



Main

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| 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

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| 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 | Analogue input, Integrated Modbus fieldbus, Integrated CANopen fieldbus, Integrated |
| Maximum motor phase current | 6.8 A |
| Current consumption | 5 A 230 V main supply 7 A 115 V main supply ≤ 0.2 mA 24 V control voltage |
| Nominal power | 280 W 115 V 420 W 230 V |
| Short-circuit current | 0.5 kA |
| Power losses | ≤ 65 W |
| Associated fuse rating | 10 A 115 V 6 A 230 V |
| Overvoltage category | III |
| Inrush current | 60 A |
| Maximum leakage current | 30 mA <32.81 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 |
| 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 |

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| 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 | Fan |
| Maximum mechanical speed | 3000 rpm |
| Height | 5.71 in (145 mm) |
| Width | 2.83 in (72 mm) |
| Depth | 5.51 in (140 mm) |
| Shock resistance | 15 gn 11 ms EN/IEC 60068-2-27 |
| Net Weight | 2.65 lb(US) (1.2 kg) |

Environment

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|---------------------------------------|---|
| Electromagnetic compatibility | Electrostatic discharge level 3 EN/IEC 61000-4-2 Immunity to electrical transients level 4 EN/IEC 61000-4-4 Immunity to radiated radio-electrical interference level 3 EN/IEC 61000-4-3 Voltage/current impulse level 3 EN/IEC 61000-4-5 |
| Standards | EN/IEC 61800-5-1 EN/IEC 61800-3 EN/IEC 61800-3 environment 2 EN/IEC 50178 EN/IEC 61800-3 environment 1 |
| Product Certifications | CUL TÜV UL |
| 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) |

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| Vibration resistance | 1 gn 13...150 Hz)EN/IEC 60068-2-6 1.5 mm 3...13 Hz)EN/IEC 60068-2-6 |
| IP degree of protection | IP20 On upper part IP40 without removal of protective film) |

Ordering and shipping details

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|-------------------|----------------------|
| Category | 18285-STEPPER DRIVES |
| Discount Schedule | PC55 |
| GTIN | 3389119224383 |
| Returnability | No |
| Country of origin | DE |

Packing Units

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|------------------------------|-------------------------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 8.07 in (20.5 cm) |
| Package 1 Width | 8.07 in (20.5 cm) |
| Package 1 Length | 9.25 in (23.5 cm) |
| Package 1 Weight | 2.94 lb(US) (1.332 kg) |
| Unit Type of Package 2 | S04 |
| Number of Units in Package 2 | 6 |
| Package 2 Height | 11.81 in (30 cm) |
| Package 2 Width | 15.75 in (40 cm) |
| Package 2 Length | 23.62 in (60 cm) |
| Package 2 Weight | 19.45 lb(US) (8.822 kg) |

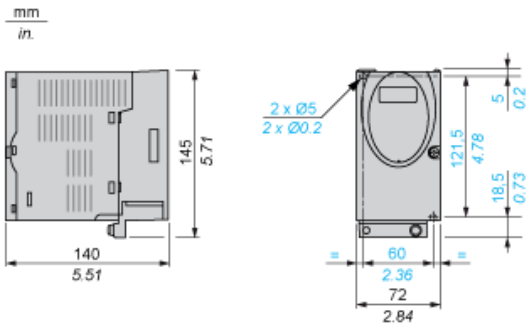
Offer Sustainability

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| Sustainable offer status | Green Premium product |
| 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 |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| China RoHS Regulation | China RoHS Declaration |
| RoHS exemption information | Yes |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End Of Life Information |
| PVC free | Yes |

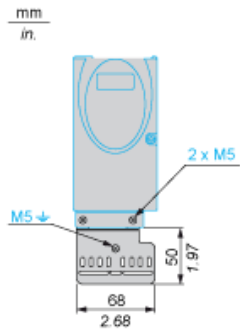
Contractual warranty

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| Warranty | 18 months |
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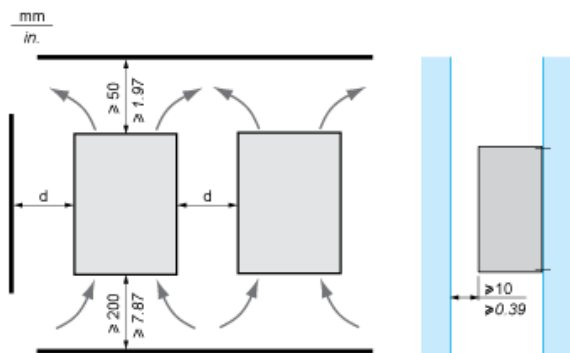
Dimensions



EMC mounting plate (included)



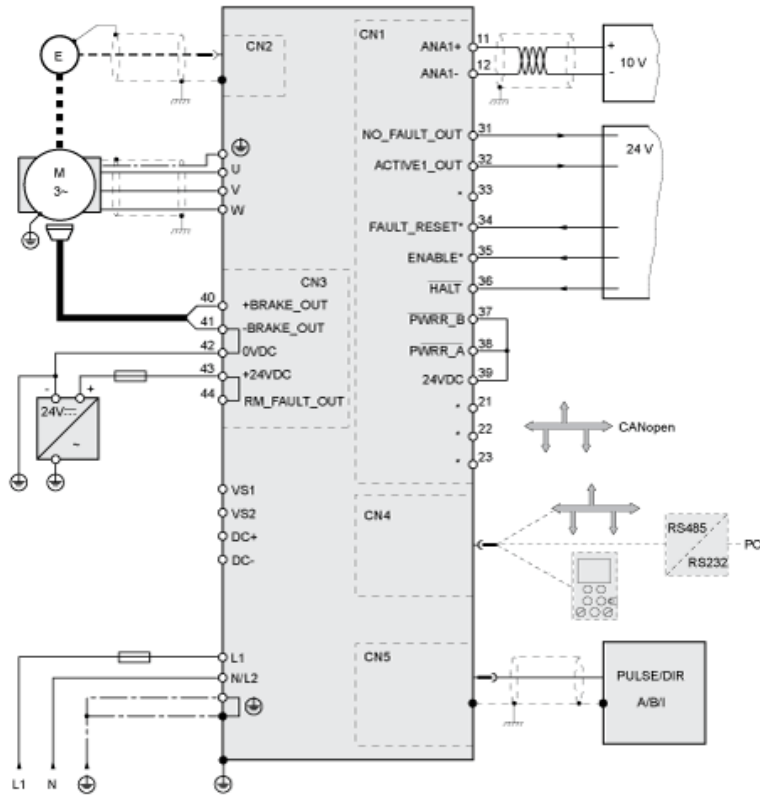
Mounting and Clearance



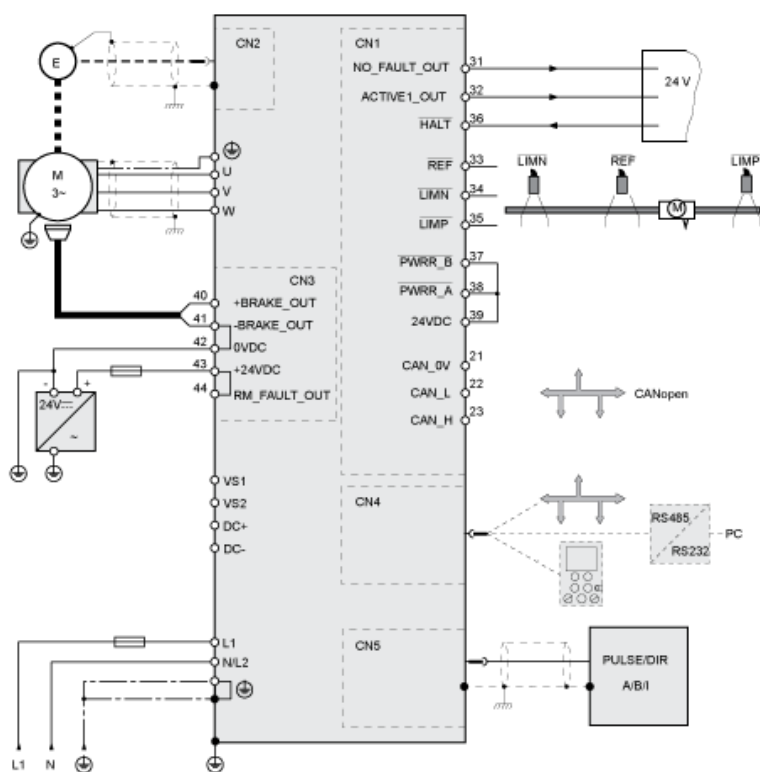
| Ambient temperature | Mounting distances | Mounting recommendations | |
|---------------------|---------------------------------------|-----------------------------|---|
| | | Without protective film (1) | With protective film |
| 0 ... +40 °C | d > 50 mm/1.97 in. | None | None |
| d > 50 mm/1.97 in. | 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.

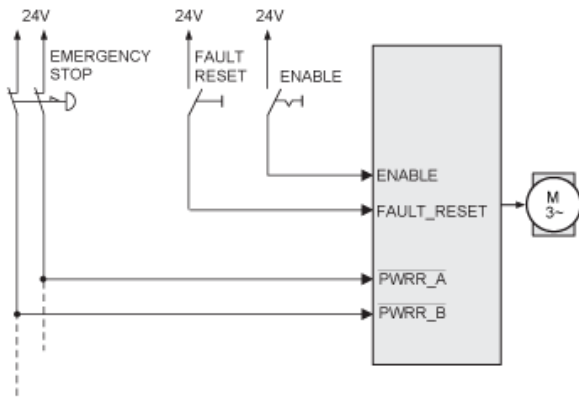
SD328A Connection Example with Local Control



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

