

PRODUCT DATASHEET

ES-SD-C01-S009-V002

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 100 A peak and continuous Output Current Without Auxiliary Heatsink 22 Arms.

Key Specifications

PARAMETER	VALUE	UNIT
Logic Supply Voltage	24	V DC
Peak Output Current	100 A peak	
Continuous Output Current Without Auxiliary Heatsink	22 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	22 Arms	
Hardware Output Current Class	65 Arms	
Supported Motor Power Range	1500	W
ELECTRICAL		
Logic Supply Voltage	24	V DC
Peak Output Current	100 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

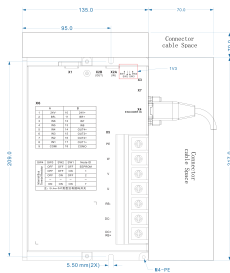
PARAMETER	SPECIFICATION	UNIT
INTERFACES		
Brake Output Voltage	24	V
Digital Input Count	8	
Analog Input Range	-10 to +10	V
Pulse Input Voltage	12 to +24	V DC
Feedback Signal Support	Tamagawa serial protocol; Incremental encoder	
Encoder Output Division Range	0 to +65536	
Encoder Output Maximum Frequency	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



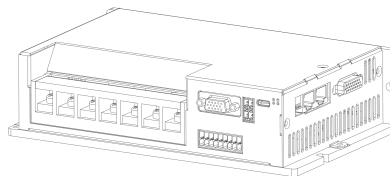
Mechanical View 1



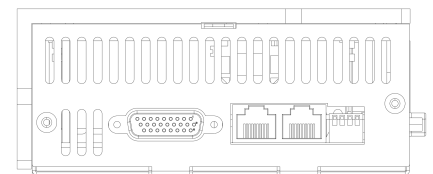
Mechanical View 2



Mechanical View 3



Mechanical View 4



Mechanical View 5

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Overall width	135.0 mm
	Right section width	70.0 mm
	Left section width	95.0 mm
	Overall height	209.0 mm
	Right side overall height	217.0 mm
	Connector cable space height	70.0 mm
	Mounting hole diameter	5.50 mm (2 holes)
	PE grounding screw hole specification	M4 PE grounding hole
Mechanical View 2	Outer horizontal fixation hole position distance	57.0 mm
	Inner horizontal fixation hole position distance	55.0 mm
	Horizontal distance from fixation slot to right-side reference	30.0 mm
	Vertical fixation hole position distance	209.0 mm
	Fixation hole or slot width quantity	5.50 mm, 2 places
	View note	Hole position for fixation

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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.