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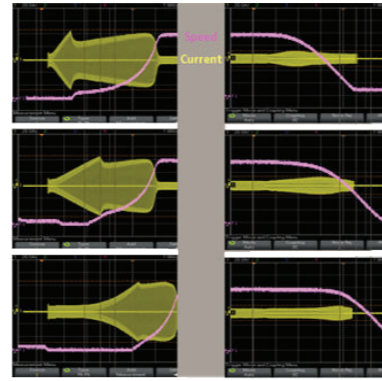
MOTOR CONTROL SPECIALISTS

Soft Starter EMX4i
from 24 A up to 1250 A



Soft Starter EMX4i - new defined

The EMX4i soft starter series sets new standards for soft starter technology. It is smaller and powerful, equipped with new features.



Perfect operation/Programming

- Comprehensive plain text
- Multi-lingual including German
- Application descriptive
- Extensive feedbacks
- Real-time graphs
- USB Interface

Supports energy efficiency

- Compatible with IE3 motors
- Electrical efficiency > 99%
- Integrated bypass
- No harmonics

Wide model range

- 24 A - 1250 A
- 200 - 525 VAC oder 380 - 690 VAC
- Inside Delta connection is possible

Rationally organised

- Configuration profiles ready for many applications
- Simulation mode
- Clock + weekly calendar

Inputs/Outputs

- Digital inputs: 2 x fixed, 2 x programmable
- Analog output: 1 x programmable
- Relay output: 1 x fixed, 2 x programmable

Various start/stop scenarios

- Calendar controlled start/stop
- Application adaptive ramps
- Current controlled ramps
- Constant current ramps
- Kickstart
- Pump cleaning run
- Timed ramps
- Freewheel ramp
- DC brake
- Soft brake
- Reversal of direction of rotation

Adaptable protection functions

- Motor overload
- Excessive start detection
- Undercurrent/Overcurrent detection
- Undervoltage/Overvoltage detection
- Current-balance deviation detection
- Emergency stop
- PTC input
- Power-Through bypassed defective thyristor
- FIRE emergency operation

Accessories

- Profinet, Ethernet/IP, Modbus TCP, Modbus RTU, Profibus, DeviceNet
- Customisable smart card
- Remote control
- Finger guard

Simple commissioning and maintenance

Smart does not have to mean complex.

While the EMX4i offers more functionality than before, it has been designed to make your life easier.

A Starter for the future

The soft starter EMX4i includes starter, motor and system protection functions, complete with alarms to alert you to any potential issues.



In addition, connection to other devices and support services is easier. Connectivity has been enhanced with a range of **communication cards** to enable network connections and increase accessibility.

By enhancing the display and **connectivity functions**, and making them intuitive, it is easier to access the right information when you need it, enhancing your overall efficiency.



USB Port

The new USB port allows straightforward upload, download and storage of starter performance information, increasing your ability to manage the system effectively.

Pocket Technician App

Troubleshooting starting and stopping issues is now easier than ever with the Pocket Technician app. Easily retrieve useful data from any EMX4i soft starter, including starter model, status, and details of the last three trip events. View the data on-site and diagnose issues in the field, or share it with your local support team for further assistance.



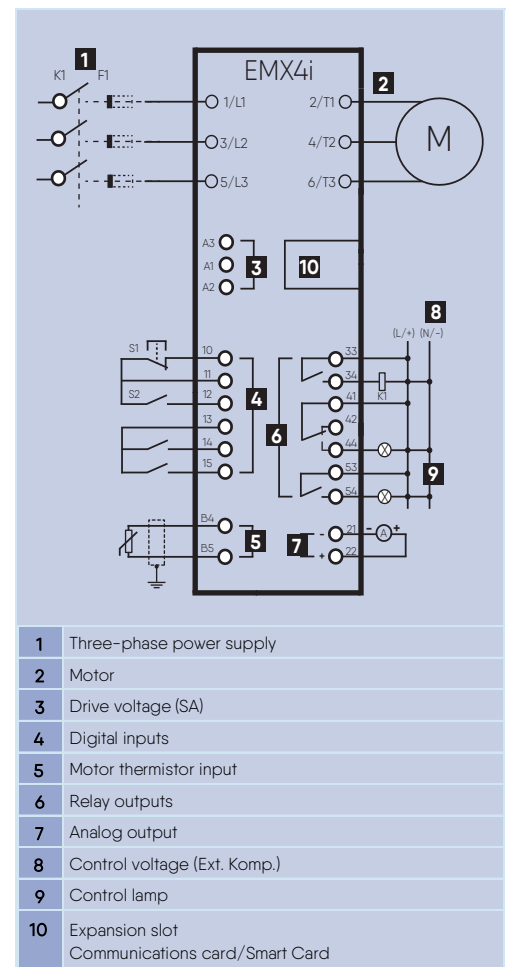
Smart Card

By upgrading your EMX4i with an industry-specific smart card, your system can be specifically built around a central point of intelligent control and communication.

Specification EMX4i-Series

| Model | max. Motor Rating | Current Ratings | | | | WxHxD (mm) | Weight (kg) | |
|---------------------|-------------------|--------------------------|--------------------------|--------------------|--------------------|-------------------|-----------------|--------------------|
| | | 3ph. 208-480VAC, IP20/00 | depending on application | AC53b 3.0 - 10:350 | AC53b 3.5 - 15:345 | | | AC53b 4.0 - 10:350 |
| EMX4i-0024B-V5-C1-H | 11,0 kW | | 24,0 A | 20,0 A | 19,0 A | 17,0 A | 152 X 336 X 231 | 4,8 |
| EMX4i-0042B-V5-C1-H | 18,5 kW | | 42,0 A | 34,0 A | 34,0 A | 32,0 A | 152 X 336 X 231 | 4,8 |
| EMX4i-0052B-V5-C1-H | 22,0 Kw | | 52,0 A | 42,0 A | 39,0 A | 34,0 A | 152 X 336 X 231 | 4,9 |
| | | | AC53b 3.0 - 10:590 | AC53b 3.5 - 15:585 | AC53b 4.0 - 10:590 | AC53b 5.0 - 5:595 | | |
| EMX4i-0064B-V5-C1-H | 30,0 kW | | 64,0 A | 63,0 A | 60,0 A | 54,0 A | 152 X 336 X 231 | 4,9 |
| EMX4i-0069B-V5-C1-H | 37,0 kW | | 69,0 A | 69,0 A | 69,0 A | 65,0 A | 152 X 336 X 231 | 4,9 |
| EMX4i-0105B-V5-C1-H | 45,0 kW | | 105,0 A | 86,0 A | 84,0 A | 77,0 A | 152 X 336 X 231 | 5,5 |
| EMX4i-0115B-V5-C1-H | 55,0 kW | | 115,0 A | 108,0 A | 105,0 A | 95,0 A | 152 X 336 X 231 | 5,5 |
| EMX4i-0135B-V5-C1-H | 60,0 kW | | 135,0 A | 129,0 A | 126,0 A | 115,0 A | 152 X 336 X 231 | 5,5 |
| EMX4i-0184B-V5-C1-H | 75,0 kW | | 184,0 A | 144,0 A | 139,0 A | 127,0 A | 216 X 495 X 244 | 12,7 |
| EMX4i-0200B-V5-C1-H | 90,0 kW | | 200,0 A | 171,0 A | 165,0 A | 150,0 A | 216 X 495 X 244 | 12,7 |
| EMX4i-0229B-V5-C1-H | 110,0 kW | | 229,0 A | 194,0 A | 187,0 A | 170,0 A | 216 X 495 X 244 | 12,7 |
| EMX4i-0250B-V5-C1-H | 132,0 kW | | 250,0 A | 244,0 A | 230,0 A | 202,0 A | 216 X 495 X 244 | 12,7 |
| EMX4i-0352B-V5-C1-H | 160,0 kW | | 352,0 A | 287,0 A | 277,0 A | 258,0 A | 216 X 523 X 243 | 15,5 |
| EMX4i-0397B-V5-C1-H | 200,0 kW | | 397,0 A | 323,0 A | 311,0 A | 289,0 A | 216 X 523 X 243 | 15,5 |
| EMX4i-0410B-V5-C1-H | 220,0 kW | | 410,0 A | 410,0 A | 410,0 A | 400,0 A | 216 X 523 X 243 | 15,5 |
| EMX4i-0550B-V5-C1-H | 280,0 kW | | 550,0 A | 527,0 A | 506,0 A | 464,0 A | 216 X 523 X 243 | 19,0 |
| EMX4i-0580B-V5-C1-H | 315,0 kW | | 580,0 A | 579,0 A | 555,0 A | 508,0 A | 216 X 523 X 243 | 19,0 |
| EMX4i-0835B-V5-C1-H | 400,0 kW | | 835,0 A | 654,0 A | 631,0 A | | 446 X 618 X 310 | 51,0 |
| EMX4i-0940B-V5-C1-H | 500,0 kW | | 940,0 A | 736,0 A | 708,0 A | | 446 X 618 X 310 | 51,0 |
| EMX4i-1070B-V5-C1-H | 560,0 kW | | 1070,0 A | 950,0 A | 905,0 A | | 446 X 618 X 310 | 61,0 |
| EMX4i-1230B-V5-C1-H | 630,0 kW | | 1230,0 A | 1154,0 A | 1090,0 A | | 446 X 618 X 310 | 63,0 |
| EMX4i-1250B-V5-C1-H | 700,0 kW | | 1250,0 A | 1250,0 A | 1250,0 A | | 446 X 618 X 310 | 65,0 |

| | |
|---------------------------------|---|
| Main voltage | V5 = 200 to 525 VAC (± 10%) ; V7 = 380 to 690 VAC (± 10%) |
| Control voltage | C1 [A1, A2] 110-120 VAC (+10 % / -15 %), 600mA; C1 [A2, A3] 220-240 VAC (+10 % / -15 %), 600 mA C2 [A1, A2] 24 VAC/VDC (± 20%), 2,8 A |
| Mains frequency | 50 Hz – 60 Hz (± 5 Hz) |
| Form designation | Bypassed or continuous, semiconductor motor starter form 1 |
| Short circuit capability | Coordination with semiconductor fuses Type 2 Coordination with HRC fuses Type 1 |
| Inputs | Inout rating "active" 24 VDC, 8 mA (approx.); Motor thermistor [B4, B5] Trip >3,6 kΩ, Reset <1,6 kΩ |
| Outputs | Relay outputs 10 A at 250 VAC resistive, 5 A at 250 VAC AC15 pf 0,3 Main contactor (33, 34) Normally Open Relay output A (41, 42, 44) Changeover; Relay output B (53, 54) Normally Open Analog output (21, 22) Maximum load 600Ω (12 VDC at 20 mA); Accuracy ± 5 % |
| Protection class | Frame size 1 IP20, frame sizes 2, 3 & 4 IP00 |
| Operating temperature | -10 °C up to +60 °C, above 40 °C with derating |
| Storage temperature | -25 °C up to +60 °C |
| Humidity | 5 % up to 95 % relative humidity |
| Pollution degree | Pollution degree 3 |
| Vibration | IEC 60068-2-6 |
| EMC Emissions | IEC 60947-4-2 class B |
| EMC Immunity | IEC 60947-4-2 |
| Heat dissipation | During start: 4,5 watts / ampere During run: EMX4i-0024B - 0052B ≤ 35 watts (approx.); EMX4i-0064B - 0135B ≤ 50 watts (approx.); EMX4i-0184B - 0250B ≤ 120 Watt (ca.); EMX4i-0352B - 0580B ≤ 140 watts (approx.) |
| Accessories (optional) | Smart Card, communication cards, Remote Keypad, Finger guard kit, PC software |
| Communications options | DeviceNet, Ethernet/IP, Modbus RTU, Modbus TCP, Profibus, Profinet |
| Certification | CCC: GB 14048.6; CE: EN 60947-4-2; C-UL: C22.2 N° 60947-4-2; UL: UL 60947-4-2; Marine: Lloyds Marine No 1 Specification; ABS Steel Vessels Rules 2010; RCM: IEC 60947-4-2 |



- 1 Three-phase power supply
- 2 Motor
- 3 Drive voltage (SA)
- 4 Digital inputs
- 5 Motor thermistor input
- 6 Relay outputs
- 7 Analog output
- 8 Control voltage (Ext. Komp.)
- 9 Control lamp
- 10 Expansion slot
Communications card/Smart Card



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