AuCom

MOTOR CONTROL SPECIALISTS

Soft starter CSXi
from 18 A up to 200 A

Soft Starter CSXi – Made simple

Our CSXi series soft starters allow you greater control over the starting and stopping of three phase motors.

The CSXi series is ideal for simple but also advanced applications, with motor protection in the power range from 7,5 to 110 kW.

The CSXi soft starter is a constant current system, complete with current measurement and control.

In addition to soft start and soft stop, the CSXi provides a range of motor protection functions, including motor overload, phase loss and excess start time.

The CSXi also features a programmable relay.

Compact Design

The CSXi soft starter is a compact unit suitable for mounting in a switchboard or motor control cabinet without the need for an external bypass contactor. At only 165 mm deep it is easy to mount in flat control cabinets.

For motors up to 60 A the soft starter can be mounted on a DIN-rail, or the CSX may be mounted in a bank horizontally to use less space, often critical in certain switchboards.

Simple to integrate

With features such as dedicated output relays to control the upstream main contactor and power factor correction capacitors, CSXi soft starters are easy to integrate into complete moto control solution.

Protection

The CSXi has built-in thermal model motor overload protection. The motor current is continuously monitored and the expected temperature is calculated based on this monitored current. The user sets the Motor Trip Class, and the CSXi will trip when the calculated motor temperature reaches 105 %.

An external motor protection device is not required when using a CSXi soft starter.

Energy savings

CSXi soft starters are equipped with an internal bypass function to reduce operating costs.

CSXi starters are 99,5 % efficient during run, produce no harmonics and are the most energy efficient solution for fixed speed applications with variable load.

Control adjustments

1 Current ramp
2 Current limit
3 Motor Trip class
4 Motor FLC
5 Stop ramp time
6 Excess start time
7 Auxiliary relay
8 Phase sequence
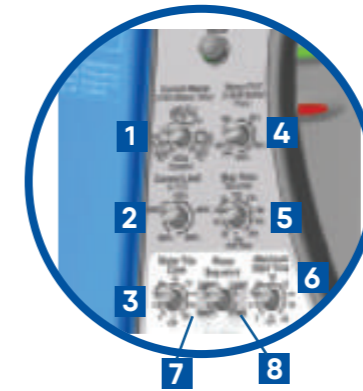
Shutdown message

The CSXi series uses two LEDs to indicate the operating status of the unit. The LEDs flash in a coded manner to distinguish error messages. (Certain shutdown messages are only available with optional accessories).

Trip code table allows diagnostics without manual

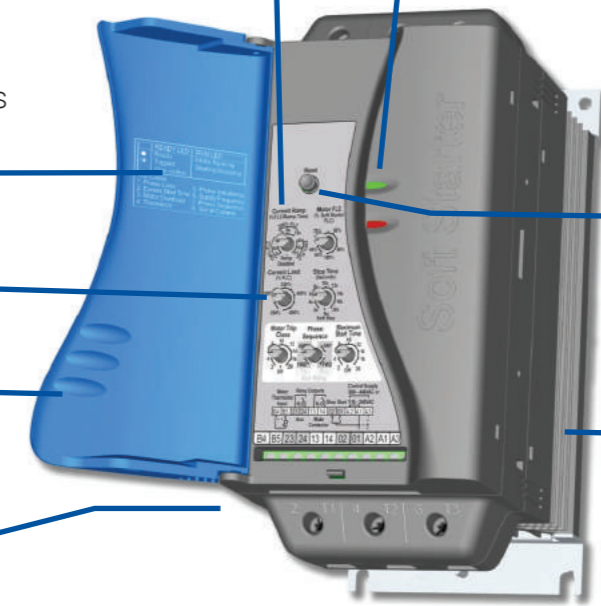Easy to program via rotary switches

Easy access door

Small footprint and depth saves space

Mounting holes for easy mounting and removal

Reset push button

CSXi soft starters may be mounted side by side or horizontally.

The most energy efficient outcome for fixed speed applications

99,5% Efficiency

Internal bypass makes CSXi Soft Starters 99,5 % efficient when running.

80% Reduction in wasted energy

Compared to a misapplied drive the 99,5 % efficiency of CSXi equates to around an 80 % reduction in waste energy.

0% Harmonics

CSXi produces no harmonics during run, improving overall power quality and eliminating system losses resulting from harmonics.

Standard specifications CSXi-Series

Model	max. Motor Rating	CSXi Rating		WxHxD (mm)	Weight (kg)
3ph. 208-480VAC, IP20/00	depends on application	AC53b 4.0 - 6:354	AC53b 4.0 - 20:340		
CSXi-007-V4-C1	7,5 kW	18 A	17 A	98 x 200,4 x 166	2,4
CSXi-015-V4-C1	15,0 kW	34 A	30 A	98 x 200,4 x 166	2,4
CSXi-018-V4-C1	18,5 kW	42 A	36 A	98 x 200,4 x 166	2,4
CSXi-022-V4-C1	22,0 kW	48 A	40 A	98 x 200,4 x 166	2,4
CSXi-030-V4-C1	30,0 kW	60 A	49 A	98 x 200,4 x 166	2,4
		AC53b 4.0 - 6:594	AC53b 4.0 - 20:580		
CSXi-037-V4-C1	37,0 kW	75 A	65 A	145,1 x 214 x 192	4,3
CSXi-045-V4-C1	45,0 kW	85 A	73 A	145,1 x 214 x 192	4,3
CSXi-055-V4-C1	55,0 kW	100 A	96 A	145,1 x 214 x 192	4,3
CSXi-075-V4-C1	75,0 kW	140 A	120 A	201,5 x 240 x 212	6,8
CSXi-090-V4-C1	90,0 kW	170 A	142 A	201,5 x 240 x 212	6,8
CSXi-110-V4-C1	110,0 kW	200 A	165 A	201,5 x 240 x 212	6,8

Main voltage	V4 = 3x 200 to 440 VAC (+ 10 % / − 15 %) ; V6 = 3x 200 to 575 VAC (+ 10 % / − 15 %)
Control voltage	C1: 110 to 240 VAC (+10 % / −15 %) or: 380 to 440 VAC (+10 % / −15 %) C2: 24 VAC/VDC (± 20%)
Mains frequency	45 Hz – 60 Hz
Form designation	Bypassed or continuous, semiconductor motor starter form 1
Inputs	Start [terminal 01]: Normally open 150 kΩ at 300 VAC and 5,6 kΩ at 24 VAC/VDC Stop [terminal 02]: Normally closed 150 kΩ at 300 VAC and 5,6 kΩ at 24 VAC/VDC
Outputs	Main contactor [terminal 13,14]: Normally open 6 A, 30 VDC / 6 A, 400 VAC Programmable relay [terminal 23, 24]: Normal open 6 A, 30 VDC / 6 A, 250 VAC
Protection class	Frame sizes 1 & 2 IP20, frame size 3 IP00
Operating temperature	−10 °C to +60 °C
Storage temperature	−25 °C to +60 °C (up to +70 °C for max. 24 hours)
Humidity	5 % to 95 % relative humidity
Pollution degree	Pollution degree 3
Vibration	IEC 60068 – Test Fc Sinusoidal 4 Hz to 13,2 Hz: ± 1 mm displacement; 13,2 Hz to 200 Hz: ± 0,7 g
EMC Emissions	Equipment class (EMC) class B
EMC Immunity	IEC 61000-2-4 (class 3), EN / IEC 61800-3
Heat dissipation	During Start: 3,0 watts / ampere During Run: 10 watts (typical)
Accessories (optional)	Keypad, Finger guard kit, PC software
Communications options	DeviceNet, Modbus, Profibus, Profinet, Ethernet/IP, Modbus TC/IP, AS-i
Certification	CCC: GB 14048.6; CE: EN 60947-4-2; UL / C-UL: UL 508; TP TC 004/2011, TP TC 020/2011 Marine: Lloyds Marine No 1 Specification; RCM: IEC 60947-4-2

M	Motor (three-phase)
K1	Main contactor
13, 14	Main contactor output
23, 24	Programmable output (set to „shutdown")