DATASHEET - S811+V85N3S



Soft starter, 850 A, 200 - 600 V AC, Us= 24 V DC, with control unit, Frame size V



Part no. S811+V85N3S Catalog No. 169008

Alternate Catalog

S811PLUSV85N3S

No.

EL-Nummer 4137492

(Norway)

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Delivery program			
			This item is only available for a limited time and will be replaced by the following item: 169009, S811+V85P3S
Description			With internal bypass contacts
Function			Soft starter for three-phase loads, with control unit
Mains supply voltage (50/60 Hz)	U_{LN}	V AC	200 - 600
Supply voltage	U _s		24 V DC
Control voltage	U _C		24 V DC
Assigned motor rating (Standard connection, In-Line)			
at 400 V, 50 Hz	P	kW	450
at 460 V, 60 Hz	P	HP	600
Rated operational current			
AC-53	I _e	Α	850
AC-53, In-Delta	le	Α	1471
Startup class			CLASS 10 (star-delta replacement) CLASS 20 (heavy starting duty 3 x I_e for 45 s) CLASS 30 (6 x I_e for 30 s)
Rated operational voltage	U _e		200 V 230 V 400 V 480 V 600 V
Connection to SmartWire-DT			no
Frame size			V
Ordering information			Terminal blocks for the terminals are required for frame sizes T, U, and V -> $\mbox{\sc Accessories}$

Technical data

General

donoral			
Standards			IEC/EN 60947-4-2 UL 508 CSA22.2-14-1995 GB14048
Approvals			CE
Approvals			UL CSA C-Tick CCC
Climatic proofing			Damp heat, constant, to IEC 60068-2-3 Damp heat, cyclic, to IEC 60068-2-10
Ambient temperature			
Operation	θ	°C	-30 - +50
Storage	θ	°C	-50 - +70
Altitude		m	0 - 2000 m, above that each 100 m 0.5% Derating
Mounting position			As required
Degree of protection			
Degree of Protection			IP20 (terminals IP00)
Integrated			Protection type IP40 can be achieved on all sides with covers SS-IP20-N.
Protection against direct contact			Finger- and back-of-hand proof
Overvoltage category/pollution degree			11/3
Shock resistance			15 g

		A			
P _{vs}	W	164			
	kg	41.4			
Weight kg 41.4 Main conducting paths					
U _e	V AC	200 - 600			
f _{LN}	Hz	50/60			
I _e	Α				
	Α	1471			
	Α	850			
Р	kW	450			
Р	kW	560			
Р	НР	200			
Р	НР	600			
P	НР	850			
Р	kW	200			
P	kW	750			
Р	kW	450			
	НР	500			
	НР	1100			
P	HP	1300			
		850 A: AC-53a: 4.0 - 32: 99 - 3			
		/			
		NZMN4-ME875			
	mm ²	2 × (120 - 240) 4 × (70 - 240) 6 × (120 - 240)			
	mm ²	2 x (120 - 240) 4 x (70 - 240) 6 x (120 - 240)			
	mm ²	2 x (120 - 240) 4 x (70 - 240) 6 x (120 - 240)			
	AWG	2 x (4 - 500 kcmil) 4 x (4 - 500 kcmil) 6 x (4 - 500 kcmil)			
	mm ²	1 x (2.5 - 4) 2 x (1.0 - 2.5)			
	mm ²	1 x (2.5 - 4) 2 x (1.0 - 2.5)			
	mm ²	1 x (2.5 - 4) 2 x (1.0 - 2.5)			
		42 x (12 - 14) 2 x (12 - 14)			
		0.4 0,6 x 3,5			
	IIIIII	ل, ک ۸ باری			
	V DC	24 V DC +10 %/- 10 %			
	mA				
	mA	150			
	mA	100			
	Ue fLN Ie Ie P P P P P	Reg Reg			

DC-operated		V DC	21.6 - 26.4
		V DC	21.0 - 20.4
Drop-out voltage	x U _s		
DC operated		V DC	
Drop-out voltage, DC-operated, max.		V DC	3
Pick-up time			
DC operated		ms	100
Drop-out time			
DC operated		ms	100
Regulator supply			
Voltage	U_s	٧	24 V DC +10 %/- 10 %
Current consumption	I _e	mA	1400
Current consumption at peak performance (close bypass) at 24 V DC	I _{Peak}	A/ms	10/150
Notes			External supply voltage
Analog inputs			
Number of current inputs			1
Number of current inputs			'
Current input		m A	4 - 20
		mA	T - 20
Relay outputs			2
Number			2
of which programmable			2
Voltage range		V AC	120 V AC/DC
AC-11 current range		Α	3 A, AC-11
Soft start function			
Ramp times			
Acceleration		S	
Ramp time, max.		S	180
Deceleration		S	0 - 60
Start voltage (= turn-off voltage)		%	
Start voltage, max.		%	85
Start pedestal		%	
Start voltage, max.		%	85
Kickstart			
Voltage		%	
Kickstart voltage, max.		%	100
Duration			
50 Hz		ms	
Kickstart Duration 50 Hz max.		ms	2000
60 Hz		ms	
Kickstart Duration 60 Hz max.		ms	2000
Fields of application			
Fields of application			Soft starting of three-phase asynchronous motors
3-phase motors			✓
Functions			
Fast switching (semiconductor contactor)			- (minimum ramp time 1s)
Soft start function			✓
Reversing starter			External solution required (reversing contactor)
Suppression of closing transients			/
Current limitation			/
Overload monitoring			/
Underload monitoring			✓
Fault memory		Faults	10
Suppression of DC components for motors			/
Potential isolation between power and control sections			<u>/</u>
Communication Interfaces			Modbus RTU
Sommanious interrupcio			mououo III O

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	850
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	164
Static heat dissipation, non-current-dependent	P _{vs}	W	164
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-30
Operating ambient temperature max.		°C	50
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switch gear must be observed. $\label{eq:specification}$
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Soft starter (EC000640)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Load breakout, motor breakout / Semiconductor motor controller or soft starter (ect@ss10.0.1-27-37-09-07 (AC0300011))

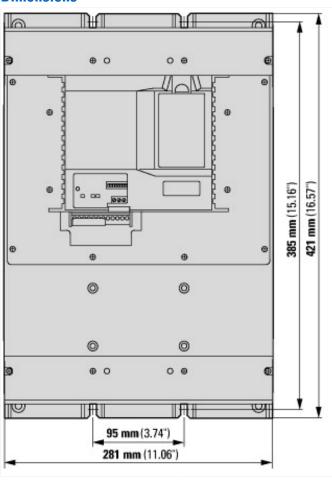
(ecl@ss10.0.1-27-37-09-07 [ACO300011])	3,1	
Rated operation current le at 40 °C Tu	А	850
Rated operating voltage Ue	V	200 - 600
Rated power three-phase motor, inline, at 230 V	kW	200
Rated power three-phase motor, inline, at 400 V	kW	450
Rated power three-phase motor, inside delta, at 230 V	kW	200
Rated power three-phase motor, inside delta, at 400 V	kW	750
Function		Single direction
Internal bypass		Yes
With display		Yes
Torque control		No
Rated surrounding temperature without derating	°C	50
Rated control supply voltage Us at AC 50HZ	V	0 - 0
Rated control supply voltage Us at AC 60HZ	V	0 - 0
Rated control supply voltage Us at DC	V	24 - 24

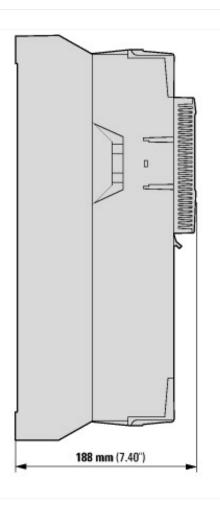
Voltage type for actuating	DC
Integrated motor overload protection	Yes
Release class	Adjustable
Degree of protection (IP)	IP00
Degree of protection (NEMA)	Other

Approvals

Product Standards	IEC/EN	60947-4-2; UL 508; CSA C22.2 No. 14; CE marking
UL File No.	E20257	1
UL Category Control No.	NMFT	
CSA File No.	LR 353	
CSA Class No.	3211-00	6
North America Certification	UL liste	ed, CSA certified
Suitable for	Branch	n Circuits, not as BCPD
Max. Voltage Rating	600 Va	С
Degree of Protection	IP20 w	ith kit

Dimensions





Additional product information (links)

Documentation http://www.eaton.eu/Europe/Electrical/ProductsServices/AutomationControl/SwitchingProtectingDrivingMotors/SoftStarters/S811/index.htm#tabs-4