Eaton 171743

Eaton DS7 Soft starter, 12 A, 200 - 480 V AC, 24 V AC/DC, Frame size FS1, Ambient temperature Operation -40 - +40 °C

PRODUCT NAME	Eaton DS7 Soft starter
CATALOG NUMBER	171743
PRODUCT LENGTH/DEPTH	94 mm
PRODUCT HEIGHT	130 mm
PRODUCT WIDTH	45 mm
PRODUCT WEIGHT	0.35 kg
CERTIFICATIONS	UL File No.: E251034 CE C-Tick CSA22.2-14 CSA-C22.2 No 0-M91 UL 508 CSA File No.: 2511305 CSA Class No.: 321106 GB 14048.6 UkrSEPRO IEC/EN 60947-4-2 CSA UL CSA-C22.2 No 14-05

Powering Business Worldwide

TYPE	Soft starter for three-phase loads
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 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	Does not apply, since the

	eaton-softstarter-s811-ds7-brochure-br039001en-en-us.pdf
	eaton-ds7-soft-starter-mn03901001z-en-us.pdf
	eaton-semiconductor-contactors-swd-ds7-soft-starter-dimensions-003.eps eaton-semiconductor-contactors-softstarter-ds7-3d-drawing.eps

PROTECTION OF ASSEMBLIES	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:	Internal bypass contacts Internal bypass
POLLUTION DEGREE	2
CLASS	Other
CLIMATIC PROOFING	Cold to EN 60068-2-1 Damp heat, constant, to IEC 60068-2-3 Damp heat, cyclic, to IEC 60068-2-30
CONNECTION TO SMARTWIRE-DT	No
FRAME SIZE	FS1
ALTITUDE	Max. 2000 m Above 1000 m with 1 % derating per 100 m
AMBIENT OPERATING TEMPERATURE - MAX	40 °C
AMBIENT OPERATING TEMPERATURE - MIN	-40 °C
AMBIENT STORAGE TEMPERATURE - MAX	60 °C
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
ASSIGNED MOTOR POWER AT 200/208 V, 60	3 HP

HZ, 3-PHASE	
ASSIGNED MOTOR POWER AT 220/230 V, 60 HZ, 3-PHASE	3 HP
ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE	10 HP
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0.6 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0 W
MAINS VOLTAGE - MAX	480 V
MAINS VOLTAGE - MIN	200 V
OUTPUT VOLTAGE	24 V AC/DC
NUMBER OF OUTPUTS	1 Relay Output (TOR)
SCREWDRIVER SIZE	0.6 x 5.5 mm/1 x 6 mm, Terminal screws, Control circuit cables PZ2, 1 x 6 mm, Terminal screw, Standard screwdriver
VOLTAGE TYPE	AC/DC
RATED OPERATIONAL VOLTAGE (UE) - MIN	230 V
RATED POWER THREE-PHASE MOTOR, INLINE, AT 230 V	3 kW
RATED POWER THREE-PHASE MOTOR, INLINE, AT 400 V	5.5 kW
RATED POWER THREE-PHASE MOTOR, INSIDE DELTA, AT 230 V	0 kW
RATED POWER THREE-PHASE MOTOR, INSIDE DELTA, AT 400 V	0 kW
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0.6 W
VOLTAGE RATING - MAX	480 V
APPLICATION	• 1-phase motors: No

	• 3-phase motors: Yes • Soft starting of three-phase asynchronous motors
PROTECTION	Finger and back-of-hand proof, Protection against direct contact
MOUNTING POSITION	Vertical
DROP-OUT VOLTAGE	0 - 3 V, DC operated AC operated: 0 - 3 V, AC operated
OVERVOLTAGE CATEGORY	II
DEGREE OF PROTECTION	IP20 NEMA 1
CURRENT CONSUMPTION	50 mA, Control circuit, Regulator supply 1.6 mA, Control circuit, Digital inputs, External 24 V
FUNCTIONS	Suppression of closing transients Min. ramp time 1 s - fast switching (semiconductor contactor) Suppression of DC components for motors Soft start function Potential isolation between power and control sections Single direction
DELAY TIME	0 - 30 s, Soft start function, Ramp times
OVERLOAD CYCLE	AC-53a: 3 - 5: 75 - 10
DROP-OUT TIME	350 ms, Control circuit, Digital Inputs, DC operated
PICK-UP VOLTAGE	17.3 - 27 V DC 17.3 - 27 V AC
RADIO INTERFERENCE CLASS	Class B (EN 55011)
PICK-UP TIME	250 ms at DC 250 ms at AC
RATED CONTROL VOLTAGE (UC)	24 V AC 24 V DC 24 V DC (-15 %/+10 %)

SUPPLY FREQUENCY	50/60 Hz, fLN, Main circuit
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	24 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	24 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	24 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	24 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	24 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	24 V
RATED OPERATIONAL CURRENT (IE) AT AC-11	1 A
RATED OPERATIONAL CURRENT (IE) AT AC-53	12 A
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	12 A
RATED OPERATIONAL POWER AT 220/230 V, 50 HZ	3 kW
RATED OPERATIONAL POWER AT 400 V, 50 HZ	5.5 kW
RATED OPERATIONAL VOLTAGE (UE) - MAX	480 V
VIBRATION RESISTANCE	2M2 to EN 60721-3-2
RAMP/RUN-UP TIME	30 s
SHOCK RESISTANCE	8 g, 11 ms, Mechanical
SUITABLE FOR	Branch circuits, (UL/CSA)
TIGHTENING TORQUE	1.2 Nm 1.2 Nm, Screw terminals, Control circuit cables
SHORT-CIRCUIT PROTECTION RATING	3 x 170M1362, Type „2“ coordination (additional with the fuses for coordination type „1“), Main conducting paths PKM0-12 (+ CL-PKZ0), Type “1” coordination, Main conducting paths
START VOLTAGE	Min. 30 %, Soft start

	function, Start voltage = turn-off voltage Max. 100 %, Soft start function, Start voltage = turn-off voltage
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.75 - 2.5) mm^2, Main cables 2 x (0.75 - 2.5) mm^2, Control circuit cables 1 x (0.75 - 2.5) mm^2, Control circuit cables 2 x (0.75 - 2.5) mm^2, Main cables
TERMINAL CAPACITY (SOLID)	2 x (0.75 - 2.5) mm^2, Control circuit cables 1 x (0.75 - 4) mm^2, Main cables 2 x (0.75 - 2.5) mm^2, Main cables 1 x (0.75 - 4) mm^2, Control circuit cables
TERMINAL CAPACITY (SOLID/STRANDED AWG)	18 - 10, Main cables 18 - 10, Control circuit cables

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
:

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