ESMD152X2SFA

Lenze · SMD Frequency Inverter

Compact SMD frequency inverter for 1/N/PE 230/240 V single-phase mains, rated for a 1.5 kW four-pole asynchronous motor; V/f control; built-in EMC filter.

Hardware

Rated motor power: 1.5 kW (4-pole asynchronous motor, 230/240 V class)
Control type: V/f (linear or square-law) with auto-boost; slip compensation
Overload: 150 % of rated output current for 60 s (current limit C22)
Output frequency: 0 … 500 Hz
Built-in I/O: 3 configurable digital inputs, 1 digital output, 1 analog input 0...10 V, 1 analog output 0...10 V, 1 relay output (NO, AC 250 V / 3 A, DC 24 V / 2 A)
Maximum motor cable length: 50 m shielded (low-capacitance), 100 m unshielded

Communication

Built-in ports: RS-485 (LECOM/Modbus via EPM option on SMD family)
Protocols: LECOM serial; Modbus RTU (selectable via code C01)
Communication expansion: None (no fieldbus card on this base unit; X2SFA variant is the filtered single-phase version)

Electrical

Supply voltage: 1/N/PE 230/240 V (180 V -0 % … 264 V +0 %), 50/60 Hz (48 Hz -0 % … 62 Hz +0 %)
Mains input current: 14.0 A nominal at 230/240 V
Output current: 7.0 A nominal (carrier 4/6/8 kHz), 6.4 A nominal (carrier 10 kHz); 10.5 A maximum for 60 s (4/6/8 kHz), 9.6 A maximum for 60 s (10 kHz)
Power consumption: Not published by manufacturer (SMD manual does not list drive power loss)

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Environmental

Operating temperature: 0 … +55 °C (with 2.5 %/°C current derating above +40 °C)
Storage temperature: -20 … +70 °C
Relative humidity: < 95 % non-condensing (Class 3K3 per EN 50178)
Protection rating: IP20

Physical

Dimensions (H×W×D): 146 × 114 × 124 mm (per official SMD 0.25...4.0 kW operating instructions dimensions table, ESMD152X2SFA row)
Weight: 1.2 kg (per official SMD dimensions table)

Lifecycle

Legacy: SMD is a previous-generation AC Tech frequency inverter; official SMD operating instructions still available from Lenze Download Center; no replacement officially designated by Lenze (SMD series is listed under Lenze previous-products inverters; no official SMD-specific migration page or successor model designated by Lenze) (Last **verified:** 2026-10)
Audit status: OFFICIAL_VERIFIED