



DS7 soft starter, 24 V AC/DC, 24 A



Powering Business Worldwide™

Part no. DS7-340SX024N0-N
Article no. 134913

Catalog No. DS7-340SX024N0-N

Delivery programme

Description			With internal bypass contacts
Function			Soft starters for three-phase loads
Mains supply voltage (50/60 Hz)	U_{LN}	V AC	200 - 480
Supply voltage	U_s		24 V AC/DC
Control voltage	U_C		24 V AC 24 V DC
Assigned motor rating			
at 400 V, 50 Hz	P	kW	11
at 480 V, 60 Hz	P	HP	15
Rated operational current			
Device (AC-53)	I_e	A	24
Startup class			CLASS 10 (star-delta replacement) CLASS 20 (heavy starting duty 3 x I_e for 45 s)
Rated operational voltage	U_e		200 V 230 V 400 V 480 V
Connection to SmartWire-DT			no

Approvals

Product Standards

UL File No.
 CSA File No.
 CSA Class No.
 Specially designed for North America
 Suitable for
 Current Limiting Circuit-Breaker
 Max. Voltage Rating
 Degree of Protection

IEC/EN 60947-4-2; GB 14048.6; UL 508; CSA-C22.2 No 0-M91; CSA-C22.2 No 14-05 CE marking
 E251034
 2511305
 321106
 No
 Branch circuits
 No
 480 V
 IP20; UL/CSA Type 1

General

Standards			IEC/EN 60947-4-2 UL 508 CSA22.2-14
Approvals			CE
Approvals			UL CSA C-Tick UkrSEPRO
Climatic proofing			Damp heat, constant, to IEC 60068-2-3 Damp heat, cyclic, to IEC 60068-2-10
Ambient temperature		°C	
Operation	θ	°C	-5 - +40 up to 60 at 2% derating per Kelvin temperature rise
Storage	θ	°C	-25 - +60
Altitude		m	0 - 1000 m, above that 1 % derating per 100 m , up to 2000 m
Mounting position			Vertical
Degree of protection			
Protection type			IP20
Protection against direct contact			Finger- and back-of-hand proof
Overvoltage category/pollution degree			II/2

Shock resistance			8 g/11 ms
Vibration resistance to EN 60721-3-2			2M2
Radio interference level (IEC/EN 55011)			B
Heat dissipation		W	1.1
Weight		kg	0.4
Main conducting paths			
Rated operating voltage	U_e	V AC	200 - 480
Supply frequency	f_{LN}	Hz	50/60
Rated operational current	I_e	A	
Device (AC-53)	I_e	A	24
Assigned motor rating (Standard connection, In-Line)			
at 230 V, 50 Hz	P	kW	5.5
at 400 V, 50 Hz	P	kW	11
at 200 V, 60 Hz	P	HP	7.5
at 230 V, 60 Hz	P	HP	7.5
at 480 V, 60 Hz	P	HP	15
Overload cycle to IEC/EN 60947-4-2			
AC-53a			24 A: AC-53a: 3 - 5: 75 - 10
Internal bypass contacts			✓
Short-circuit rating			
Type "1" coordination			
Type "1" coordination			PKM0-25 (+ CL-PKZ0)
Type „2" coordination short-circuit rating (additional with the fuses for coordination type „1")			3 x 170M1365
Fuse base (number x part no.)			3 x 170H1007
Terminal capacities			
Cable lengths			
Solid		mm ²	1 x (0.75 - 16) 2 x (0.75 - 10)
Flexible with ferrule		mm ²	1 x (0.75 - 16) 2 x (0.75 - 10)
Stranded		mm ²	1 x 16
Solid or stranded		AWG	18 - 6
Tightening torque		Nm	3.2
Screwdriver (PZ: Pozidriv)		mm	PZ2; 1 x 6 mm
Control cables			
Solid		mm ²	1 x (0.5 - 2.5) 2 x (0.5 - 1.0)
Flexible with ferrule		mm ²	1 x (0.5 - 1.5) 2 x (0.5 - 0.75)
Stranded		mm ²	1 x (0.5 - 1.5) 2 x (0.5 - 1.0)
Solid or stranded		AWG	1 x (21 - 14) 2 x (21 - 18)
Tightening torque		Nm	1.2
Screwdriver		mm	0,6 x 3,5
Control circuit			
Digital inputs			
Control voltage			
DC-operated		V DC	24 V DC +10 %/- 15 %
AC operated		V AC	24 V AC +10 %/- 15 %
Current consumption 24 V		mA	
External 24 V		mA	1.6
Pick-up voltage		x U_s	

DC-operated		V DC	17.3 - 27
AC operated		V AC	17.3 - 27
Drop-out voltage	$x U_s$		
DC operated		V DC	0 - 3
AC operated		V AC	0 - 3
Pick-up time			
DC operated		ms	250
AC operated		ms	250
Drop-out time			
DC operated		ms	350
Regulator supply			
Voltage	U_s	V	24 V AC/DC +10 %/- 15 %
Current consumption	I_e	mA	50
Notes			External supply voltage
Relay outputs			
Number			2 (TOR, Ready)
Voltage range		V AC	250
AC-11 current range		A	1 A, AC-11

Soft start function

Ramp times			
Acceleration		s	1 - 30
Deceleration		s	0 - 30
Start voltage (= turn-off voltage)		%	30 100
Start pedestal		%	30 - 100
Fields of application			
Fields of application			Soft starting of three-phase asynchronous motors
1-phase motors			●
3-phase motors			✓

Functions

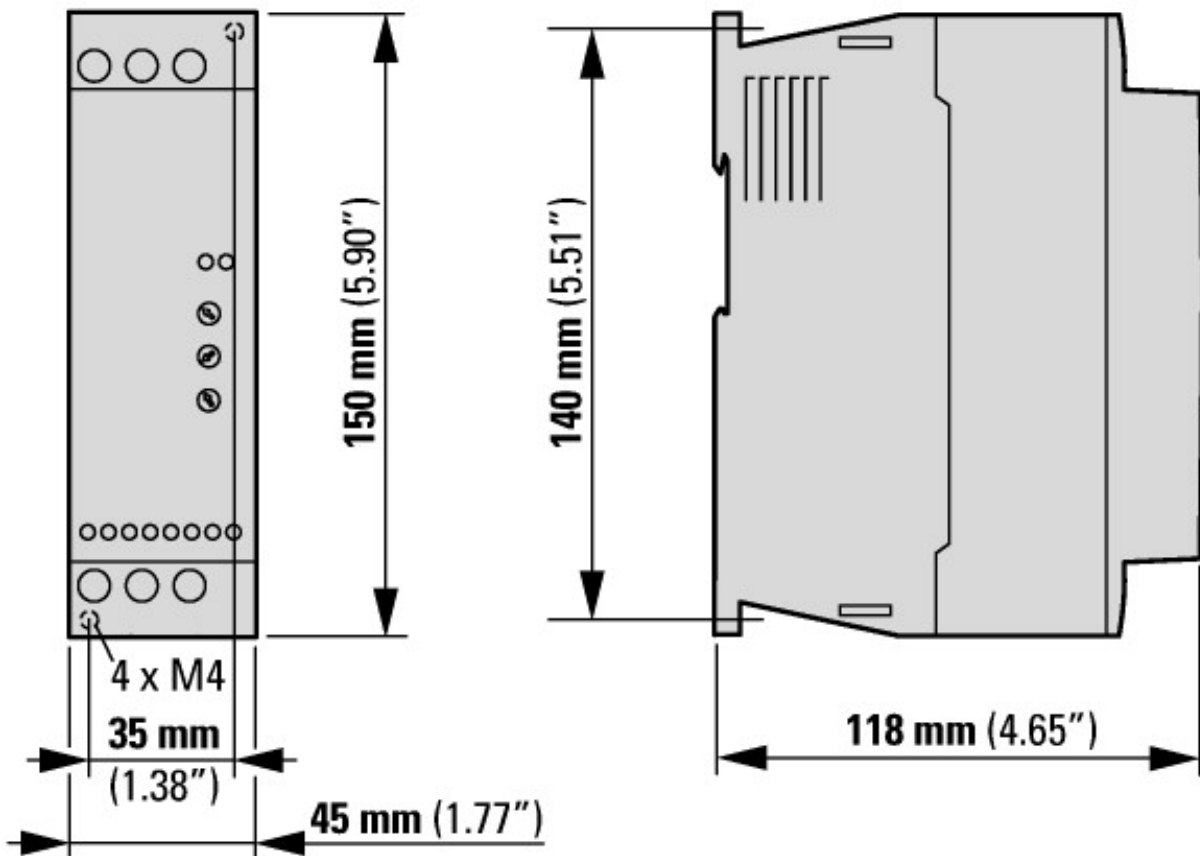
Fast switching (semiconductor contactor)			- (minimum ramp time 1s)
Soft start function			✓
Reversing starter			External solution required
Suppression of closing transients			✓
Suppression of DC components for motors			✓
Potential isolation between power and control sections			✓

Notes

Rated impulse withstand voltage:

- 1.2 μ s/50 μ s (rise time/fall time of the pulse to IEC/EN 60947-2 or -3)
- Applies for control circuit/power section/enclosure

Dimensions



Additional product information (links)

IL03902004Z Instructions for DS7 Soft Starter

IL03902004Z Instructions for DS7 Soft Starter

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03902004Z2012_07.pdf

MN03901001Z-EN Manual DS7 Soft Starter

MN03901001Z-DE Handbuch Softstarter DS7 - Deutsch

ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN03901001Z_DE.pdf

MN03901001Z-EN Manual DS7 Soft Starter - English

ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN03901001Z_EN.pdf

CA04020001Z-EN Product range catalog: Efficient Engineering for starting and controlling motors.

<http://www.eaton.eu/DE/Europe/Electrical/CustomerSupport/Catalogues/index.htm>