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Lenze



smd
Variable Speed
AC Motor Drives



Variable Frequency General Purpose Drives

The smd drive—advanced features at a reasonable price.

No need to compromise

When your application demands “big drive” features—such as analog inputs, preset speeds, and a standard display and pushbuttons—but your mounting constraints are strict, you don’t need to compromise. Rely on the smd Variable Frequency Drive from Lenze to achieve your objectives, and still meet your space requirements. The smd has been developed to provide its users with many of the most wanted advantages of a technologically advanced drive, at a very reasonable cost. So don’t pay for what you don’t really need—and coming from Lenze, you know you won’t compromise on quality.

The main features of the smd drive

With power ratings from .25 – 5.5 Kw and input voltages that include 120, 208, 220, 240, 400 and 480 VAC, 1Ø and 3Ø input, this rugged drive offers a cost-effective, high-performance solution. You’ll appreciate the reliability and ruggedness, enjoy the ease of use, and be surprised at the range of options and advantages provided by this true example of technology for the real world.

Heat sink

also available for cold-plate and through-hole mounting to provide optional mounting flexibility

EPM

a rugged chip that contains the drive’s entire configuration, including the motor’s parameters

Push button controls

easy set up, simple operation

EMC filter

Standard on all single-phase models, footprint filters available for three-phase models

It will make an immediate difference

Right from the beginning, you’ll notice the value—a lower cost of purchase for a drive that offers so many advanced features. As you use it, the other advantages will be clear, including easy set up, simple operation, reduced cost of operation, as well as elimination of additional hardware thanks to isolated I/O on the drive control terminal strip.

Designed and built for efficiency and safety, the smd reduces machine stress and saves panel space.

What does the smd offer?

accurate, stable digital circuitry

IP20 enclosure

smooth acceleration, deceleration, and reversing

motor thermal overload protection

multiple preset speed selection

several programming options, including the revolutionary EPM

High Frequency Output:

optional models available for high-speed applications, up to 1,000Hz

Display

highly visible LED

Lenze quality

advanced features at a reasonable price

Control terminals provide:

- start stop control
- programmable logic inputs
- 0 – 10V speed reference
- 4 – 20 mA speed reference
- programmable relay



A closer look at the smd drive:

The smd drive offers easy set-up and operation; choose your programming option from the following choices:

- buttons on drive face
- EPM Programmer
- PC* (with Lenze “Global Drive Control” software)

Motor thermal overload: microprocessor based thermal protection eliminates need for extra hardware and provides protection regardless of output speed.

Control terminals provide:

- start stop control
- programmable logic inputs
- 0 – 10V speed reference input
- 4 – 20 mA speed reference input
- programmable relay

Current Limit: to 180% with frequency foldback to prevent tripping.

Display: Highly visible LED.

Quiet Operation: adjustable carrier frequency to 10kHz.

Simple yet capable

The smd ships ready for most applications and is easy to configure for nearly any motor control requirements.

Diagnostic Tools: Control terminal strip diagnostics. Also supports optional remote keypad.

Fault History: Review previous 8 faults.

Incredibly Economical: Just call your Lenze office for a quote!

smd Options

Dynamic Braking Kit*: Prepackaged resistor modules with control electronics provide easy mounting within the control cabinet.

DIN Rail Mounting option allows for easy mounting of the drive and DB option onto standard DIN rail. Unique design keeps mounting secure.

Remote Keypad*: remote operator interface that can be mounted in a IP65 panel. Provides start/stop, forward/reverse, speed control and LED display.

EMC Filters: Built into all 1Ø drives. 3Ø drives can be fitted with pre-packaged footprint filters.

Through hole and cold-plate mounting

The smd Series can be ordered for through hole mounting, which puts the heat sink outside the electrical enclosure for better thermal management.

- Anodized heat sink with gasket that will meet IP65 construction!
- There are no fans or other electronics outside of the enclosure.
- The smd drive can be removed from within the enclosure.
- The smd series can also be ordered with “cold-plate” mounting (without heat sink) for applications that provide suitable heat transfer.

A powerful competitive advantage

The smd drive features the innovative Electronic Programming Module (EPM), a rugged chip that contains the drive’s entire configuration, including the motor’s parameters. The EPM allows you to prepare the drive and write the program anywhere, even away from the factory floor, and plug in the memory anytime, even without power. The EPM can be easily removed and replaced with another pre-programmed EPM for fast and efficient program changes.

This innovative module dramatically speeds up drive reconfiguration and adds efficiency and reliability to the process. It ensures the drive is ready to run with virtually no margin for error, stores and protects OEM machine defaults, and lets you handle programming and changeovers in mere seconds.

A battery-powered EPM Programmer allows you to:

- copy one EPM in 2 seconds
- store up to 30 drive programs
- copy from a file to an EPM
- edit and create smd programs
- create and save programs on your PC



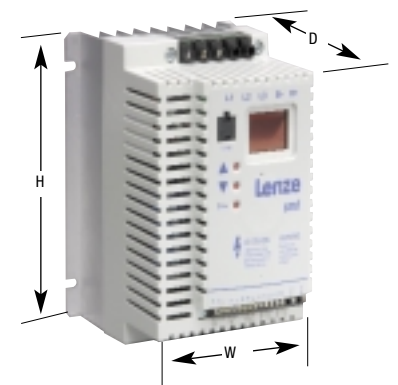
*Available only on models that include an “L” on the 8th position of the model number.

Selections

Line Voltage	208 - 240V 1Ø Includes line filter		208 - 240V 3Ø		400 - 480V 3Ø	
	Model #	Size	Model #	Size	Model #	Size
0.25	ESMD251X2SFA	A5				
0.37	ESMD371X2SFA	A5	ESMD371X2TXA	A5	ESMD371L4TXA	A1
0.55	ESMD551X2SFA	A6				
0.75	ESMD751X2SFA	A6	ESMD751X2TXA	A6	ESMD751L4TXA	A2
1.1			ESMD112X2TXA	A7	ESMD112L4TXA	A3
1.5	ESMD152X2SFA	B5	ESMD152X2TXA	A7	ESMD152L4TXA	B1
2.2	ESMD222X2SFA	B6	ESMD222X2TXA	B6	ESMD222L4TXA	B1
3.0			ESMD302X2TXA	B2	ESMD302L4TXA	B2
4			ESMD402X2TXA	B2	ESMD402L4TXA	B2
5.5			ESMD552L2TXA	C1	ESMD552L4TXA	B2

IP20 Dimensions

Size	Height mm	Width mm	Depth mm
A1	146	74	100
A2	146	74	120
A3	146	74	146
A5	146	74	83
A6	146	74	92
A7	146	74	141
B1	146	95	133
B2	146	95	171
B5	146	95	124
B6	146	95	140



General Specifications

Power: 0.25 to 5.5 kW

Supply Power: 120, 208, 220, 240, 400, 480 VAC 1Ø and 3Ø input

Motors: The smd series is designed for use with standard polyphase induction motors rated for 200, 230, 400, or 460 VAC from 0 to 240Hz.

Enclosure: Rugged convection cooled IP20 with finger safe terminals.

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