Soft starter, 3p, 41A, 200-480VAC, us=24VAC/DC

Part no. DS7-340SX041N0-N
Article no. 134916

Catalog No. DS7-340SX041N0-N

Powering Business Worldwide™

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 (Standard connection, In-Line)			
at 400 V, 50 Hz	P	kW	22
at 480 V, 60 Hz	P	HP	30
Rated operational current			
Device (AC-53)	I_e	A	41
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	IEC/EN 60947-4-2; GB 14048.6; UL 508; CSA-C22.2 No 0-M91; CSA-C22.2 No 14-05 CE marking
UL File No.	E251034
CSA File No.	2511305
CSA Class No.	321106
Specially designed for North America	No
Suitable for	Branch circuits
Current Limiting Circuit-Breaker	No
Max. Voltage Rating	480 V
Degree of Protection	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 (terminals IP00)
Integrated			Protection type IP40 can be achieved on all sides with covers from the NZM range.
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	7
Weight		kg	1.8

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 41
Assigned motor rating (Standard connection, In-Line)		
at 230 V, 50 Hz	P	kW 11
at 400 V, 50 Hz	P	kW 22
at 200 V, 60 Hz	P	HP 10
at 230 V, 60 Hz	P	HP 15
at 480 V, 60 Hz	P	HP 30
Overload cycle to IEC/EN 60947-4-2		
AC-53a		41 A: AC-53a: 3 - 5: 75 - 10
Internal bypass contacts		✓
Short-circuit rating		
Type “1” coordination		NZMN1-M50/PKZM4-49
Type „2” coordination (additional with the fuses for coordination type „1”)		3 x 170M3012
Fuse base (number x part no.)		3 x 170H3004

Terminal capacities

Cable lengths		
Solid	mm^2	1 x (25 - 70) 2 x (6 - 25)
Stranded	mm^2	1 x (25 - 70) 2 x (6 - 25)
Solid or stranded	AWG	1 x (12 - 2/0)
Copper band	MM	2 x 9 x 0.8 9 x 9 x 0.8
Tightening torque	Nm	6 (≤ 10 mm^2); 9 (> 10 mm^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	0.4
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
Current consumption at peak performance (close bypass) at 24 V DC	I_{Peak}	mA/ ms	600/50
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

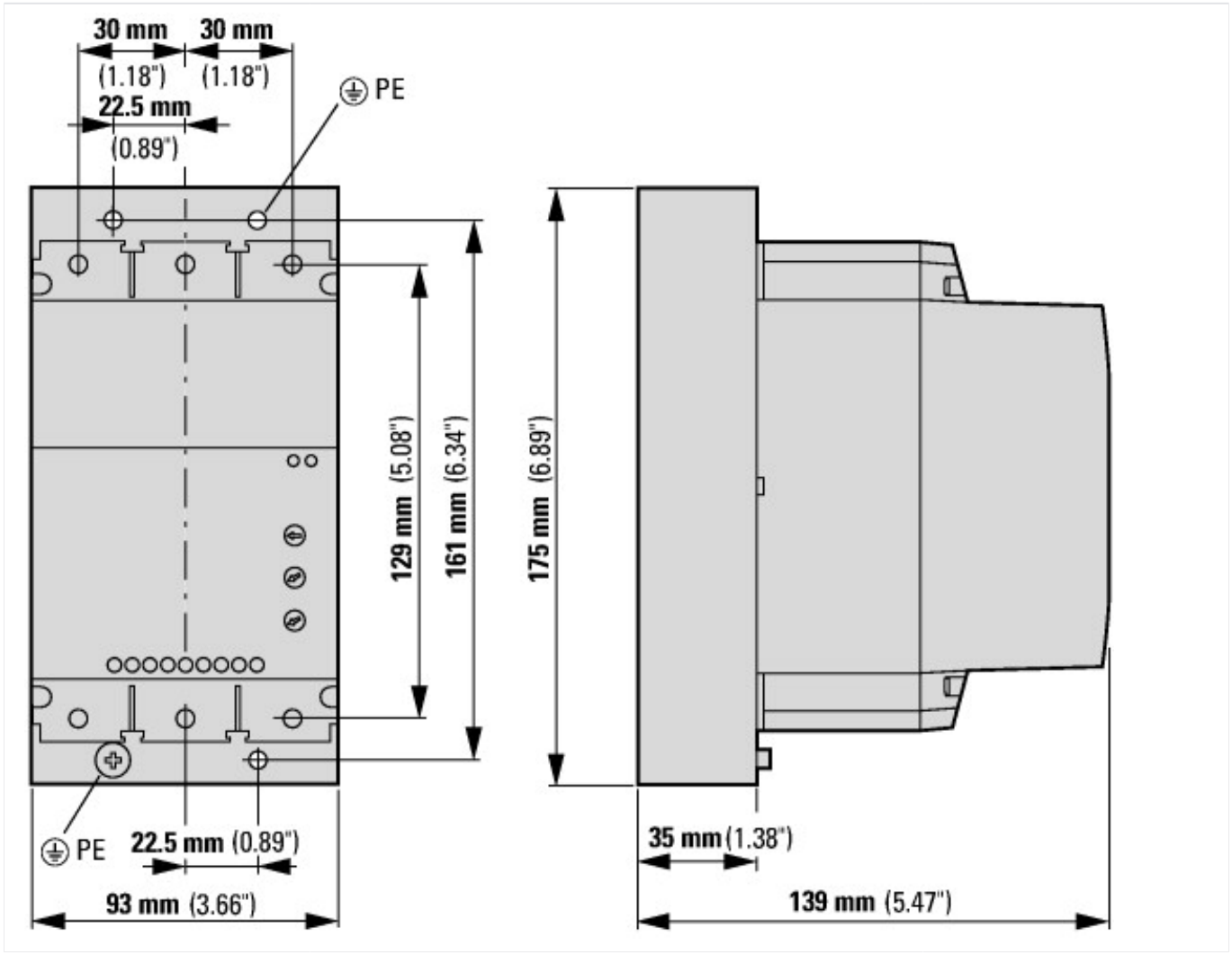
Fast switching (semiconductor contactor)			- (minimum ramp time 1s)
Soft start function			✓
Reversing starter			External solution required
Suppression of closing transients			✓
Suppression of DC components for motors			✓
Potential isolation between power and control sections			✓

Notes

Rated impulse withstand voltage:

- 1.2 µs/50 µs (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)

IL03902005Z Instructions for DS7 Soft Starter	
IL03902005Z Instructions for DS7 Soft Starter	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03902005Z2012_08.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