Eaton 168987

Eaton S811 Soft starter, 240 A, 200 - 600 V AC, Us= 24 V DC, with control unit, Frame size T

PRODUCT NAME	Eaton S811 Soft starter
CATALOG NUMBER	168987
PRODUCT LENGTH/DEPTH	164.4 mm
PRODUCT HEIGHT	322.9 mm
PRODUCT WIDTH	194.4 mm
PRODUCT WEIGHT	18.6 kg
COMPLIANCES	CE Marked
CERTIFICATIONS	UL Recognized CSA file No. 3211-06 UL Listed IEC 60947-4-2 EN 60947-4-2 CSA Certified for Elevator Duty UL File No.: E202571 CSA Class No.: 3211-06, 2411-01 CSA File No.: LR 353 CSA-C22.2 No. 14 UL GB14048 CSA22.2-14-1995 CSA UL Category Control No.: NMFT CE UL 508 CCC IEC/EN 60947-4-2 C-Tick

Powering Business Worldwide

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USED WITH	Three-phase motors
AMPERAGE RATING	240A
DISPLAY MATERIAL	LCD
AC CURRENT - MAX	240 Vac
DC CURRENT - MAX	120 Vdc
NUMBER OF POLES	Three-pole
TYPE	Soft starter for three-phase loads, with control unit
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 switchgear must be observed.
10.13 MECHANICAL FUNCTION	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
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 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. 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	Does not apply, since the

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□□□□□□□	Eaton Specification Sheet - S811+T24N3S
□□□□	eaton-softstarter-s811-ds7-brochure-br039001en-en-us.pdf
□□	eaton-semiconductor-contactors-s811-soft-starter-dimensions-003.eps eaton-semiconductor-contactors-s811-soft-starter-3d-drawing-003.eps

IMPACT	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.
10.9.2 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.
FITTED WITH:	Display Internal bypass Internal bypass contacts Motor overload protection
FREQUENCY RATING	47-63 Hz
POLLUTION DEGREE	3
CLASS	Adjustable
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-3 Damp heat, cyclic, to IEC 60068-2-30
CONNECTION TO SMARTWIRE-DT	No
POWER SUPPLY	24 V
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	4000 V
FRAME SIZE	T
ALTITUDE	Max. 2000 m Above 2000 m with 0.5 % derating per 100 m
NUMBER OF INPUTS	1 (current input)
AMBIENT OPERATING	50 °C

TEMPERATURE - MAX	
AMBIENT OPERATING TEMPERATURE - MIN	-30 °C
AMBIENT STORAGE TEMPERATURE - MAX	70 °C
AMBIENT STORAGE TEMPERATURE - MIN	-50 °C
ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE	75 HP
ASSIGNED MOTOR POWER AT 220/230 V, 60 HZ, 3-PHASE	75 HP
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	200 HP
ASSIGNED MOTOR POWER AT 600 V, 60 HZ, 3-PHASE	200 HP
ASSIGNED MOTOR POWER IN-DELTA AT 220/230 V, 60 HZ	150 HP
ASSIGNED MOTOR POWER IN-DELTA AT 460/480 V, 60 HZ	350 HP
ASSIGNED MOTOR POWER IN-DELTA AT 575/600 V, 60 HZ	450 HP
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	25 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0 W
MAINS VOLTAGE - MAX	600 V
MAINS VOLTAGE - MIN	200 V
OPERATING TEMPERATURE - MAX	50 °C
COMMUNICATION	Modbus RTU
NEMA RATING	NEMA 0
OUTPUT VOLTAGE	120 V AC/DC (relay outputs)
NUMBER OF OUTPUTS	2 Relay Outputs (programmable)
SCREWDRIVER SIZE	4 mm Hexagon socket-head screw, Terminal screw, Main cables 0.6 x 3.5 mm, Terminal screws, Control circuit

	cables
VOLTAGE TYPE	DC
RATED OPERATIONAL VOLTAGE (UE) - MIN	200 V
RATED POWER THREE-PHASE MOTOR, INLINE, AT 230 V	75 kW
RATED POWER THREE-PHASE MOTOR, INLINE, AT 400 V	132 kW
RATED POWER THREE-PHASE MOTOR, INSIDE DELTA, AT 230 V	132 kW
RATED POWER THREE-PHASE MOTOR, INSIDE DELTA, AT 400 V	200 kW
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	25 W
VOLTAGE RATING - MAX	600 V
APPLICATION	• 3-phase motors: Yes • Soft starting of three-phase asynchronous motors
PROTECTION	Finger and back-of-hand proof, Protection against direct contact
SIZE	NEMA 0
MOUNTING POSITION	As required
INPUT CURRENT	4 - 20 mA (Analog inputs)
OPERATING VOLTAGE	200-600 V
WIRE SIZE	#4 AWG-500 kcmil
DROP-OUT VOLTAGE	0 - 3 V, DC operated
OVERVOLTAGE CATEGORY	II
MODULE INTERFACE	Digital interface module
DEGREE OF PROTECTION	IP20 IP20 can be achieved on all sides by using optional terminal covers SS-IP20-TU IP00 Terminals: IP00
CURRENT CONSUMPTION	1000 mA, Control circuit, Regulator supply 10 A/150 ms, Control circuit, Regulator supply at

	peak performance (close bypass) at 24 V DC 100 mA, Control circuit, Digital inputs, External 24 V (no-load) 150 mA, Control circuit, Digital inputs, External 24 V
FUNCTIONS	Soft start function Current limitation Single direction Underload monitoring Potential isolation between power and control sections Suppression of closing transients Suppression of DC components for motors Overload monitoring Min. ramp time 1 s - fast switching (semiconductor contactor)
DELAY TIME	0 - 60 s, Soft start function, Ramp times
OVERLOAD CYCLE	AC-53a: 4.0 - 32: 99 - 3
DROP-OUT TIME	100 ms, DC operated
PICK-UP VOLTAGE	21.6 - 26.4 V DC
RADIO INTERFERENCE CLASS	Class A (EN 55011)
FAULT MEMORY	10 Faults
PICK-UP TIME	100 ms at DC
INTERFACES	Modbus RTU (built-in)
KICKSTART	Max. 2000 ms (Kickstart Duration) 100% (Kickstart voltage)
RATED CONTROL VOLTAGE (UC)	24 V DC 24 V DC (-10 %/+10 %)
SUPPLY FREQUENCY	50/60 Hz, fLN, Main circuit
TERMINAL CAPACITY (STRANDED)	2 x (1 - 2.5) mm², Control circuit cables 2 x (25 - 240) mm², Main cables 1 x (2.5 - 4) mm², Control circuit cables 1 x (70 - 240) mm², Main cables
OPERATING TEMPERATURE - MIN	-30 °C
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	0 V
RATED CONTROL SUPPLY	0 V

VOLTAGE (US) AT AC, 50 HZ - MIN	
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	24 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	24 V
RATED INSULATION VOLTAGE (UI)	660 V
RATED OPERATIONAL CURRENT (IE) AT AC-11	3 A
RATED OPERATIONAL CURRENT (IE) AT AC-53	240 A
RATED OPERATIONAL CURRENT (IE) AT AC-53, IN-DELTA	415 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	240 A
RATED OPERATIONAL POWER AT 220/230 V, 50 HZ	75 kW
RATED OPERATIONAL POWER AT 400 V, 50 HZ	132 kW
RATED OPERATIONAL POWER AT 500 V, 50 HZ	160 kW
RATED OPERATIONAL POWER IN-DELTA AT 220/230 V, 50 HZ	132 kW
RATED OPERATIONAL POWER IN-DELTA AT 400 V, 50 HZ	200 kW
RATED OPERATIONAL POWER IN-DELTA AT 500 V, 50 HZ	250 kW
RATED OPERATIONAL VOLTAGE (UE) - MAX	600 V
RAMP/RUN-UP TIME	180 s
SHOCK RESISTANCE	15 g, Mechanical
SUITABLE FOR	Branch circuits, not as BCPD, (UL/CSA)
TIGHTENING TORQUE	25.5 Nm (≤ 150 mm^2) 0.4 Nm, Screw terminals, Control circuit cables

	28.3 Nm (> 150 mm²)
SHORT-CIRCUIT PROTECTION RATING	NZMN3-S250, Type “1” coordination, Main conducting paths
START VOLTAGE	Max. 85 %, Soft start function, Start voltage = turn-off voltage
STARTUP CLASS	CLASS 20 (heavy starting duty 3 x I_e for 45 s) CLASS 30 (6 x I_e for 30 s) CLASS 10 (star-delta replacement)
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (2.5 - 4) mm², Control circuit cables 2 x (1 - 2.5) mm², Control circuit cables 1 x (70 - 240) mm², Main cables 2 x (25 - 240) mm², Main cables
TERMINAL CAPACITY (SOLID)	1 x (70 - 240) mm², Main cables 1 x (2.5 - 4) mm², Control circuit cables 2 x (1 - 2.5) mm², Control circuit cables 2 x (25 - 240) mm², Main cables
TERMINAL CAPACITY (SOLID/STRANDED AWG)	1 x (4 - 500 kcmil), Main cables 2 x (14 - 12), Control circuit cables 2 x (4 - 500 kcmil), Main cables 1 x (14 - 12), Control circuit cables

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