PRODUCT DATASHEET

ES-SD-C01-S008-V002

Industrial Motion Controller

24 60 V Low Voltage Micro Servo Drives | 24-60 V Compact Servo Drive Series - ES-SD-C01-S008

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 and pulse	
Protection Class	IP20; X5 power terminal is IP00	
Weight	0.322	kg
Digital I/O	3 digital inputs; 1 digital output	
Altitude Derating Start	1000 m	

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
PERFORMANCE		
Continuous Output Current Without Auxiliary Heatsink	12 Arms	
Supported Motor Power Range	200 to +2000	W
ELECTRICAL		
Logic Supply Voltage	24	V DC
Peak Output Current	48 A peak	
Braking Absorption Voltage	63 ±2 V VDC / 63	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	
Logic Supply Connection Optional	Yes / 1	
Overvoltage Alarm Voltage	70 ±2 V VDC / 70	V DC
Undervoltage Alarm Voltage	18 ±2 V VDC / 18	V DC
Logic Supply Current	1	A
Servo Drive AC Supply Voltage	24 to +60	V DC

Technical Specifications

PARAMETER	SPECIFICATION	UNIT
ELECTRICAL		
Logic Power Loss	1000	mW
Protection Functions	Overvoltage; Undervoltage; Motor overtemperature (I^2T); Short circuit; Drive overtemperature	
MECHANICAL		
Weight	0.322	kg
INTERFACES		
Communication Protocol	RS485; Modbus RTU; CANopen; Pulse	
Control Method	RS485, CANopen and pulse	
Digital I/O	3 digital inputs; 1 digital output	
Pulse Input Supported	Yes / 1	
Type-C Debug Interface	Yes / 1	
Digital Output Count	1	
Digital Input Count	3	
Pulse Input Voltage	3.3 to +24	V DC
Feedback Signal Support	Multi-turn Tamagawa serial encoder	

Technical Specifications

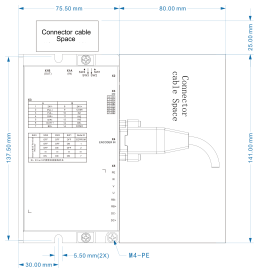
PARAMETER	SPECIFICATION	UNIT
INTERFACES		
Brake Output Current	0.5	A
ENVIRONMENTAL		
Protection Class	IP20; X5 power terminal is IP00	
Relative humidity	≤90% RH, non-condensing	
Installation Environment	Dry, dust-free enclosed location such as an electrical cabinet	
Atmospheric Pressure	86 to +106	kPa
Operating Temperature	-20 to +40	°C
Storage Temperature	-40 to +70	°C
Installation Orientation	Vertical or horizontal	
Cooling Method	Natural cooling	
Altitude Derating Start	1000	m
Maximum Operating Humidity	90	%RH
Maximum Operating Altitude	2000	m

Dimensional & Integration Overview

Mechanical Overview

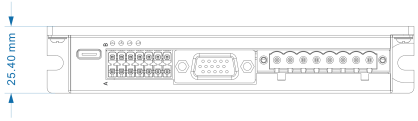
PARAMETER	VALUE	UNIT
Weight	0.322	kg

Dimensional Drawings

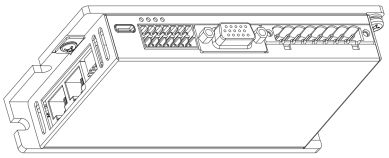


Mechanical View 1

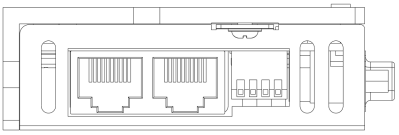
Mechanical View 2



Mechanical View 3



Mechanical View 4



Mechanical View 5

2D Drawing Dimensions & Callouts

VIEW	FIELD	VALUE
Mechanical View 1	Horizontal envelope left section	75.50 mm
	Horizontal envelope right section	80.00 mm
	Vertical envelope right side	25.00 mm
	Vertical envelope left side	137.50 mm
	Total height right side	141.00 mm
	Left horizontal mounting dimension	30.00 mm
	Mounting hole spacing	5.50 mm (2 places)
	Grounding screw hole	M4 grounding thread
Mechanical View 2	Top mounting slot outer reference width	25.40 mm
	Top mounting slot inner offset dimension	13.90 mm
	Fixing hole position vertical distance	137.50 mm
	Fixing hole slot width and quantity	5.50 mm, 2 places
	Hole position for fixation note	Hole position for fixation
Mechanical View 3	Overall height	Overall height 25.40 mm

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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.