

Soft starter, 32 A, 200 - 480 V AC, 24 V DC, Frame size: FS2, Communication
Interfaces: SmartWire-DT



Part no. **DS7-34DSX032N0-D**
134950
EL Number **4137338**
(Norway)

Product name	Eaton DS7 Soft starter
Part no.	DS7-34DSX032N0-D
EAN	4015081317653
Product Length/Depth	126 millimetre
Product height	150 millimetre
Product width	45 millimetre
Product weight	0.4 kilogram
Certifications	UL UL 508 GB 14048.6 CSA-C22.2 No 0-M91 CE CSA CSA-C22.2 No 14-05 IEC/EN 60947-4-2 UkrSEPRO CSA22.2-14 C-Tick
Product Tradename	DS7
Product Type	Soft starter
Product Sub Type	None
Catalog Notes	Ambient Operating Temperature up to 60 at 2% derating per Kelvin temperature rise External Reversing starter solution required Regulator supply: External supply voltage
Fault memory	8 Faults
Fitted with:	Internal bypass Internal bypass contacts
Functions	Current limitation, with PKE Min. ramp time 1 s - fast switching (semiconductor contactor) Suppression of closing transients Soft start function Potential isolation between power and control sections Single direction Suppression of DC components for motors
Interfaces	SmartWire-DT (built-in)
Class	Other
Connection to SmartWire-DT	Yes
Degree of protection	NEMA 1 IP20
Frame size	FS2
Mains voltage - min	200 V
Mains voltage - max	480 V
Overvoltage category	II
Pollution degree	2
Radio interference class	Class B (EN 55011)
Suitable for	Branch circuits, (UL/CSA)
Type	Soft starter for three-phase loads
Voltage type	DC
Mounting position	Vertical
Shock resistance	8 g, 11 ms, Mechanical
Vibration resistance	2M2 to EN 60721-3-2

Altitude		Above 1000 m with 1 % derating per 100 m Max. 2000 m
Ambient operating temperature - min		-5 °C
Ambient operating temperature - max		40 °C
Ambient storage temperature - min		-25 °C
Ambient storage temperature - max		60 °C
Climatic proofing		Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-3
Overload cycle		AC-53a: 3 - 5: 75 - 10
Rated operational current (Ie) at AC-53		32 A
Rated operational voltage (Ue) - min		230 V
Rated operational voltage (Ue) - max		480 V
Short-circuit protection rating		3 x 170M1366, Type „2“ coordination (additional with the fuses for coordination type „1“), Main conducting paths PKM0-32 (+ CL-PKZ0), Type “1” coordination, Main conducting paths
Supply frequency		50/60 Hz, fLN, Main circuit
Voltage rating - max		480 V
Assigned motor power at 200/208 V, 60 Hz, 3-phase		10 HP
Assigned motor power at 220/230 V, 60 Hz, 3-phase		10 HP
Assigned motor power at 460/480 V, 60 Hz, 3-phase		25 HP
Rated operational power at 220/230 V, 50 Hz		7.5 kW
Rated operational power at 400 V, 50 Hz		15 kW
Terminal capacity (flexible with ferrule)		2 x (0.5 - 0.75) mm ² , Control circuit cables 1 x (0.5 - 1.5) mm ² , Control circuit cables 1 x (0.75 - 16) mm ² , Main cables 2 x (0.75 - 10) mm ² , Main cables
Terminal capacity (solid)		2 x (0.5 - 1.0) mm ² , Control circuit cables 1 x (0.75 - 16) mm ² , Main cables 2 x (0.75 - 10) mm ² , Main cables 1 x (0.5 - 2.5) mm ² , Control circuit cables
Terminal capacity (solid/stranded AWG)		18 - 6, Main cables 18 - 14, Control circuit cables
Terminal capacity (stranded)		1 x 16 mm ² , Main cables
Screwdriver size		PZ2, 1 x 6 mm, Terminal screw, Standard screwdriver 0.6 x 5.5 mm/1 x 6 mm, Terminal screws, Control circuit cables
Tightening torque		3.2 Nm 1.2 Nm, Screw terminals, Control circuit cables
Current consumption		50 mA, Control circuit, Regulator supply 1.6 mA, Control circuit, Digital inputs, External 24 V
Drop-out time		350 ms, Control circuit, Digital Inputs, DC operated
Drop-out voltage		0 - 3 V, DC operated
Pick-up time		250 ms at DC
Pick-up voltage		17.3 - 27 V DC
Rated control supply voltage (Us) at AC, 50 Hz - min		0 V
Rated control supply voltage (Us) at AC, 50 Hz - max		0 V
Rated control supply voltage (Us) at AC, 60 Hz - min		0 V
Rated control supply voltage (Us) at AC, 60 Hz - max		0 V
Rated control supply voltage (Us) at DC - min		24 V
Rated control supply voltage (Us) at DC - max		24 V
Number of outputs		2 Relay Outputs (TOR, Ready)
Output voltage		250 V AC (relay outputs)
Protection		Finger and back-of-hand proof, Protection against direct contact
Rated control voltage (Uc)		24 V DC 24 V DC (-15 %/+10 %) or via SmartWire-DT
Rated operational current (Ie) at AC-11		1 A

Application			1-phase motors: No 3-phase motors: Yes Soft starting of three-phase asynchronous motors
Current limitation			(0 - 8) x I _e , Soft start function
Delay time			0 - 30 s, Soft start function, Ramp times
Ramp/run-up time			1 - 30 s
Start voltage			Min. 30 %, Soft start function, Start voltage = turn-off voltage Max. 100 %, Soft start function, Start voltage = turn-off voltage
Equipment heat dissipation, current-dependent P _{vid}			1.5 W
Heat dissipation capacity P _{diss}			0 W
Heat dissipation per pole, current-dependent P _{vid}			0 W
Rated operational current for specified heat dissipation (I _n)			32 A
Static heat dissipation, non-current-dependent P _{vs}			1.5 W
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 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.
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.

Technical data ETIM 8.0

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 (ec1@ss10.0.1-27-37-09-07 [AC0300011])		
Rated operation current I _e at 40 °C T _u	A	32
Rated operating voltage U _e	V	230 - 480
Rated power three-phase motor, inline, at 230 V	kW	7.5
Rated power three-phase motor, inline, at 400 V	kW	15
Rated power three-phase motor, inside delta, at 230 V	kW	0
Rated power three-phase motor, inside delta, at 400 V	kW	0
Function		Single direction
Internal bypass		Yes
With display		No
Torque control		No
Rated surrounding temperature without derating	°C	40
Rated control supply voltage U _s at AC 50HZ	V	0 - 0
Rated control supply voltage U _s 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		No
Release class		Other
Degree of protection (IP)		IP20
Degree of protection (NEMA)		1