

ELECTRONIC MOTOR STARTERS ME SERIES



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Optimizing space and efficient design inside electrical panels is one of the major challenges in industrial automation. As technology evolves and production demands increase, the search for compact and highly efficient solutions is continually growing.

Simple, compact, functional

The electronic motor starters ME series are compact motor starters with 22.5mm wide enclosure, designed for applications that require a very high number of starts and space savings within the panel.

They are built with hybrid technology, combining the long life of a wear-free semiconductor device with the high robustness of a mechanical relay. The range includes direct starters and reversing starters for motors up to 2.4 or 7A, for systems with a nominal voltage up to 500VAC.

All the electronic motor starters are powered by 24VDC and integrate the motor thermal protection. Versions with STO (Safe Torque Off) also feature emergency stop functionality to meet the most demanding safety requirements.



SAFETY INTEGRITY LEVEL

SIL 3

SIL 3 - PL e



Compact

- 22.5mm wide enclosure
- multiple functions in a single device.

The range

- control of motors up to 2.4 or 7A (AC-3, AC-53a)
- direct-on-line or reversing starters
- integrated motor thermal protection
- adjustable motor rated current with front potentiometer
- versions with or without STO emergency stop.

High efficiency

- low consumptions
- long electric life.

Simple

- fast installation
- reduced wiring
- clear and immediate diagnostics
- mounting on 35mm DIN rail.

Safe

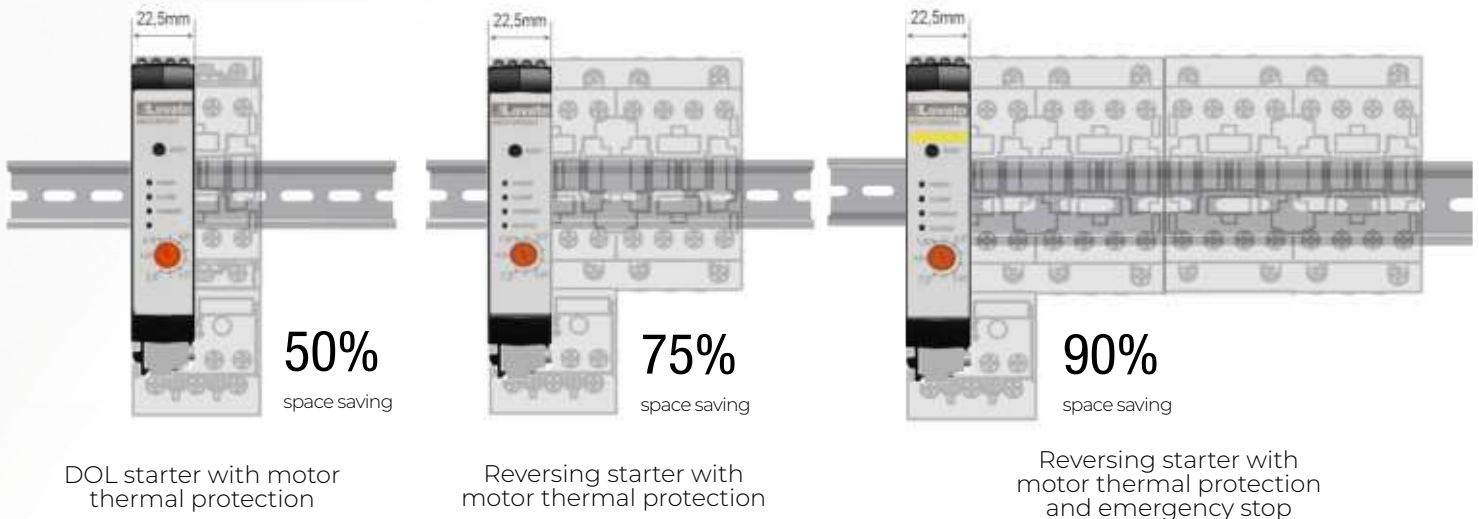
- versions with STO (Safe Torque Off) emergency stop
- safety level SIL3 and PL e.

Typical applications

- conveyor belts
- sorting equipment
- packaging machines
- automatic doors
- access control system
- escalators
- car wash brushes
- automotive industry
- solar trackers
- augers
- hoppers
- machine tools
- pumps
- fans.



- Compact dimensions**
- ultra compact housing 22.5mm width
 - integrated motor start and protection functions in a single device
 - up to 90% space saving compared to a solution made with electromechanical devices.



- Long life and high number of operations**
- hybrid technology, which combines electronic and mechanical components, reduces the wear of electromechanical parts, extending the device's useful life
 - semiconductors are wear-free electronic devices as they are not affected by contact erosion; they are activated during the motor start-up phase when the current is higher
 - the mechanical relay is activated once the start-up is complete, providing a low-resistance path for the current that bypasses the semiconductor, thereby minimizing energy consumption
 - ideal solution for applications requiring high switching frequencies
 - electrical life: 50 million operations.

- Easy installation**
- Motor start-up, protection, and safety functions integrated into a single product:
- reduced wiring time
 - lower risk of errors
 - less number of devices needed within the panel.

- Protection and safety**
- integrated electronic motor thermal protection, class 10A
 - integrated phase loss protection
 - integrated phase imbalance protection
 - ME...S... versions also feature an emergency stop function (STO) with SIL3 (IEC/EN 61508) and PL e (ISO 13489) performance levels, to meet the most stringent safety requirements and enhance system reliability.

Several functions in one single device

Depending on the model, multiple functions can be integrated into the same device: forward running, reverse running, motor thermal protection and emergency stop (STO). They are the ideal solution for applications where multiple motors need to be controlled along a line, such as conveyor belts, sorting equipment, machine tools, and many others.



Running forward



Running in reverse



Motor thermal protection



Emergency stop (STO)

Clear and immediate diagnostics

4 status LEDs on front for the signaling of the starter and motor status:

- **POWER** = presence of auxiliary supply voltage 24VDC
- **FORWARD** = motor forward running
- **ALARM** = alarm active
- **REVERSE** = motor reverse running (ME...R... only).



Digital inputs and outputs

The entire range includes a front button for manual alarm reset and the following digital inputs:

- 1 input for forward running command
- 1 input for reverse running command (ME...R... only)
- 1 input for selecting the reset mode of motor thermal protection alarm (automatic or manual)
- 1 input for the alarm reset via remote contact.

All models also feature integrated digital outputs for signaling the status of the starter or motor:

- 1 relay output with a changeover contact for alarm signaling, 3A (230V, AC15), 2A (24V, DC13)
- 2 PNP 24VDC 40mA outputs for indicating motor forward rotation direction or reverse rotation direction (ME...R... only)

These outputs allow the motor status or any active alarms to be signaled to external devices, such as panel-mounted indicators or intelligent devices like PLCs, without the need for additional auxiliary contacts.



ME070FD024



ME070RSD024

Order code	Rated current I _e AC-53a	Rated power (400VAC)	Adjustment range I _e	Qty per pkg	Width
	[A]	[kW]	[A]	n°	[kg]
Direct-on-line starters with integrated motor thermal protection, operational voltage U _e ≤ 500VAC, auxiliary and control supply voltage 24VDC.					
ME024FD024	2.4	0.75	0.18-2.4	1	0.300
ME070FD024	7.0	3	1.50-7.0	1	0.300
Reversing starters with integrated motor thermal protection, operational voltage U _e ≤ 500VAC, auxiliary and control supply voltage 24VDC.					
ME024RD024	2.4	0.75	0.18-2.4	1	0.300
ME070RD024	7.0	3	1.50-7.0	1	0.300
Direct-on-line starters with integrated motor thermal protection and STO (Safe Torque Off) emergency stop, operational voltage U _e ≤ 500VAC, auxiliary and control supply voltage 24VDC.					
ME024FSD024	2.4	0.75	0.18-2.4	1	0.300
ME070FSD024	7.0	3	1.50-7.0	1	0.300
Reversing starters with integrated motor thermal protection and STO (Safe Torque Off) emergency stop, operational voltage U _e ≤ 500VAC, auxiliary and control supply voltage 24VDC.					
ME024RSD024	2.4	0.75	0.18-2.4	1	0.300
ME070RSD024	7.0	3	1.50-7.0	1	0.300

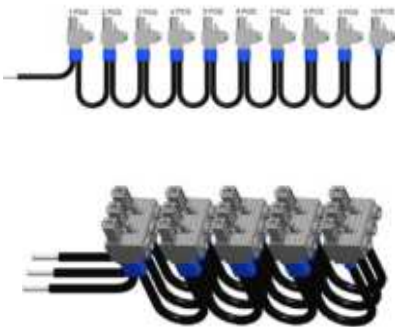
Technical characteristics

- rated motor current: 2.4A or 7A AC-3 and AC-53a
- operational voltage 40...500VAC 50/60Hz
- auxiliary and control supply voltage 24VDC
- possibility to command both three-phase and single-phase motors with poles connected in series (only forward running)
- integrated electronic motor thermal protection with tripping class 10A
- integrated protection against phase loss
- integrated protection against phase imbalance (current asymmetry)
- versions with STO (Safe Torque Off) emergency stop with Safety Integrity Level SIL3 (IEC/EN 61508) and Performance Level "PL e" (ISO 13849)
- 4 digital inputs: run forward, run reverse (ME...R... only), reset mode selection of motor thermal protection alarm, alarm reset input
- 3 outputs: 1 relay output with changeover contact for alarm signaling, 2 PNP digital outputs for motor running forward and reverse (ME...R... only) direction signaling
- 4 status LEDs on front for diagnostics
- potentiometer on front for the adjustment of the rated motor current
- button on the front for manual alarm reset
- electrical life: 50 million cycles
- mechanical life: 15 million cycles
- operating temperature: -25...+70°C (see the derating curve on the technical manual)
- 35mm DIN rail mounting (IEC/EN/BS 60715)
- protection degree: IP20.

Certifications and compliance

Certifications obtained: cULus.

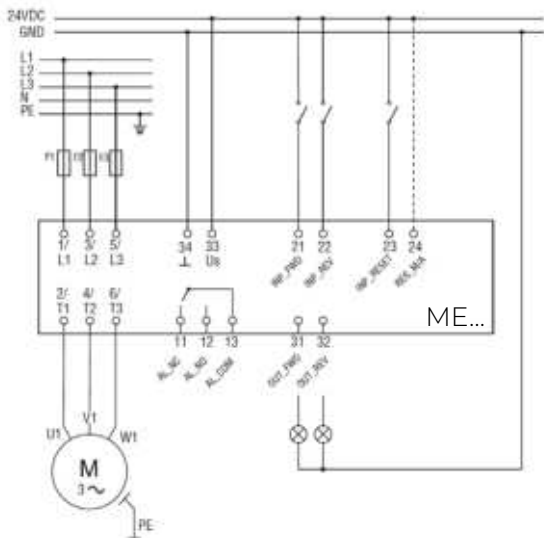
Compliant with standards: IEC/EN/BS 60947-4-2, UL 60947-4-2, CSA C22.2 n° 60947-4-2. On the versions type ME...S..., the STO function is certified by TUV with Safety Integrity Level 3 according to IEC/EN/BS 61508 and Performance Level PL e according to ISO 13849.



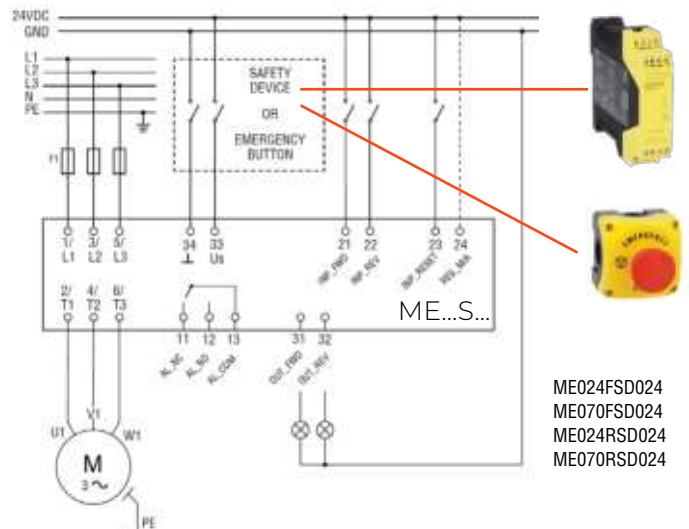
Order code	Description	Qty per pkg
		n°
MEXB02	3-phase parallel bridge for 2 ME starters	1
MEXB03	3-phase parallel bridge for 3 ME starters	1
MEXB04	3-phase parallel bridge for 4 ME starters	1
MEXB05	3-phase parallel bridge for 5 ME starters	1
MEXB06	3-phase parallel bridge for 6 ME starters	1
MEXB07	3-phase parallel bridge for 7 ME starters	1
MEXB08	3-phase parallel bridge for 8 ME starters	1
MEXB09	3-phase parallel bridge for 9 ME starters	1
MEXB10	3-phase parallel bridge for 10 ME starters	1

WIRING DIAGRAMS

Standard application

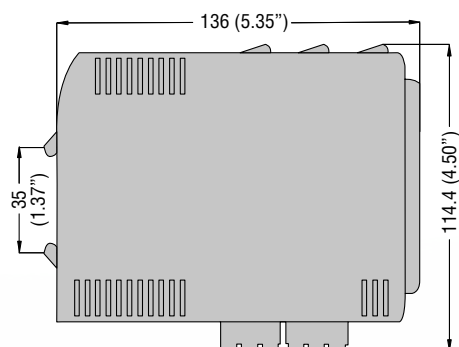
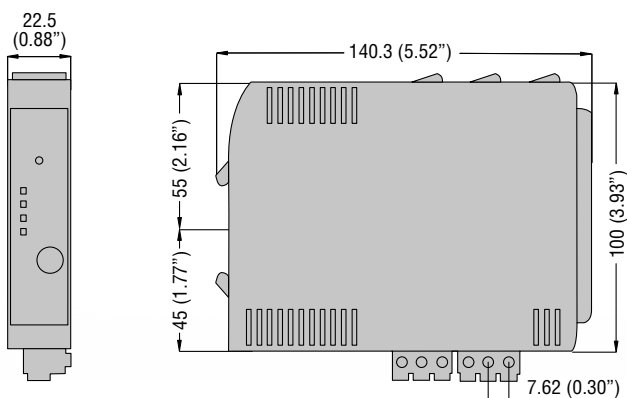


ME024FD024
ME070FD024
ME024RD024
ME070RD024



ME024FSD024
ME070FSD024
ME024RSD024
ME070RSD024

DIMENSIONS [mm(in)]





ELECTRONIC MOTOR STARTERS ME SERIES



ENERGY AND AUTOMATION

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