MDX90A-0040-5E3-4-S00

SEW-EURODRIVE GmbH & Co KG · MOVIDRIVE® modular Single-Axis Inverter (MDX90A)

FEATURES

Single-axis application inverter, 4.0 A rated output at 4 kHz PWM, direct 3~AC line connection.

Hardware

Control modes:
U/f, VFCplus, CFC (field-oriented current controller), ELSM (extended synchronous motor control)

Communication

Built-in ports:
System bus to MOVI-C CONTROLLER (MOVIDRIVE system variant)

Protocols:
Controlled via MOVI-C CONTROLLER (UHX.. family); EtherCAT/CiA402 internal system bus

Communication expansion:
Option cards: /CES11A multi-encoder, /CID21A encoder interface, /CIO21A I/O expansion, /CS..A MOVISAFE safety card, /L conformal-coated PCB

Electrical

Supply voltage:
3 x AC 380-500 V nominal, 50-60 Hz

Line frequency tolerance:
50-60 Hz ±10%

Nominal line current:
3.6 A

Rated output current (at f_PWM = 4 kHz):
4.0 A

Recommended motor power ASM:
1.5 kW

Apparent output power S_N:
3.7 kVA

Overload capacity:
200% of I_N for 3 s at f_PWM = 4 kHz; continuous 100% x I_N at f_PWM = 4 kHz

Continuous output current at f = 0 Hz:
I_N x 0.9

PWM frequency:
4, 8, 16 kHz adjustable

Max output frequency:
U/f 599 Hz; VFCplus 250 Hz; CFC 500 Hz; ELSM 500 Hz

Nominal DC link voltage:
DC 560 V

Minimum braking resistance R_BRmin:
95 Ω

Brake chopper continuous power:
3.7 kW; peak power 200% x S_N

Power section nominal power loss:
27 W

EMC variant:
integrated EMC filter, limit value class C2 acc. to EN 61800-3

Environmental

Operating temperature:
0 to +40 °C without derating; +40 to +60 °C with derating

Storage temperature:
-25 to +70 °C (EN 60721-3-1 class 1K2, non-condensing)

Transport temperature:
-25 to +70 °C (EN 60721-3-2 class 2K3, non-condensing)

Relative humidity:
non-condensing, no moisture condensation (EN 60721-3-3 class 3K3)

Protection rating:
IP20 (EN 60529)

Pollution class:
2 (IEC 60664-1); overvoltage category III

Installation altitude:
up to 1000 m without restriction; 1000-3800 m with I_N derating 1% per 100 m

Physical

Dimensions (H×W×D):
479×95×215 mm (height with shield plates)

Weight:
4.1 kg

Lifecycle

Current SEW-EURODRIVE product line; part of MOVI-C platform (MOVIDRIVE system / MOVIDRIVE technology); official product manual active (Last verified:
2026-09)