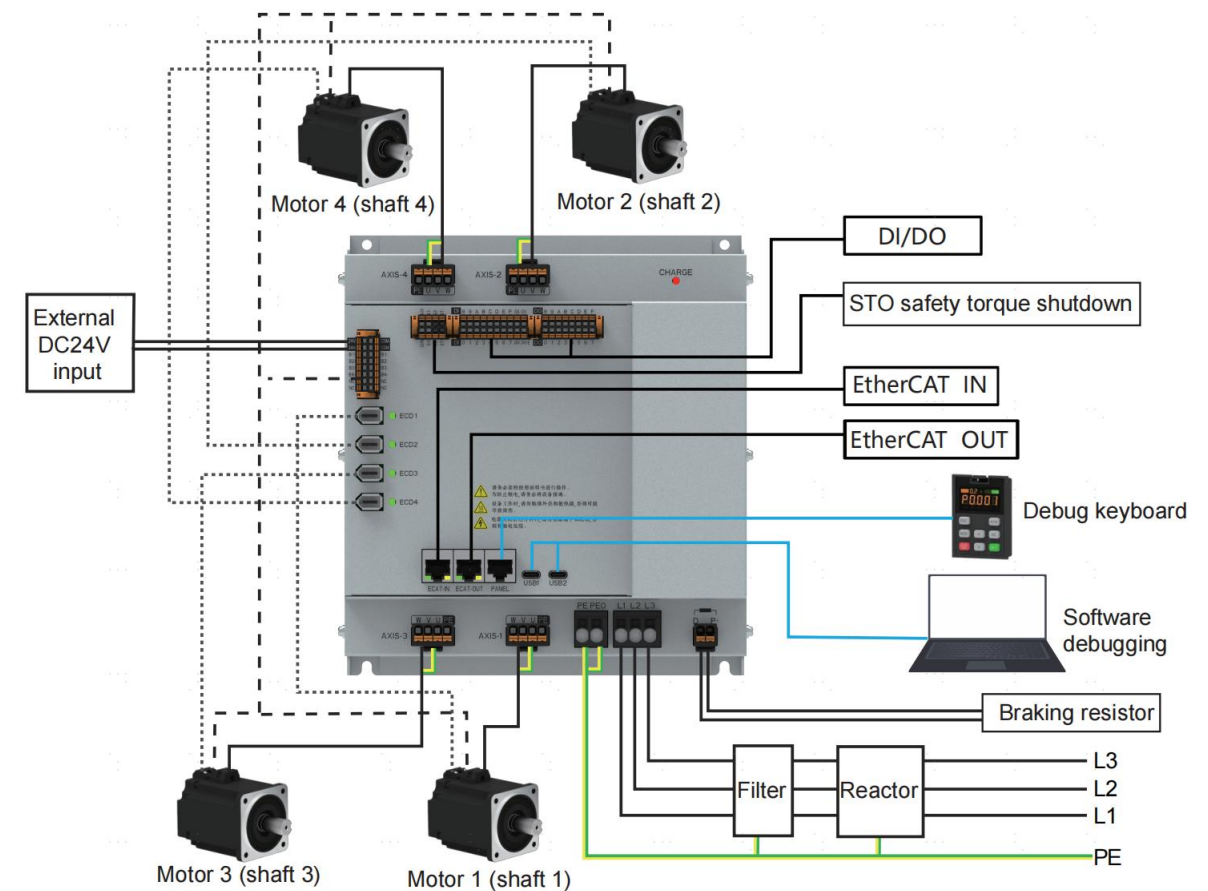
Fan bracket kit (optional)
Recommended fan model: 8025, speed ≥ 3500RPM

Product accessories

Serial Number	Standard Components	Quantity	Description
1	Motor Interface Connector	4	Recommended wire diameter range: 0.75 - 2.5mm, tube terminal length 10mm.
2	Brake Interface Connector	1	Recommended tube terminal length 10mm;
3	DI Interface Connector	1	Wire diameter range: 0.2 - 1.5mm;
4	DO Interface Connector	1	24V input wire diameter is 1.0mm, other wire diameters are 0.5mm;
5	Safety Circuit Connector	1	Recommended 24V tube pre-insulated terminal model: E1010, others: E0510.
6	Encoder Interface Connector	4	/
7	Brake Resistor Connection Terminal	1	Recommended wire diameter range: 1.5 - 2.5mm, tube terminal length 10mm.
8	Power Interface Connector	1	Recommended wire diameter range: 2.5 - 4.0mm, tube terminal length 12mm.
9	Ground Interface Connector	1	Recommended wire diameter range: 2.5 - 4.0mm, tube terminal length 12mm.

Note: IO control terminals, encoder interface terminals, and power line terminals must use the standard configuration terminals provided in our product packaging box.

System Composition

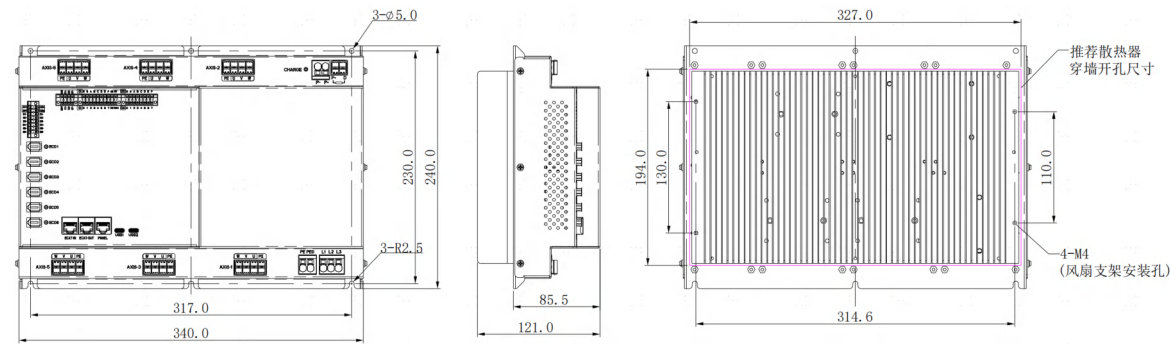


Product Specifications

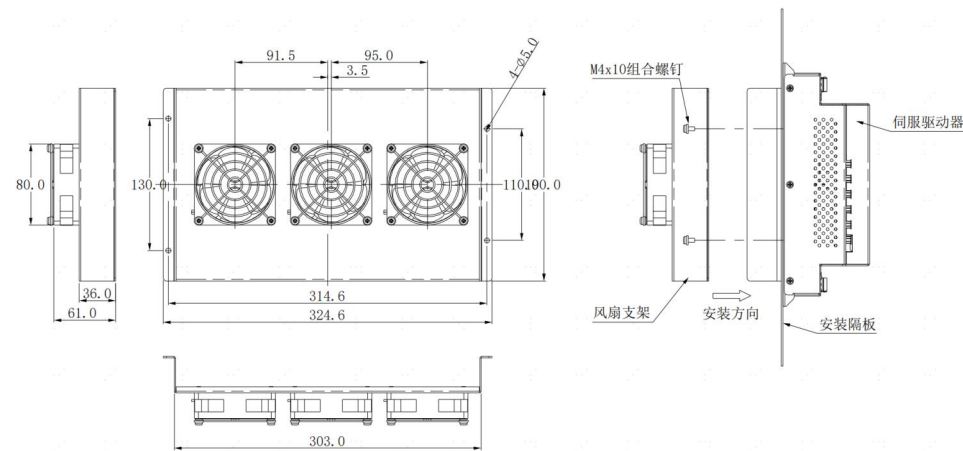
Model			R920-S4A15	R920-S4B15	R920-S4C15
Technical Parameters					
Motor Output	Continuous/Maximum	Axis 1	15A/45A	15A/45A	15A/45A
		Axis 2	15A/45A	15A/45A	15A/45A
		Axis 3	5A/15A	15A/45A	8A/24A
		Axis 4	5A/15A	5A/15A	5A/15A
Axis Safety Brake	Output Voltage/Maximum Current	24V Max1.5A			
Input Power Supply	Number of Phases/Voltage	Single phase AC220V/Three phase AC220V (-15%~+10%) (Connected through L1/L3 terminals for single-phase input)			
	AC Voltage Frequency Range	50/60Hz			
	Input Capacity	7.5kVA			
Regenerative Braking Specification	Maximum Braking Power	7.4kW			
	Regenerative Braking Action Voltage	DC385V			
	Recommended Brake Resistor Specification	20~30Ω (2kW)			

R920-T series six axis integrated servo drive

AC380V single axis rated current 12A



R920 - T6C12 Overall Dimension Drawing



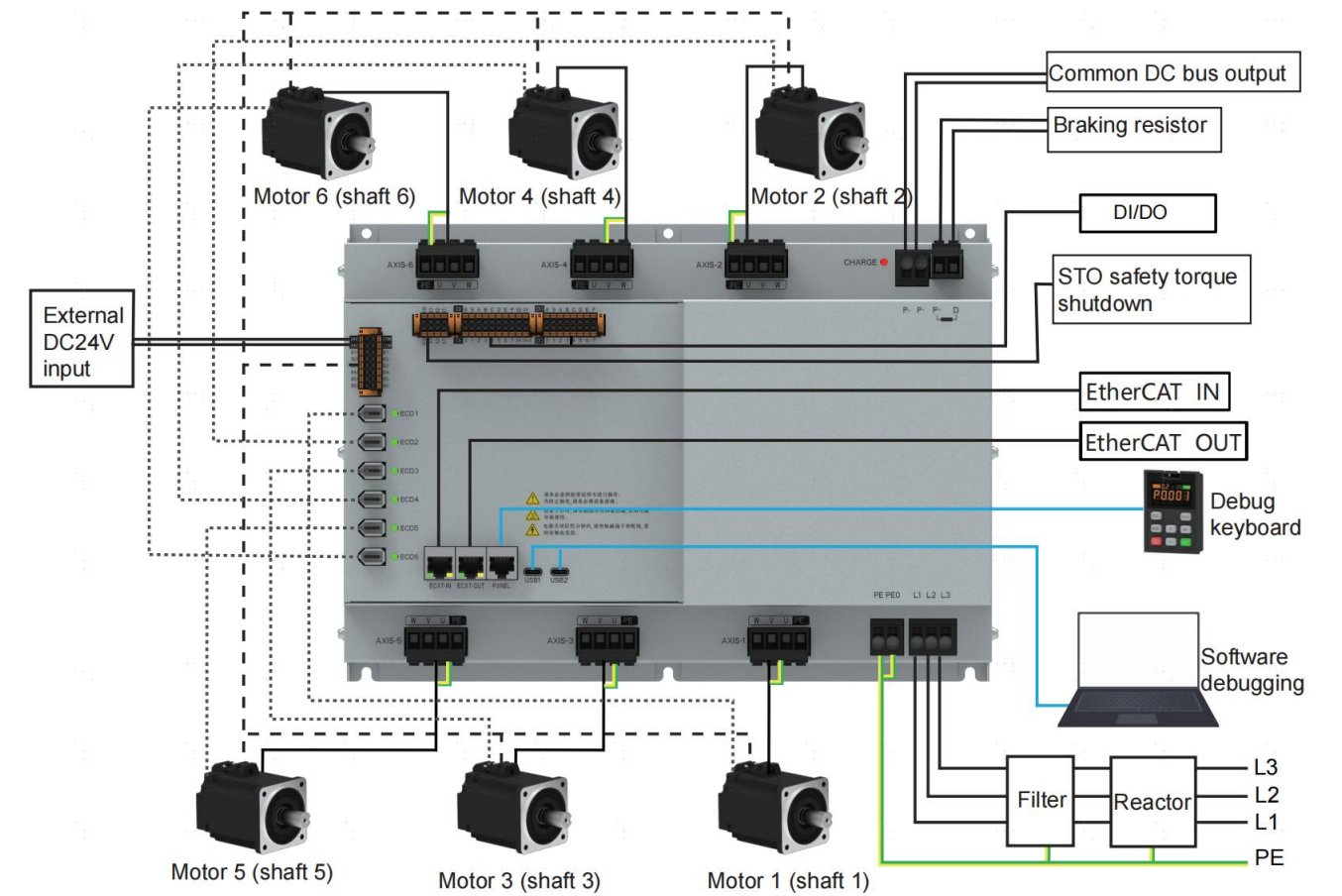
Fan bracket kit (optional)
Recommended fan model: 8025, speed $\geq 3500\text{RPM}$

Product accessories

Serial Number	Standard Components	Quantity	Description
1	Motor Interface Connector	6	Recommended wire diameter range: 1.5 - 4.0mm, tube terminal length 12mm.
2	Brake Interface Connector	1	Recommended tube terminal length 10mm;
3	DI Interface Connector	1	Wire diameter range: 0.2 - 1.5mm;
4	DO Interface Connector	1	24V input wire diameter is 1.0mm, other wire diameters are 0.5mm;
5	Safety Circuit Connector	1	Recommended 24V tube pre-insulated terminal model: E1010, others: E0510.
6	Encoder Interface Connector	6	/
7	Brake Resistor Connection Terminal	1	Recommended wire diameter range: 2.5 - 4.0mm, tube terminal length 12mm.
8	Power Interface Connector	1	Recommended wire diameter range: 4.0 - 6.0mm, tube terminal length 12mm.
9	Ground Interface Connector	1	Recommended wire diameter range: 4.0 - 6.0mm, tube terminal length 12mm.

Note: IO control terminals, encoder interface terminals, and power line terminals must use the standard configuration terminals provided in our product packaging box.

System Composition



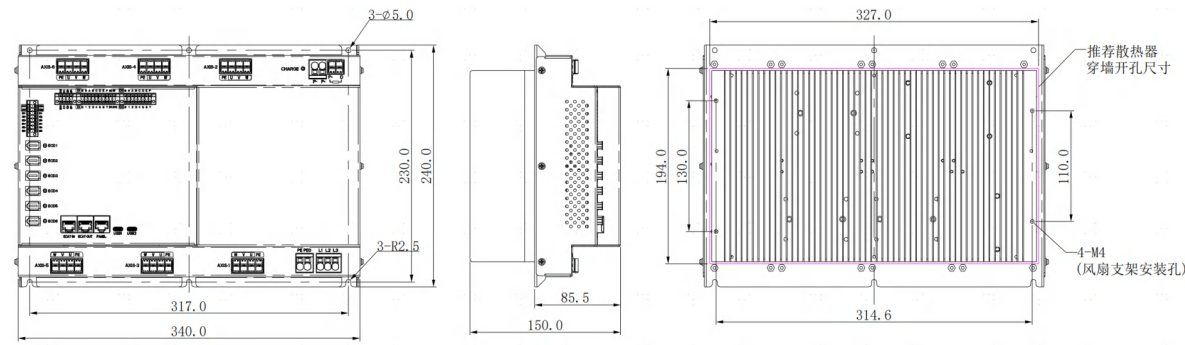
Product Specifications

Model			R920-T6C12
Technical Parameters			
Motor Output	Continuous/Maximum	Axis 1	12A /36A
		Axis 2	12A /36A
		Axis 3	12A /36A
		Axis 4	6A /18A
		Axis 5	6A /18A
		Axis 6	6A /18A
Axis Safety Brake	Output Voltage/Maximum Current		24V Max1.5A*
Input Power Supply	Number of Phases/Voltage		Three phase AC380V (-15%~ +10%)
	AC Voltage Frequency Range		50/60Hz
	Input Capacity		10kVA
Regenerative Braking Specification	Maximum Braking Power		20kW
	Regenerative Braking Action Voltage		DC720V
	Recommended Brake Resistor Specification		25~50Ω (2kW)

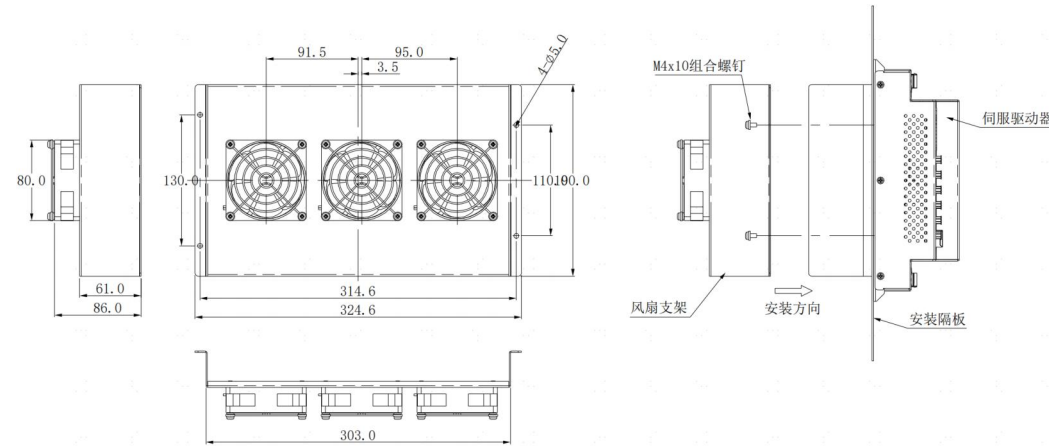
* When the motor brake current is greater than 1.5A or the sum of the six axis brake currents is greater than 6A, an external relay is required to drive the motor brake

R920-T series six axis integrated servo drive

AC380V single axis rated current 20A



R920 - T6A20 Overall Dimension Drawing



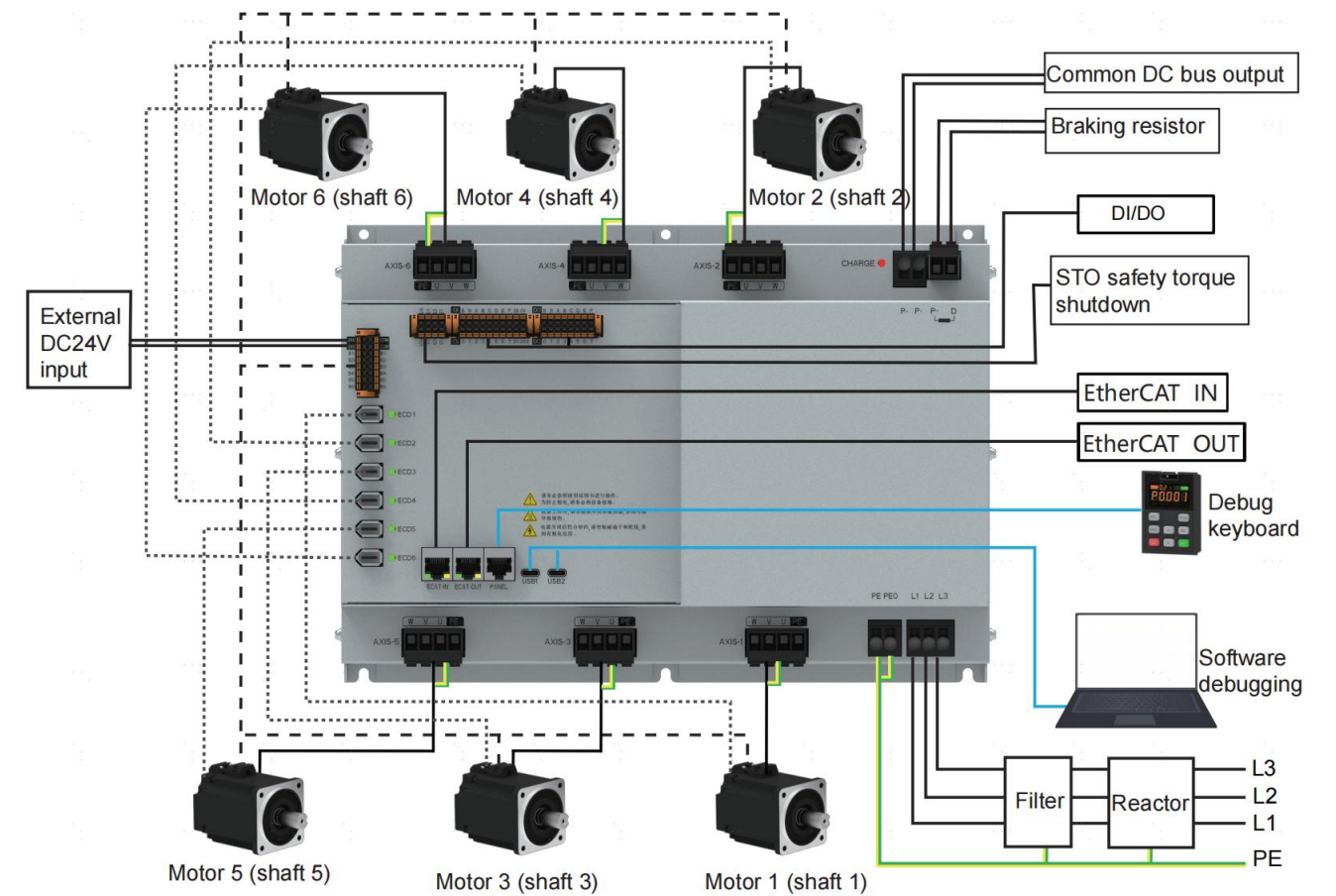
Fan bracket kit (optional)
Recommended fan model: 8025, speed ≥ 3500RPM

Product accessories

Serial Number	Standard Components	Quantity	Description
1	Motor Interface Connector	6	Recommended wire diameter range: 2.5 - 6.0mm, tube terminal length 12mm.
2	Brake Interface Connector	1	Recommended tube terminal length 10mm;
3	DI Interface Connector	1	Wire diameter range: 0.2 - 1.5mm;
4	DO Interface Connector	1	24V input wire diameter is 1.0mm, other wire diameters are 0.5mm;
5	Safety Circuit Connector	1	Recommended 24V tube pre-insulated terminal model: E1010, others: E0510.
6	Encoder Interface Connector	6	/
7	Brake Resistor Connection Terminal	1	Recommended wire diameter range: 4.0 - 6.0mm, tube terminal length 12mm.
8	Power Interface Connector	1	Recommended wire diameter range: 6.0 - 10.0mm, tube terminal length 18mm.
9	Ground Interface Connector	1	Recommended wire diameter range: 6.0 - 10.0mm, tube terminal length 18mm.

Note: IO control terminals, encoder interface terminals, and power line terminals must use the standard configuration terminals provided in our product packaging box.

System Composition



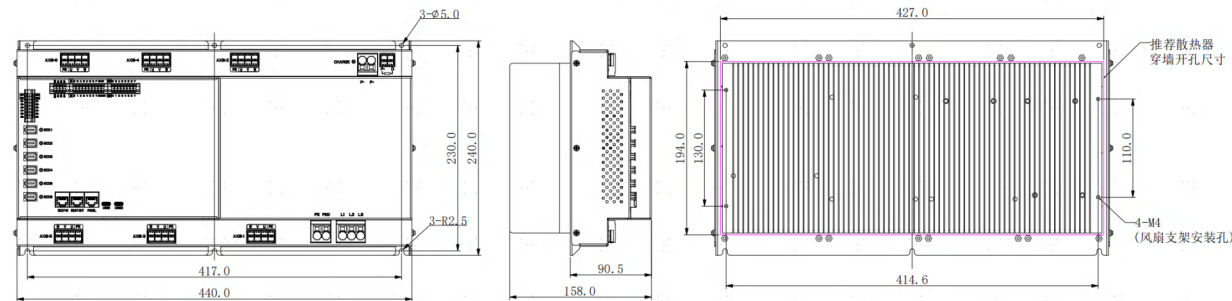
Product Specifications

Model			R920-T6A20
Technical Parameters			
Motor Output	Continuous/Maximum	Axis 1	20A /60A
		Axis 2	20A /60A
		Axis 3	20A /60A
		Axis 4	6A /18A
		Axis 5	6A /18A
		Axis 6	6A /18A
Axis Safety Brake	Output Voltage/Maximum Current		24V Max1.5A*
Input Power Supply	Number of Phases/Voltage		Three phase AC380V (-15%~ +10%)
	AC Voltage Frequency Range		50/60Hz
	Input Capacity		15kVA
Regenerative Braking Specification	Maximum Braking Power		20kW
	Regenerative Braking Action Voltage		DC720V
	Recommended Brake Resistor Specification		25~50Ω (2kW)

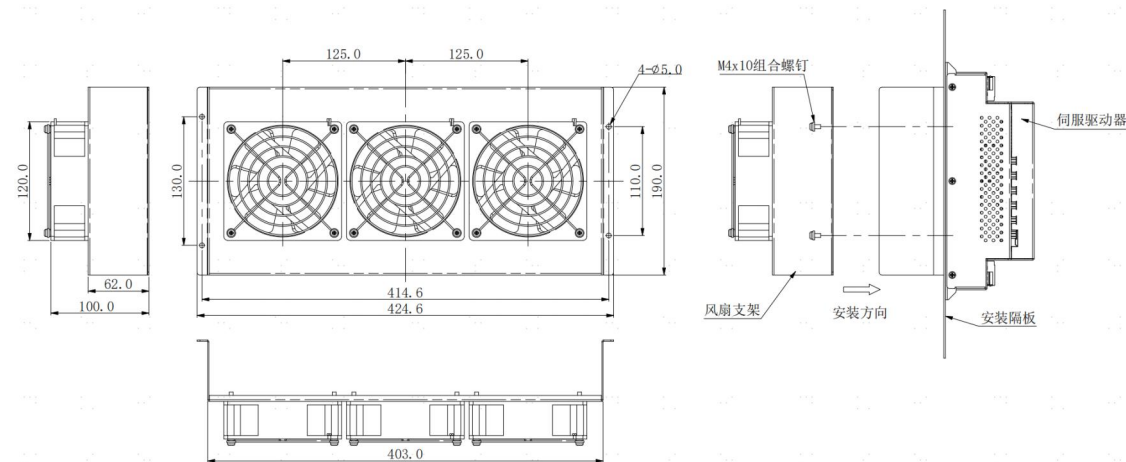
* When the motor brake current is greater than 1.5A or the sum of the six axis brake currents is greater than 6A, an external relay is required to drive the motor brake

R920-T series six axis integrated servo drive

AC380V single axis rated current 25A/35A



R920 - T6A25 / T6A35 Overall Dimension Drawing



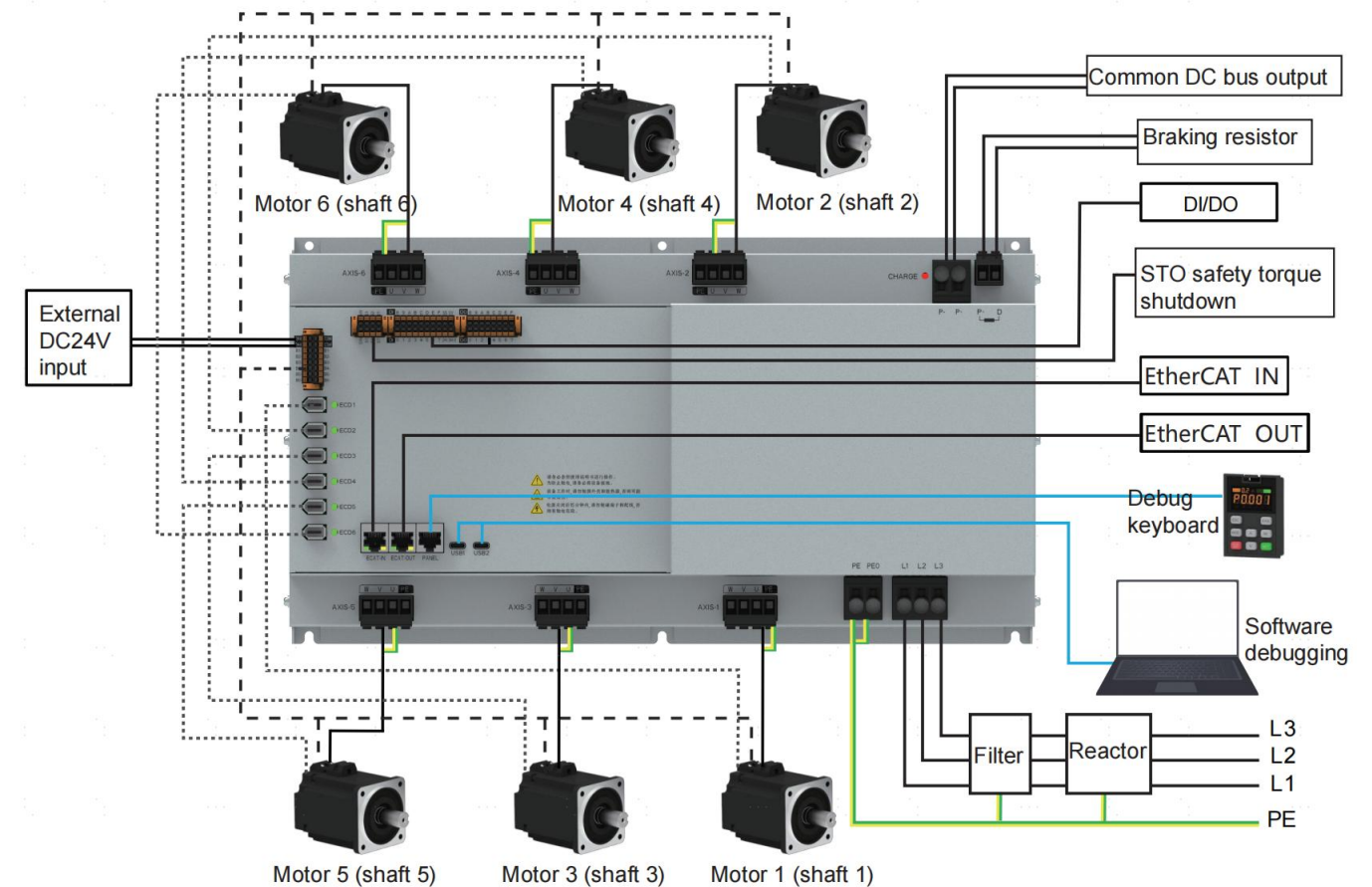
Fan bracket kit (optional)
Recommended fan model: 12038, speed $\geq$ 4000RPM

Product accessories

Serial Number	Standard Components	Quantity	Description
1	Motor Interface Connector	6	Recommended wire diameter range: 2.5 - 6.0mm, tube terminal length 12mm.
2	Brake Interface Connector	1	Recommended tube terminal length 10mm;
3	DI Interface Connector	1	Wire diameter range: 0.2 - 1.5mm;
4	DO Interface Connector	1	24V input wire diameter is 1.0mm, other wire diameters are 0.5mm;
5	Safety Circuit Connector	1	Recommended 24V tube pre-insulated terminal model: E1010, others: E0510.
6	Encoder Interface Connector	6	/
7	Brake Resistor Connection Terminal	1	Recommended wire diameter range: 4.0 - 6.0mm, tube terminal length 12mm.
8	Power Interface Connector	1	Recommended wire diameter range: 6.0 - 10.0mm, tube terminal length 18mm.
9	Ground Interface Connector	1	Recommended wire diameter range: 6.0 - 10.0mm, tube terminal length 18mm.

Note: IO control terminals, encoder interface terminals, and power line terminals must use the standard configuration terminals provided in our product packaging box.

System Composition



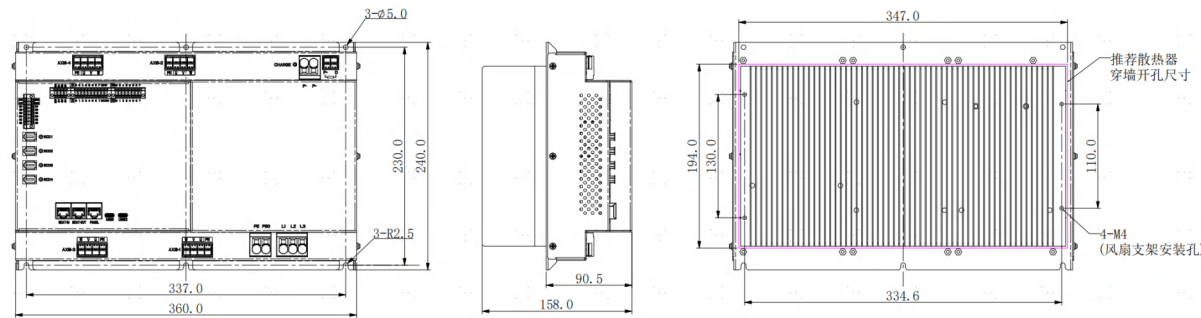
Product Specifications

Model		R920-T6A25	R920-T6A35
Technical Parameters			
Motor Output	Axis 1	25A /75A	35A /105A
	Axis 2	25A /75A	35A /105A
	Axis 3	25A /75A	25A /75A
	Axis 4	12A /36A	20A /60A
	Axis 5	12A /36A	20A /60A
	Axis 6	12A /36A	12A /36A
Axis Safety Brake	Output Voltage/Maximum Current	24V Max1.5A*	
Input Power Supply	Number of Phases/Voltage	Three phase AC380V (-15%~+10%)	
	AC Voltage Frequency Range	50/60Hz	
	Input Capacity	20kVA	
Regenerative Braking Specification	Maximum Braking Power	43kW	
	Regenerative Braking Action Voltage	DC720V	
	Recommended Brake Resistor Specification	12~25Ω (3kW)	

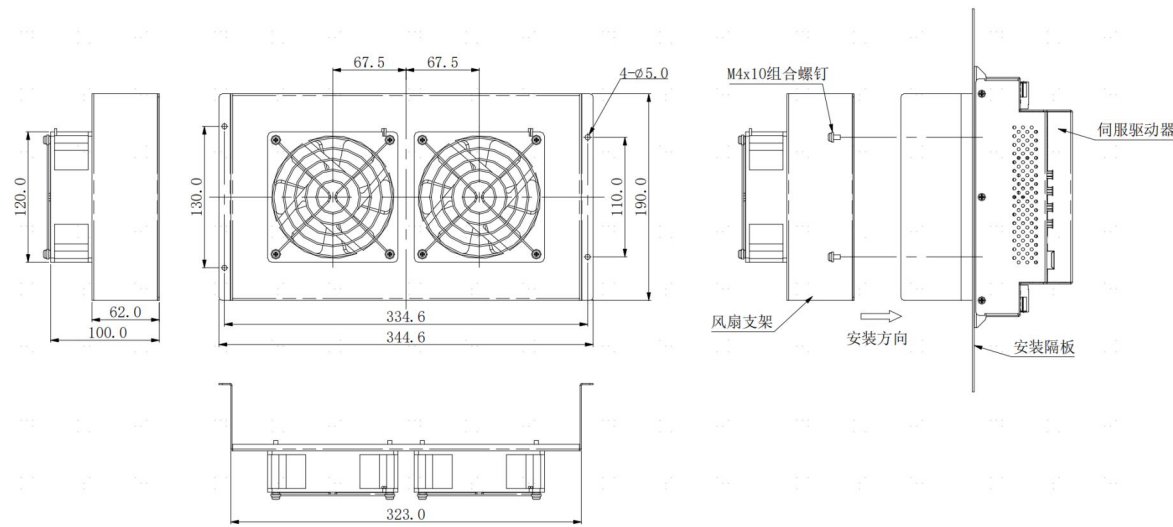
* When the motor brake current is greater than 1.5A or the sum of the six axis brake currents is greater than 6A, an external relay is required to drive the motor brake

R920-T series four axis integrated servo drive

AC380V single axis rated current 25A



R920 - T4A25 / T4B25 / T4C25 Overall Dimension Drawing



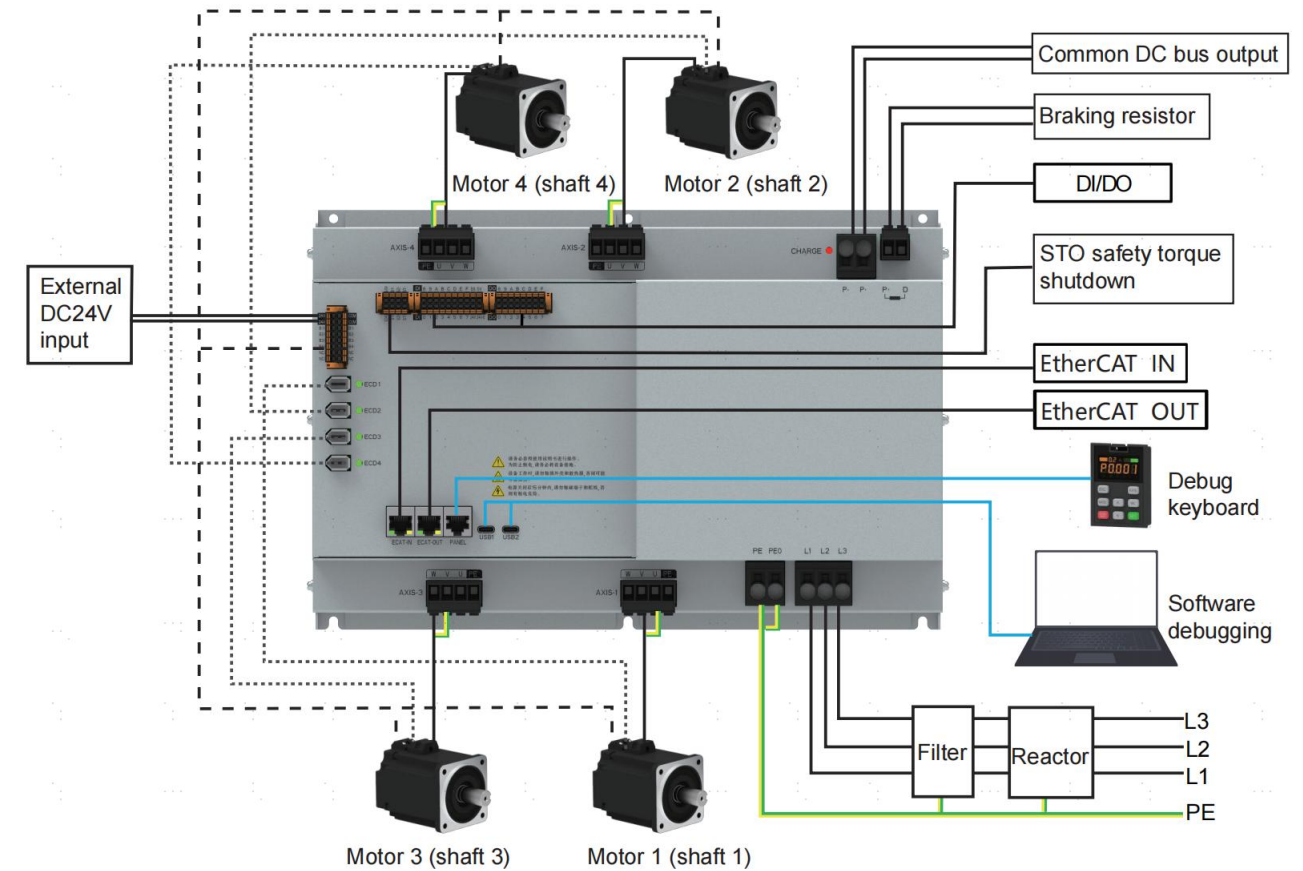
Fan bracket kit (optional)
Recommended fan model: 12038, speed ≥ 4000RPM

Product accessories

Serial Number	Standard Components	Quantity	Description
1	Motor Interface Connector	4	Recommended wire diameter range: 2.5 - 6.0mm, tube terminal length 12mm.
2	Brake Interface Connector	1	Recommended tube terminal length 10mm;
3	DI Interface Connector	1	Wire diameter range: 0.2 - 1.5mm;
4	DO Interface Connector	1	24V input wire diameter is 1.0mm, other wire diameters are 0.5mm;
5	Safety Circuit Connector	1	Recommended 24V tube pre-insulated terminal model: E1010, others: E0510.
6	Encoder Interface Connector	4	/
7	Brake Resistor Connection Terminal	1	Recommended wire diameter range: 4.0 - 6.0mm, tube terminal length 12mm.
8	Power Interface Connector	1	Recommended wire diameter range: 6.0 - 10.0mm, tube terminal length 18mm.
9	Ground Interface Connector	1	Recommended wire diameter range: 6.0 - 10.0mm, tube terminal length 18mm.

Note: IO control terminals, encoder interface terminals, and power line terminals must use the standard configuration terminals provided in our product packaging box.

System Composition



Product Specifications

Model			R920-T4A25	R920-T4B25	R920-T4C25
Technical Parameters					
Motor Output	Continuous/Maximum	Axis 1	25A /75A	25A /75A	25A /75A
		Axis 2	25A /75A	25A /75A	25A /75A
		Axis 3	12A /36A	25A /75A	25A /75A
		Axis 4	6A /18A	6A /18A	12A /36A
Axis Safety Brake	Output Voltage/Maximum Current		24V Max1.5A*		
Input Power Supply	Number of Phases/Voltage		Three phase AC380V (-15%~+10%)		
	AC Voltage Frequency Range		50/60Hz		
	Input Capacity		20kVA		
Regenerative Braking Specification	Maximum Braking Power		43kW		
	Regenerative Braking Action Voltage		DC720V		
	Recommended Brake Resistor Specification		12~25Ω (3kW)		

* When the motor brake current exceeds 1.5A, an external relay is used for relay transfer



About Us

MT Drive & Control (Shenzhen) Co., Ltd. We are a national high-tech enterprise focusing on core components and turnkey complete solutions for advanced manufacturing. Upholding the core values of Focus, Innovation, Leadership, we have built a three-tier industrial product architecture covering control, servo and sensors. We are committed to delivering more advanced, reliable, efficient and competitive full-set industry solutions.

Headquartered in Shenzhen, China's innovation hub, the company operates a R&D Center, Quality Center, Production Center, Administration Center, Marketing Center and a Suzhou Sales Branch. As a pioneer and leader in multi-axis transmission technology, our product portfolio includes motion PLCs, servo systems, integrated drive-control systems, remote I/O modules and other core components.

Our products support mainstream industrial fieldbus protocols including PROFINET, EtherCAT and EtherNet/IP. With proprietary technical architecture and outstanding performance, they are widely applied in photovoltaic, lithium battery, robotics, CNC & metalworking/woodworking/glass/semiconductor processing, logistics warehousing, 3C, automotive manufacturing, printing & packaging, tobacco and other industries.

Adhering to long-term value-oriented development, MT-Drive synchronously develops core industrial components and customized industry turnkey solutions. As our product lineup continues to expand, we provide all-round industrial services and actively drive the development of the manufacturing sector.

Corporate Vision

To become a leading brand in the field of multi-axis transmission

Core Values

Focus | Innovation | Leadership

Patents & Qualifications

Independent R&D with multiple core key technologies in transmission field

- Over 85 intellectual property rights obtained
- Certified by CE, UL, RoHS, FCC and other international product standards
- ISO9001 quality management system certified

Other product matrix

Control Layer



MSC9 Series Drive-Control Integrated System



EPC501 Series All-Electric Injection Molding Machine Controller



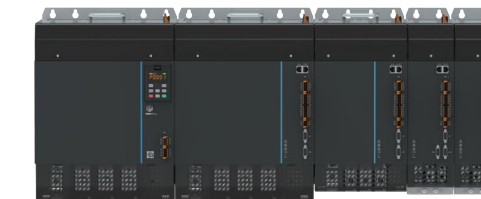
MC500 Series Motion PLC 8/16/36-Axis



MC800 Series Motion PLC 16/32/64/128-Axis



Drive Layer



M900T



M900



D900



M800



R910-S



R920-S



R920-T



MDL580 (Single-Axis)

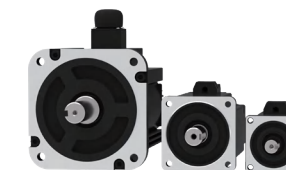


MDL580 (Dual-Axis)

Actuation/-Sensing Layer



25-bit Optical Encoder



Servo Motors 50W-75kW



Integrated Remote I/O Module



Plug-in Remote I/O Module



Drive your future!

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