

# EMX4e & EMX4i Digital Soft Starter





# EMX4e & EMX4i

## Digital Soft Starter

The EMX4 series offers versatile motor control and protection, in a compact and user-friendly package.

Optimised for pumping and compressor-related applications, the EMX4 delivers a refined feature set, including adaptive control to prevent water hammer.

For easy customisation in more complex applications, the EMX4i includes additional features such as soft braking and auto-scheduling.

## FEATURES

- Compact design saves valuable space within your motor control panel
- Full graphical display with support for multiple languages. A simple menu structure with quick setup option makes it easy to commission and maintain your system
- Remote keypad option provides full remote control and graphical monitoring in place of separate meters and interfaces
- Adaptive control provides optimal start and stop in pumping applications, eliminating water hammer
- On-board USB provides quick setup and backup of starting parameters to greatly improve the level of in-field support and minimise downtime.
- Internal bypass across the entire range
- Integrate your starter with external sensors or a communications network, using slot-in accessory modules

### Space-saving footprint

The compact form makes EMX4 series starters easier to integrate into electrical panels where space is limited, saving you time and effort in the panel design process. With two frame size serving the entire range from 24A to 1250A, they are up to 30% smaller than other soft starter solutions.

### Energy saving

All models have an internal bypass to reduce your energy usage and operating expenditure. A bypassed soft starter is the most efficient electronic motor control solution for fixed speed applications, and provides maximum energy saving when used in conjunction with an IE3 motor.

### Accessory Modules

The specialised smart module provides enhanced functionality and control for a variety of standalone applications, including pumping and compressors. For larger networked installations, a wide range of communication options are available. All accessory modules slot directly into the starter, making them easy to fit and use without adding to the footprint.

## FEATURES

### Streamlined setup process

- Configuration profiles for common applications
- Built-in metering and inputs/outputs

### Easy to understand interface

- Multi-language menus and displays
- Descriptive option names and feedback messages
- Real-time performance graphs

### Support energy efficiency

- IE3 compatible
- 99% energy efficient when running
- Internal bypass
- Soft start technology avoids harmonic distortion

### Extensive range of models

- 24 A to 1250 A (nominal)
- 200 VAC to 525 VAC
- 380 VAC to 690 VAC
- Inside delta installation

### Versatile starting and stopping options

- Adaptive control
- Constant current
- Current ramp
- Timed voltage ramp soft stop
- Coast to stop
- DC brake
- Soft brake

### Customisable protection

- Motor overload
- Excess start time
- Undercurrent
- Overcurrent
- Current imbalance
- Input trip
- Motor thermistor

### Extensive input and output options

- Remove control inputs (2 x fixed, 2 x programmable)
- Relay outputs (1 x fixed, 2 x programmable)
- Analog output

### Optional features for advanced applications

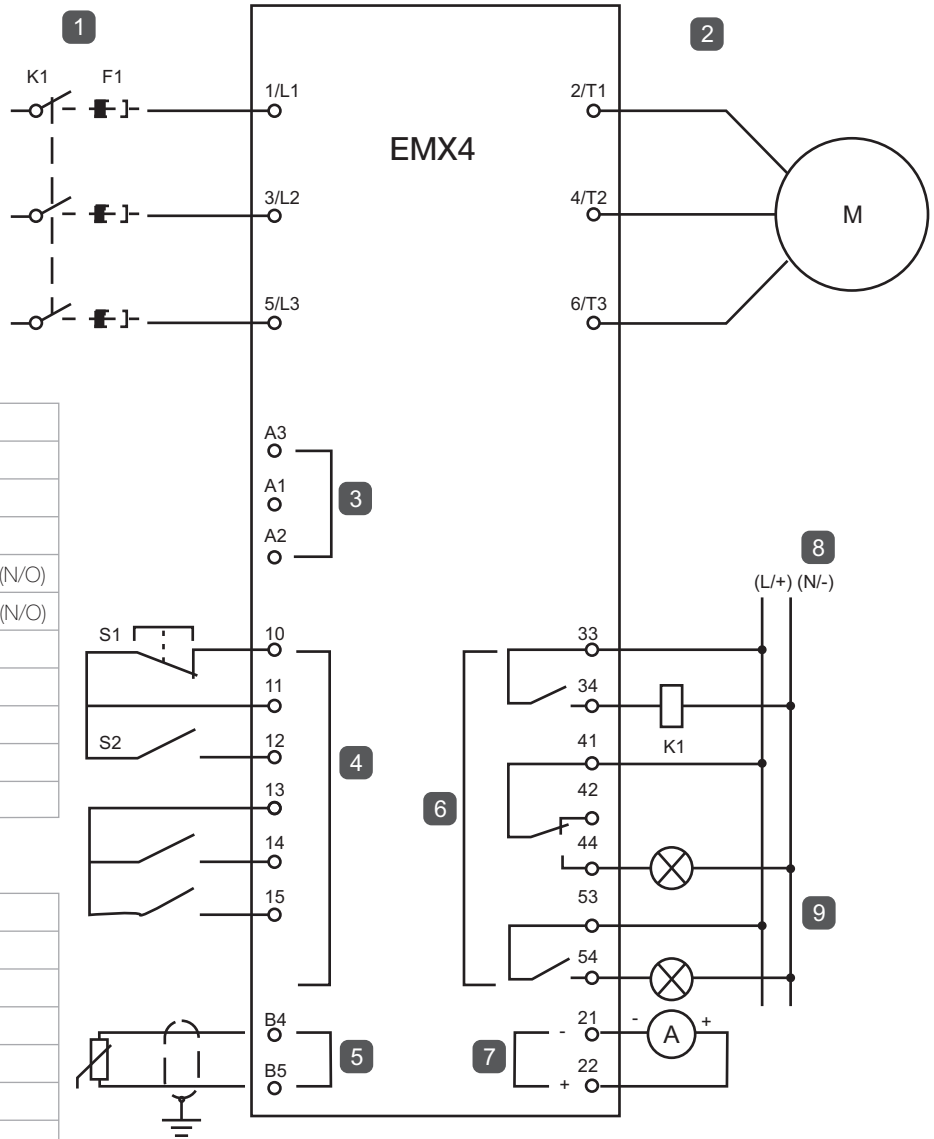
- Smart cards
- Communication modules: DeviceNet, Ethernet/IP, Modbus RTU, Modbus TCP, Profibus, Profinet



# TYPICAL MOTOR CONNECTION

The EMX4 is installed with a main contactor (AC3 rated). Control voltage must be supplied from the input side of the contactor.

The main contactor is controlled by the main contactor output (33, 34).



<b>K1</b>	Main contactor
<b>F1</b>	Semiconductor fuses (optional)
<b>10, 11 (S1)</b>	Reset
<b>11, 12 (S2)</b>	Start/Stop
<b>13, 14</b>	Programmable input A (default = Input Trip (N/O))
<b>13, 15</b>	Programmable input B (default = Input Trip (N/O))
<b>B4, B5</b>	Motor thermistor input
<b>33, 34</b>	Main contactor output
<b>41, 42, 44</b>	Relay output A (default = Run)
<b>53, 54</b>	Relay output b (default = Trip)
<b>21, 22</b>	Analog output

<b>1</b>	Three-phase supply
<b>2</b>	Motor
<b>3</b>	Control voltage (soft starter)
<b>4</b>	Digital inputs
<b>5</b>	Motor thermistor input
<b>6</b>	Relay outputs
<b>7</b>	Analog outputs
<b>8</b>	Control voltage ( external equipment)
<b>9</b>	Pilot lamps

Product improvement is a continuous process. For the latest information and special application, please contact any of our offices listed here. Product photographs shown for representative purpose only.



**L&T Electrical & Automation, Electrical Standard Products**  
 L&T Business Park, TC-2, Tower B, 3rd Floor, Gate No. 5, Saki Vihar Road, Powai,  
 Mumbai - 400 072, INDIA [www.Lntebg.com](http://www.Lntebg.com)

**Customer Interaction Center (CIC)**  
 BSNL / MTNL (toll-free): 1800 233 5858 Reliance (toll-free): 1800 200 5858  
 Tel: 022 6774 5858 Email: [cic@Lntebg.com](mailto:cic@Lntebg.com) Web: [www.Lntebg.com](http://www.Lntebg.com)

