eltwin motron

Big enough to matter - Small enough to care

Soft starter for 3-phase motors with integrated by-pass

Rated operational voltage 200...480VAC
Rated operational current: 30A (rms)
51A inside delta
Rated operational current: 50A (rms)
86A inside delta
Frequency: 50/60Hz
Phase sequence protection
Integrated by-pass
Relay for operating signal
Soft start / soft stop
Kickstart / starting torque
Status via LED and signal relay
Fault, via LED and signal relay
Power supply monitoring

Selection and technical specifications:

Product type	Rated operational voltage Ue	EAN Nr.	Rated operational current Ie	Control voltage Uc
SMC 33 DA 4830BPi	200...480VAC	5705609003142	30A AC 53b	230VAC
SMC 33 DA 4850BPi	200...480VAC	5705609003159	50A AC 53b	230VAC

Product description:

The soft starter is 3-phase controlled with integrated by-pass relays which give a compact solution and reduce the wiring.
The soft starter is dimensioned to handle many starts per hour.
The soft starter is used for start-up of 3-phase motors in applications such as pumps, compressors, conveyor belts, escalators, centrifugal fans, crushers, mixers, mills and stirrers etc.

Protection:

The soft starter can be used with motor protection, which protects the engine against overload.
Motor protection type 10A and type 10 is recommended. At very high load during soft start and soft stop, type 20 is used.
The soft starter to be short-circuit protected by circuit breakers or fuses. It is recommended to use the circuit breaker or fuse that has a lower I2t value than the soft-starter's. National regulations must be observed.
See general technical information about the installation of soft starter.

Technical specifications:

Supply voltage specifications:		
Rated operational voltage Ue	:	3 x 200...480VAC +10/- 15%
Current Ie SMC33DA4830BPi (In line)	:	3 x 30A (rms)
Current Ie SMC33DA4830BPi (Inside delta)	:	3 x 51A (rms)
Current Ie SMC33DA4850BPi (In line)	:	3 x 50A (rms)
Current Ie SMC33DA4850BPi (Inside delta)	:	3 x 86A (rms)
Rated AC frequency	:	50/60Hz
By-pass	:	With internal by-pass relay
Categori	:	AC - 53b

Control voltage specifications: (L - N)		
Control voltage Uc	:	1 x 230 Vac +/-15%
Control current Ic (4830BPi)	:	<2mA @Uc = 230Vac (L -N)
Control current Ic (4850BPi)	:	<3mA @Uc = 230Vac (L -N)

Controlsignal:		
Start/stop (A1 - A2)	:	230 Vac +/-15%
Signal output	:	3A @ 12...250 Vac/Vdc (signal relay)

Adjustable settings:			
Ramp up	:	16 step	0,5...30 sec.
Ramp down	:	16 step	0,5...60 sec.
Initial torque / kick start	:	8+8 step	200mS / 0...85%
Switch for inline / inside delta / L1/L2/L3	:	4 step (2 In line / 2 Inside delta)	

General specifications:			
Initial torque		:	0 … 85%
Motor current nominal	30A	:	30A
Motor current nominal	50A	:	50A

Semiconductor data:

Product type	Rated operational current	I^2t	Short circuit protection
SMC 33 DA 4830BPi	30A	6300 A^2s	80A max.: gl/gG
SMC 33 DA 4850BPi	50A	25300 A^2s	125A max.: gl/gG

SMC 33 DA 4830BPi

Environmental conditions:

Degree of protection	: IP 20
Storage temperature	: -20º to 80ºC
Operating temperature large	: -5º ... 40ºC
Pollution degree	: 3

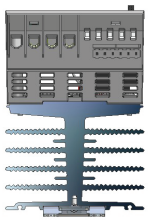
Features:

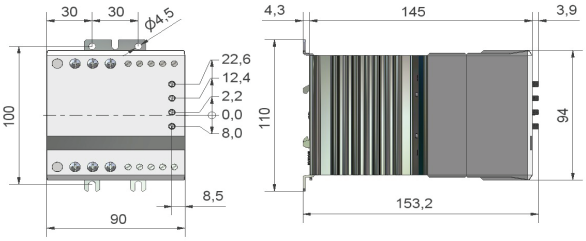
Soft starter with microprocessor control.
Line frequency detection.
Setting rotary switches, ramp up, ramp down, kick start and / or starting torque increase.
Fault, indication LED and signal relay.
Internal by-pass.
Power supply monitoring

Operation in ambient temperatures exceeding 40ºC is possible if the power dissipation is limited either by reducing the steady-state current.

40ºC	50ºC	60ºC
100% Load duty-cycle	80% Load duty-cycle	70% Load duty-cycle

Drawing dimension

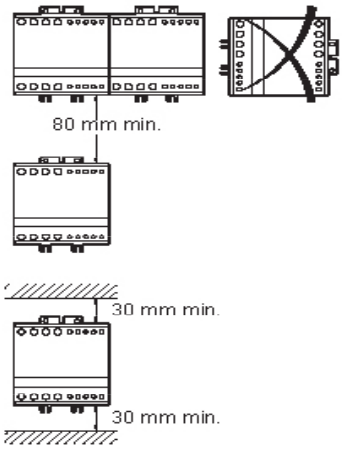




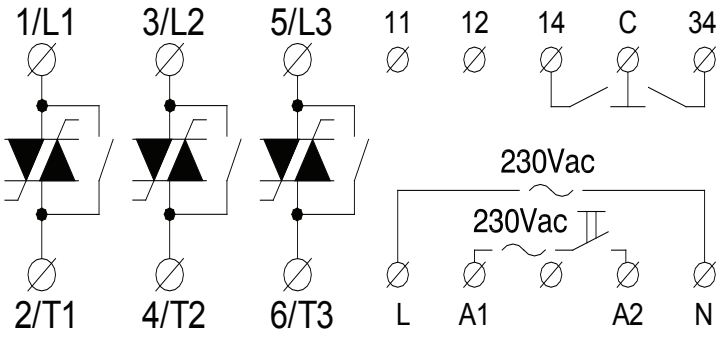
Housing material:

Self-extinguishing PPO UL94V1 halogen free
Color: black / gray
Built-in DIN rail mounting

Mounting instructions



Connections



Output load specifikation:

Overload current profile AC-53b
X-Tx: 5-5:30 (30A)

Connection:

L1; L2; L3:	Line voltage
T1; T2; T3:	Motor mounting
L - N :	Control voltage 230VAC
A1 - A2:	Start
14:	Status signal relay (potientalfri contacts)
34:	Fault signal relay (potientalfri contacts)
C:	Common terminal

SMC 33 DA 4850BPi

Environmental conditions:

Degree of protection	: IP 20
Storage temperature	: -20º to 80ºC
Operating temperature large	: -5º ... 40ºC
Pollution degree	: 3

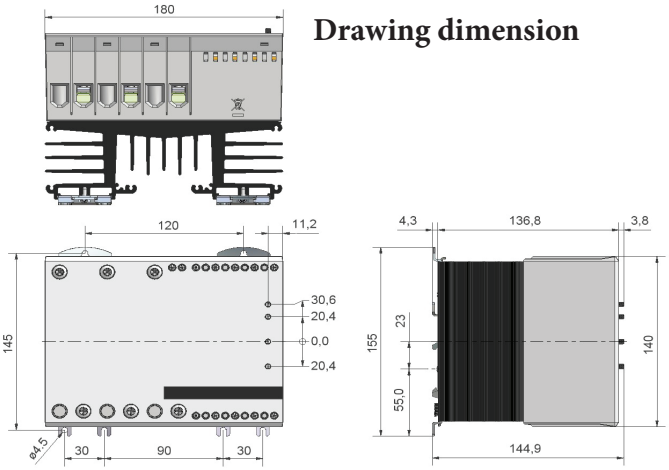
Features:

Soft starter with microprocessor control.
Line frequency detection.
Setting rotary switches, ramp up, ramp down, kick start and / or starting torque increase.
Fault, indication LED and signal relay.
Internal by-pass.
Power supply monitoring

Operation in ambient temperatures exceeding 40ºC is possible if the power dissipation is limited either by reducing the steady-state current.

40ºC	50ºC	60ºC
100% Load duty-cycle	80% Load duty-cycle	70% Load duty-cycle

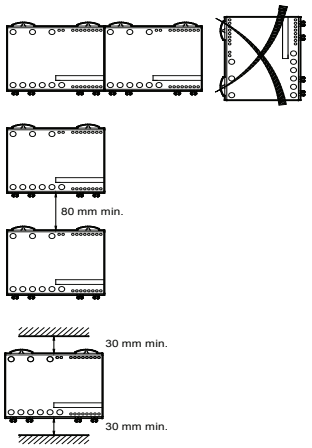
Drawing dimension



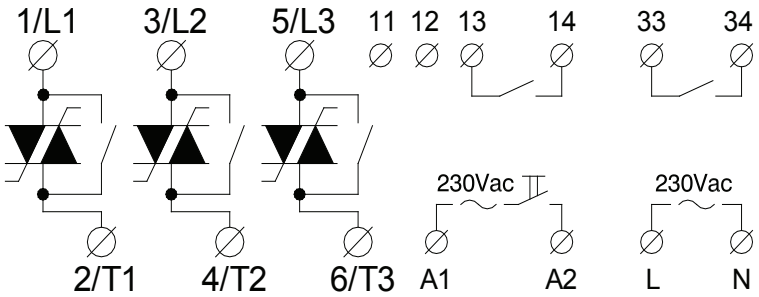
Housing material:

Self-extinguishing PPO UL94V1 halogen free
Color: black / gray
Built-in DIN rail mounting

Mounting instructions



Connections



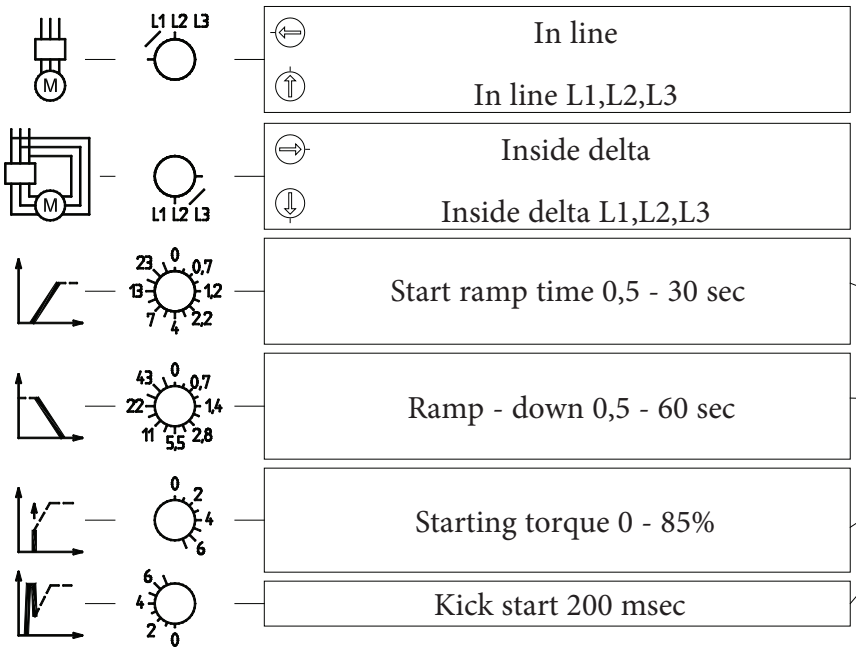
Output load specifikation:

Overload current profile AC-53b
X-Tx: 6-6:30 (50A)

Connection:

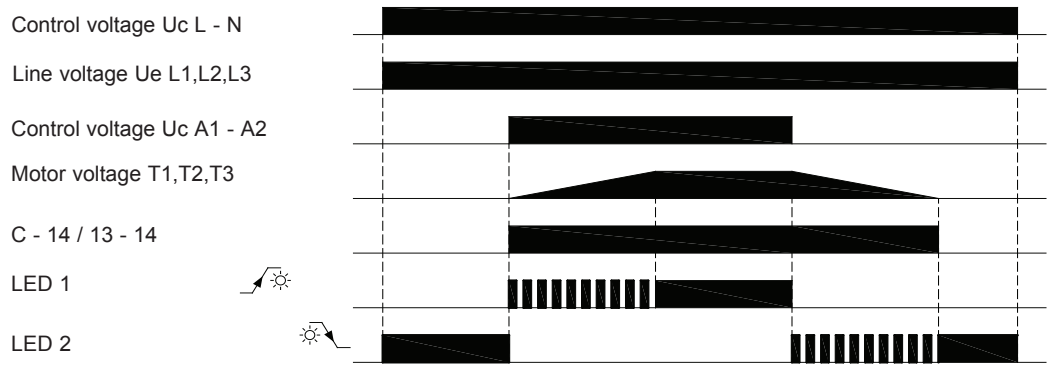
L1; L2; L3:	Line voltage
T1; T2; T3:	Motor mounting
L - N :	Control voltage 230VAC
A1 - A2:	Start
13-14:	Status signal relay (potientalfri contacts)
33-34:	Fault signal relay (potientalfri contacts)

Setting

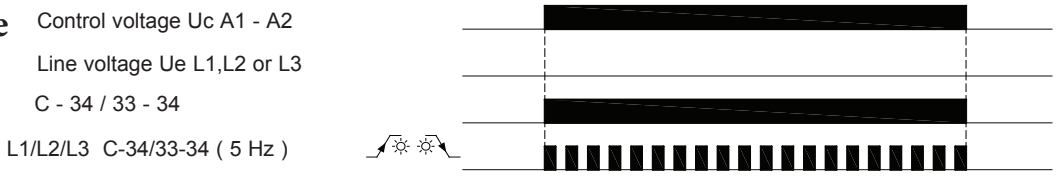


Functional

Operating

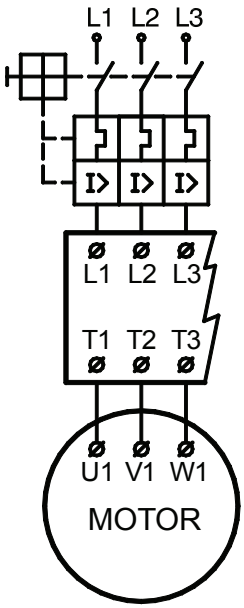


Operating voltage failure

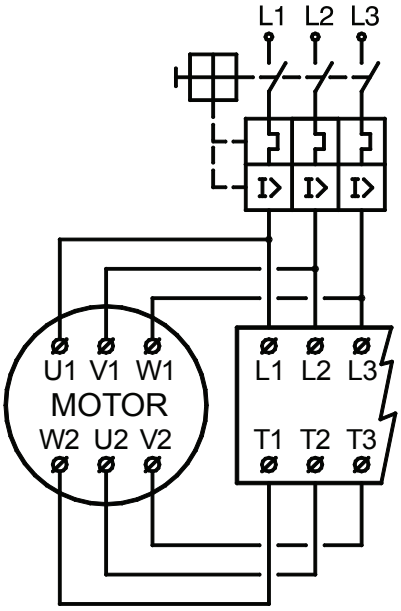


LED 1 + 2 Line voltage failure L1/L2/L3 C-34/33-34 (5 Hz)

In line



Inside delta



Standards

Restrictions of hazardous substances		RoHs Compliant
CE marking	LVD	EN 60947-4-2
	EMC: Immunity	EN 61000-6-4
	Emission	EN 61000-6-2
Electrostatic dicharge ESD		
	Immunity	EN 61000-4-2
		8 kV, Air discharge
		4 kV, Contact
Electrical fast transient/ Burst immunity		EN 61000-4-4
	Output	4 kV
	Input	4 kV
Electrical surge immunity		EN 61000-4-5
	Output, line to line	1 kV
	Output, line to earth	2 kV
	Input, line to line	1 kV
	Input, line to earth	2 kV
Radiated radio frequency Immunity		EN 61000-4-3 3V/m, 80-1000MHz
Conducted radio frequency Immunity Voltage dips & interference		EN 61000-4-6 3V/m, 0,15-80MHz IEC/EN 61000-4-11
Radio interference field emissions (radiated)		CISPR 11 IEC/EN 55011, Class B
Radio interference voltage emissions (conducted)		CISPR 11 IEC/EN 55011,Class B
Harmonics		IEC 61000-3-2

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