Product data sheet

Specifications



motion control stepper motor drive - SD328 - <= 2.5 A

SD328AU25S2

Product availability: Non-Stock - Not normally stocked in distribution facility

Main

Range of Product	Lexium SD3
Product or Component Type	Motion stepper drive
Device short name	SD328
Supply voltage limits	200…240 V 100…120 V
Bus type	Fieldbus

Complementary

Format of the drive	Block
Phase	Single phase
[Us] rated supply voltage	100...120 V - 15...10 % 200...230 V - 15...10 %
Supply voltage type	AC/DC
Network frequency limits	50…60 Hz - 15...10 %)
Communication interface	CANopen, Integrated Analogue input, Integrated Modbus, Integrated
Maximum motor phase current	2.5 A
Current consumption	3 A 230 V main supply 4 A 115 V main supply <= 0.2 mA 24 V control voltage
Nominal power	180 W 115 V 270 W 230 V
Short-circuit current	0.5 kA
Power losses	<= 26 W
Associated fuse rating	6 A 115 V 6 A 230 V
Overvoltage category	III
Inrush current	60 A
Maximum leakage current	30 mA <32.8 ft (10 m) IEC 60990-3
Voltage state 0 guaranteed	-3...5 V 24 V input signals
Voltage state 1 guaranteed	15...30 V 24 V input signals
Input current	10 mA 24 V input signals
Maximum input frequency	200 kHz signal input ENC_A, ENC_B, ENC_I pulse/direction 400 kHz signal input ENC_A, ENC_B, ENC_I A/B

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Maximum output frequency	400 kHz pulse/direction interface A/B 200 kHz pulse/direction interface pulse/direction
Maximum switching current	50 mA 24 V output signals)
Maximum voltage drop	<1 V 50 mA load 24 V output signals
Physical interface	2-wire RS 485 Modbus RS422 - pulse/direction interface RS422 - signal input ENC_A, ENC_B, ENC_I
Output voltage	<= 30 V 24 V output signals) 4.75...5.25 V ENC+5V_OUT signal output)
Input voltage	24 V -15 %/+20 % 24 V control voltage -10...10 V analogue input signals
Residual ripple	< 5 % 24 V control voltage)
Resistance	5 kOhm pulse/direction interface) 10 kOhm analogue input signals)
Analogue input type	Voltage - 10...10 V 14 bits 0.25 ms
Electrical connection	Connector RJ45 CANopen interface Connector RJ45 Modbus interface Spring terminal CANopen interface
Mode of transmission	RTU Modbus
Method of access	Slave CANopen
Transmission Rate	125 kbps, 250 kbps, 500 kbps, 1 Mbps CANopen 9600, 19200, 38400 bps Modbus
Number of addresses	1…127 CANopen 1…247 Modbus
Installed device	127 stepper motor drives CANopen 31 stepper motor drives Modbus
Data format	8 bits, 1 stop, even parity Modbus 8 bits, no parity, 1 stop Modbus 8 bits, no parity, 2 stop Modbus 8 bits, odd parity, 1 stop Modbus
Communication service	1 PDO configurable CANopen 2 SDOs receive CANopen 2 SDOs send CANopen 3 PDOs as per DSP 402 CANopen CiA DSP 402 profile CANopen Diagnostics (08) Modbus Emergency CANopen Note guarding, heartbeat CANopen Read device identification (43) Modbus Read hold register (03), maximum 63 words Modbus Read/write multiple registers (23), maximum 63/59 words Modbus Write multiple registers (16), maximum 61 words Modbus Write single register (06) Modbus
Local signalling	1 LED - ERR CANopen 1 LED - RUN CANopen
Safety function	Safe torque off safety function machine IEC/EN 61800-5-2 Safe torque off safety function machine ISO 13849-1 level d Safe torque off safety function system process EN/IEC 61508 level SIL2 Safe torque off safety function system process IEC/EN 61800-5-2
Type of cooling	Natural convection
Maximum mechanical speed	3000 rpm
Height	5.7 in (145 mm)
Width	2.8 in (72 mm)
Depth	5.5 in (140 mm)
Shock resistance	15 gn 11 ms IEC 60068-2-27

Net Weight	2.4 lb(US) (1.1 kg)

Environment

Electromagnetic compatibility	Electrostatic discharge level 3 conforming to IEC 61000-4-2 Immunity to electrical transients level 4 conforming to IEC 61000-4-4 Immunity to radiated radio-electrical interference level 3 conforming to IEC 61000-4-3 Voltage/current impulse level 3 conforming to IEC 61000-4-5
Standards	EN/IEC 61800-3 EN/IEC 61800-5-1
Product Certifications	UL cUL TÜV
Marking	CE
Ambient air temperature for operation	32…122 °F (0…50 °C)
Ambient Air Temperature for Storage	-13…158 °F (-25…70 °C)
Pollution degree	Level 2
Relative humidity	5…85 % without condensation
Operating altitude	<= 3280.84 ft (1000 m) without derating > 3280.84...< 6561.68 ft (> 1000...< 2000 m) without derating maximum ambient temperature 40°C, no protective film, lateral distance of > 50mm)
Vibration resistance	1 gn (f= 13…150 Hz) conforming to IEC 60068-2-6 1.5 mm (f= 3…13 Hz) conforming to IEC 60068-2-6
IP degree of protection	IP20 On upper part: IP40 (without removal of protective film)

Ordering and shipping details

Category	US1PC5518285
Discount Schedule	PC55
GTIN	3389119224369
Returnability	No
Country of origin	DE

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	5.118 in (13.000 cm)
Package 1 Width	6.496 in (16.500 cm)
Package 1 Length	7.480 in (19.000 cm)
Package weight(Lbs)	2.749 lb(US) (1.247 kg)
Unit Type of Package 2	S04
Number of Units in Package 2	12
Package 2 Height	11.8 in (30 cm)
Package 2 Width	15.7 in (40 cm)
Package 2 Length	23.6 in (60 cm)
Package 2 Weight	34.394 lb(US) (15.601 kg)
Unit Type of Package 3	P06

Number of Units in Package 3	48
Package 3 Height	29.528 in (75.000 cm)
Package 3 Width	31.496 in (80.000 cm)
Package 3 Length	23.622 in (60.000 cm)
Package 3 Weight	155.214 lb(US) (70.404 kg)

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**501 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**91 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.4 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0.5 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**408 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**2 kg CO2 eq.**
Environmental Disclosure	**Product Environmental Profile**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**No**
SCIP Number	**19ee4950-c76c-48d9-8353-203688a9f056**
EU RoHS Directive	**Compliant By Exemption**
REACh Regulation	**Reference contains Substances of Very High Concern above the threshold**
California proposition 65	**WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov**
PVC free	**Yes**

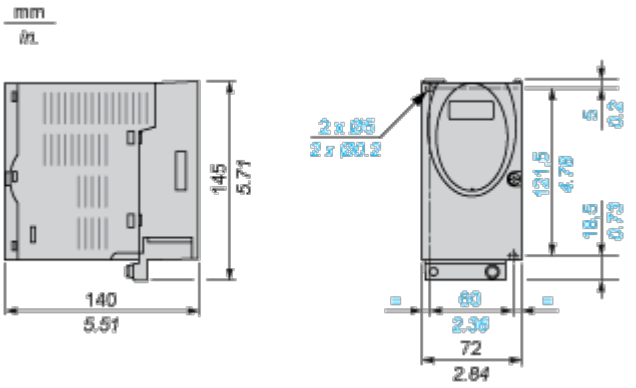
Use Again

Repack and remanufacture

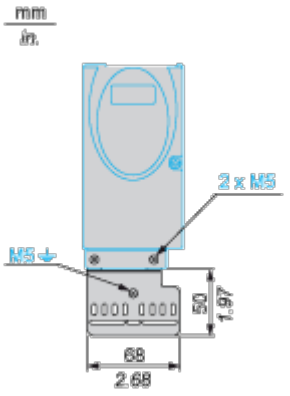
Recyclability potential, in %	**98**
Circularity Profile	**End of Life Information**
Take-back	**No**

Dimensions Drawings

Dimensions

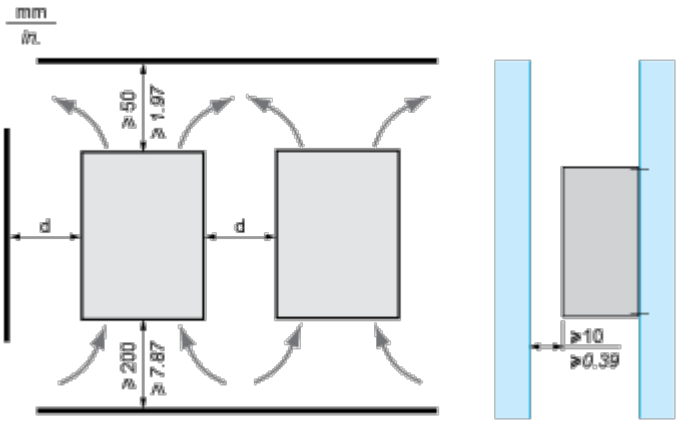


EMC mounting plate (included)



Mounting and Clearance

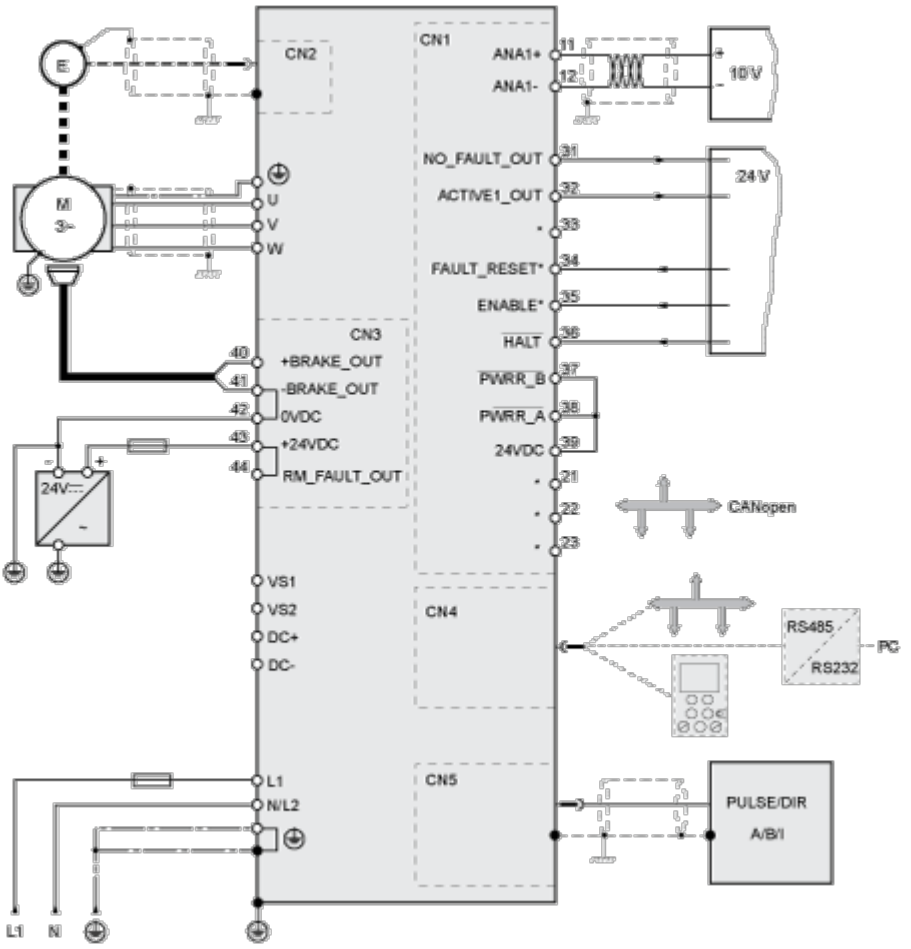
Mounting and Clearance



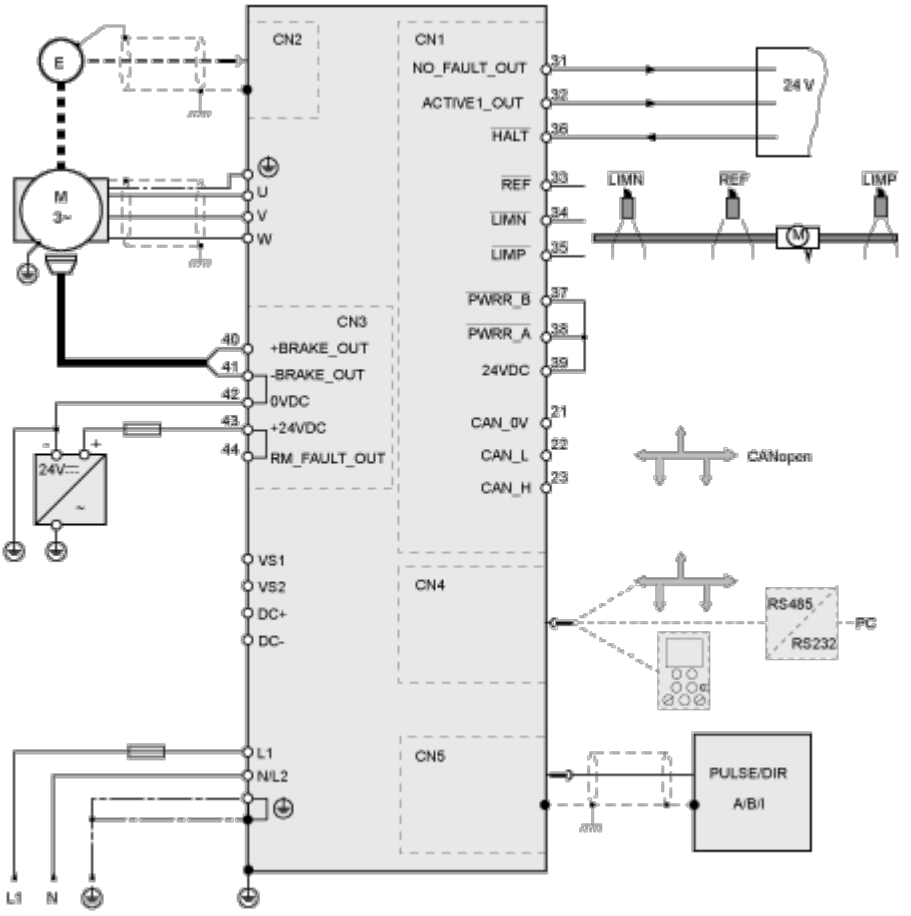
Ambient temperature	Mounting distances	Mounting recommendations	
		Without protective film (1)	With protective film
0 ... +40 °C	d > 50 mm/ 1.97 in.	None	None
	d > 50 mm/ 1.97 in.	None	d > 10 mm/0.39 in.
+40 ... +50 °C	d > 50 mm/ 1.97 in.	None	Reduce nominal and continuous current by 2.2 % per °C above 40 °C
	d > 50 mm/ 1.97 in.	Reduce nominal and continuous current	Operation not possible
(1) Recommendation: remove protective film after installation.			

Connections and Schema

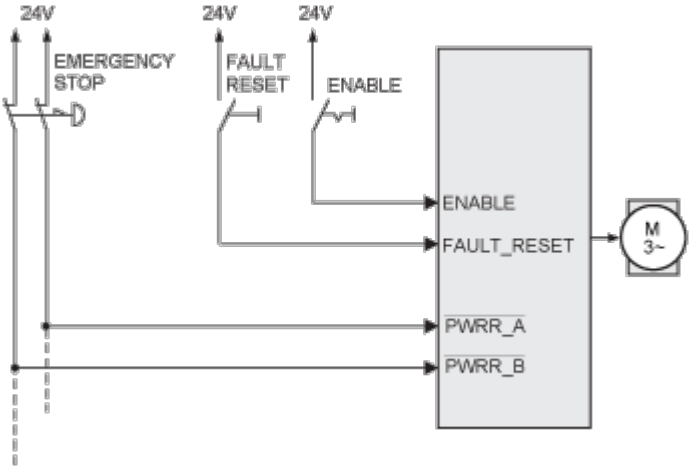
SD328A Connection Example with Local Control



SD328A Connection Example with Fieldbus Control



Example of Application of the Safety Function: Category 0 Stop



Example of Application of the Safety Function: Category 1 Stop

