

PRODUCT DATASHEET

ES-SD-C01-S009-V001

Industrial Motion Controller

24 60 V Low Voltage Micro Servo Drives | 24-60 V Compact Servo Drive Series - ES-SD-C01-S009

Product Overview

Industrial Motion Controller with logic Supply Voltage 24 V DC, peak Output Current 48 A peak and continuous Output Current Without Auxiliary Heatsink 12 Arms.

Key Specifications

PARAMETER	VALUE	UNIT
Logic Supply Voltage	24	V DC
Peak Output Current	48 A peak	
Continuous Output Current Without Auxiliary Heatsink	12 Arms	
Communication Protocol	RS485; Modbus RTU; CANopen; Pulse	
Control Method	RS485, CANopen, STO and pulse	
Protection Class	IP20; X5 power terminal is IP00	
Weight	1.68	kg
Digital I/O	8 digital inputs; 4 digital outputs	
Analog Input Count	2	

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Continuous Output Current Without Auxiliary Heatsink	12 Arms	
Hardware Output Current Class	65 Arms	
Supported Motor Power Range	750 to +1000	W
ELECTRICAL		
Logic Supply Voltage	24	V DC
Peak Output Current	48 A peak	
Braking Absorption Voltage	115 $\pm$ 2 V VDC / 115	V DC
Braking Resistor	External braking resistor supported when required by the duty cycle, particularly for rapid start/stop operation	
External Braking Resistor Required	Yes / 1	
Overvoltage Alarm Voltage	120 $\pm$ 2 V VDC / 120	V DC
Undervoltage Alarm Voltage	60 $\pm$ 2 V VDC / 60	V DC
Rated Power Supply Voltage	96	V DC
Logic Supply Current	3	A

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
Servo Drive AC Supply Voltage	72 to +110	V DC
Logic Power Loss	4000	mW
Protection Functions	Overvoltage; Undervoltage; Motor overtemperature (I^2T); Short circuit; Drive overtemperature	
MECHANICAL		
Weight	1.68	kg
INTERFACES		
Communication Protocol	RS485; Modbus RTU; CANopen; Pulse	
Control Method	RS485, CANopen, STO and pulse	
Digital I/O	8 digital inputs; 4 digital outputs	
Pulse Input Supported	Yes / 1	
Type-C Debug Interface	Yes / 1	
Encoder Output Voltage	5	V
Digital Output Count	4	
Analog Input Count	2	

Technical Specifications

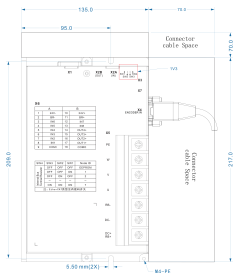
PARAMETER	SPECIFICATION	UNIT
INTERFACES		
Brake Output Voltage	24	V
Digital Input Count	8	
Analog Input Range	-10 to +10	V
Pulse Input Voltage	12 to +24	V DC
Feedback Signal Support	Tamagawa serial protocol; Incremental encoder	
Encoder Output Division Range	0 to +65536	
Encoder Output Maximum Frequency	5	MHz
Secondary Encoder Input Support	BiSS; Nikon encoder protocol; Tamagawa serial protocol; AB incremental	
Brake Output Current	2	A
ENVIRONMENTAL		
Protection Class	IP20; X5 power terminal is IP00	
Relative humidity	10-95% RH, non-condensing	
Installation Environment	Dry, dust-free enclosed location such as an electrical cabinet	

Dimensional & Integration Overview

Mechanical Overview

PARAMETER	VALUE	UNIT
Weight	1.68	kg

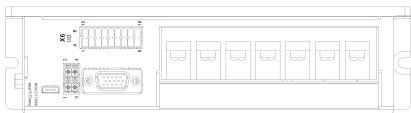
Dimensional Drawings



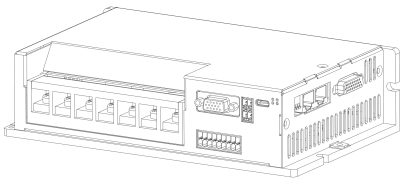
Mechanical View 1



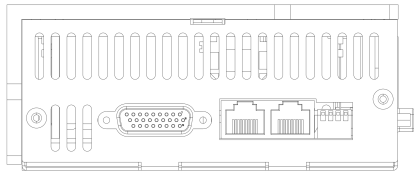
Mechanical View 2



Mechanical View 3



Mechanical View 4



Mechanical View 5

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Total Width	135.0 mm
	Connector Area Width	70.0 mm
	Left Area Width	95.0 mm
	Total Height	209.0 mm
	Right Side Total Height	217.0 mm
	Mounting Hole Position and Spec	5.50 mm diameter, 2 holes
	Ground Thread	M4 thread for PE ground
Mechanical View 2	Fixation hole diameter	Φ5.50 mm, 2 places
	Vertical mounting hole spacing 1	57.0 mm
	Vertical mounting hole spacing 2	55.0 mm
	Vertical mounting hole spacing 3	30.0 mm
	Overall horizontal length	209.0 mm
Mechanical View 3	Status indicator labels	Status indicators: RUN, ERR, BUS, PUR

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01 Specifications are subject to change without notice. Verify the current product configuration before final design release.

02 2D drawings, CAD files and integration documentation are controlled documents and are supplied separately on request.