



### 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.







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

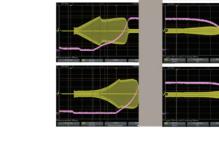
24 A - 1250 A 200 - 525 VAC oder 380 - 690 VAC Inside Delta connection is possible

#### **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.





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..

#### 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.

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.



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

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	AC53b 5.0 - 5:355		weight (kg/
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					
	Relay outputs 10 A at 250 VAC resistive, 5 A at 250 VAC AC15 pf 0,3					
	Main contactor (33, 34) Normally Open					
Outputs	Relay output A (41, 42, 44) Changeover; Relay output B (53, 54) Normally Open					
	Analog output (21, 22) Maximum load 600 $_{\Omega}$ (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					
	During start: 4,5 watts / ampere					
Heat dissipation	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: C222 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					

