Reversing starter 2.4A with SmartWire-DT

Part no. EMS-RO-T-2,4-SWD-ADP
Article no. 172761
Catalog No. EMS-RO-T-2P4-SWD-ADP

Powering Business Worldwide

Delivery program

Product range			Electronic motor starter
Product range			SmartWire-DT slave
Subrange			SmartWire-DT electronic motor starters
Basic function			Reversing starters (complete devices)
Function			For connecting to SmartWire-DT
Description			DOL starting Reversing start Motor protection Circuit design: safety output stage with bypass, three-phase disconnect.
Motor ratings			
Max. rating for three-phase motors, 50 - 60 Hz			
AC-53a			
380 V 400 V 415 V	P	kW	0.06 - 0.75
Setting range of overload releases	I_r	A_x	0,18 - 2,4
Actuating voltage			24 V DC
Connection technique			Push in terminals
Connection to SmartWire-DT			yes

Technical data

General

Standards			IEC/EN 60947-4-2
Dimensions			
Width		mm	30
Height		mm	157
Depth		mm	139
Weight		kg	0.32
Mounting			Top-hat rail IEC/EN 60715, 35 mm
Protection type (IEC/EN 60529, EN50178, VBG 4)			IP20
Mounting position			Vertical Motor feeder at bottom
Lifespan, electrical	Operations		3×10^7
Max. switching frequency		Operations/h	7200 (pulse pause time 50:50)
Terminal capacity			
Solid		mm^2	1 x (0.75 - 2.5) 1 x AWG20 - 14
flexible, with ferrule		mm^2	2 x (0,75 - 2,5) 1 x AWG20 - 14
Notes			Minimum length 10 mm.
flexible, with twin ferrule		mm^2	2 x (0,75 - 1,5) 2 x AWG20 - 16
Notes			Minimum length 10 mm.

Climatic environmental conditions

Operating ambient temperature		°C	-25 - +60, in accordance with IEC 60068-2-1
Condensation			Take appropriate measures to prevent condensation
Storage	ϑ	°C	-40 - +80

Main conducting paths

Rated impulse withstand voltage	U_{imp}	V AC	6000
Overvoltage category/pollution degree			III/2
Rated operational voltage	U_e	V	42 - 550
Rated operational current			
AC-51	I_e	A	0.15 - 2.40
AC-53a	I_e	A	0.15 - 2.4
Heat dissipation	P_V	W	1.1 - 3.3
Safe isolation to IEC/EN60947-1			
Between supply, control, and switching voltages		V AC	≤ 300
Safe isolation to EN 50178			
Between supply, control, and switching voltages		V AC	500
Current measurement			
Setting range of overload releases	I_r	A_x	0,18 - 2,4
Release class		CLASS	10
Recovery time	t_W	min.	2 (manual startup) 20 (automatic restart)
Balance monitoring			
Magnitude $I_{max} > I_{rated}$ $((I_{max} - I_{min})/I_{max})$		%	If ≥ 33, pick-up time of 120 s If ≥ 67, pick-up time of 1.8 s
Magnitude $I_{max} < I_{rated}$ $((I_{max} - I_{min})/I_{rated})$		%	If ≥ 33, pick-up time of 120 s If ≥ 67, pick-up time of 1.8 s
Short-circuit rating			
Type “1” coordination			
Short-circuit protective device			50 kA, 500 V AC: Fuse 16 A gG/gL 50 kA, 415 V AC: PKM0-4 15 kA, 415 V AC: PKM0-6,3

Control section

Input data			
Supply voltage	U_{AUX}	V DC	24 (-20 - +50 %)
Residual ripple on the input voltage		%	≤ 5
Current draw inrush	U_{AUX}	mA	120
Current draw (operation)	U_{AUX}	mA	50

Electromagnetic compatibility (EMC)

Electrostatic discharge (ESD)			
applied standard			IEC EN 61000-4-2, Level 3
Air discharge		kV	8
Contact discharge		kV	6
Electromagnetic fields (RFI)			
applied standard			IEC/EN 61000-4-3
		V/m	800 - 1000 MHz: 10 1.4 - 2 GHz: 10 2.0 - 2.7 GHz: 3
Radio interference suppression			EN 55011, Class A (emitted interference, line-conducted) EN 61000-6-3, Class A (emitted interference, radiated)
Note on use			This product is designed for operation in industrial environments (environment 2). The use in residential environments (environment 1) could cause electrical interference so that addition suppression must be planned.
Burst		kV	2 IEC/EN 61000-4-4, level 3
power pulses (Surge)			1 kV (symmetrical) 2 kV (asymmetrical) according to IEC/EN 61000-4-5
Immunity to line-conducted interference to (IEC/EN 61000-4-6)		V	10

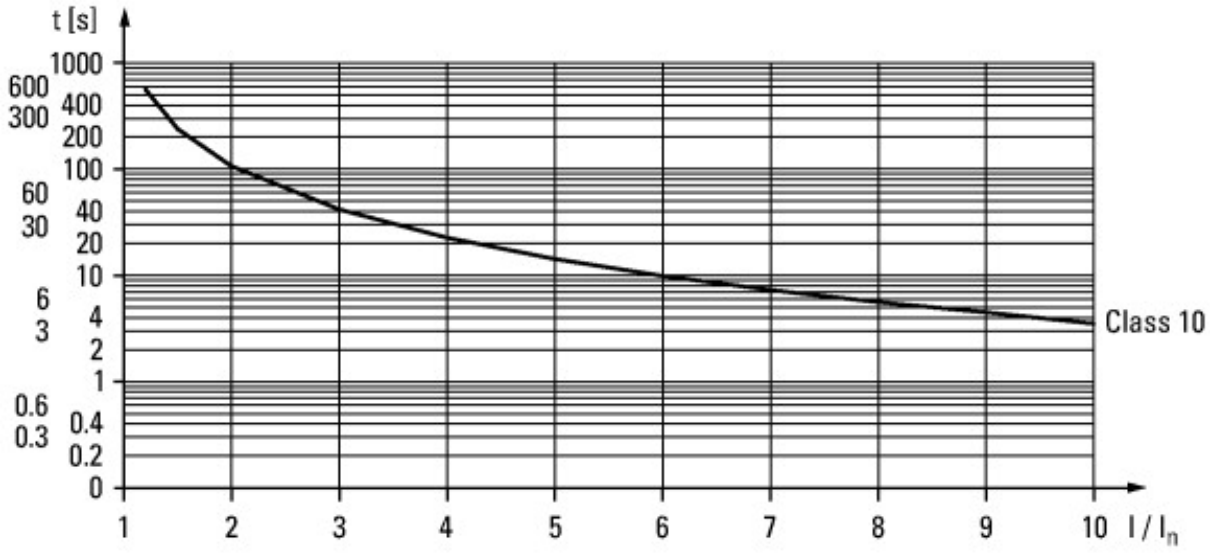
Design verification as per IEC/EN 61439

Technical data for design verification		
Operating ambient temperature min.	°C	-25
Operating ambient temperature max.	°C	60

Technical data ETIM 6.0

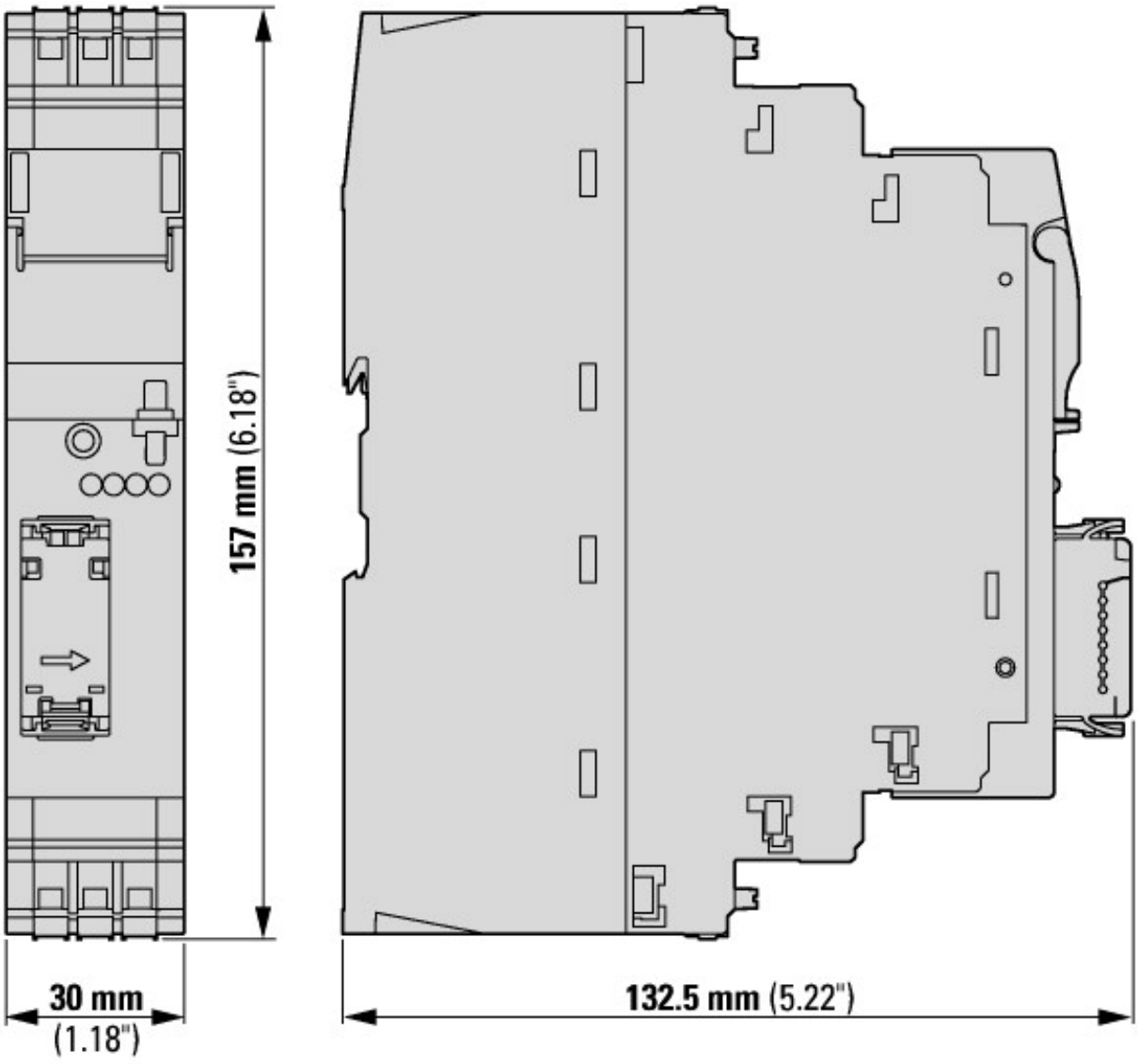
Low-voltage industrial components (EG000017) / Motor starter/Motor starter combination (EC001037)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Load breakout, motor breakout / Motor starter combination (ecl@ss8.1-27-37-09-05 [AJZ718010])		
Kind of motor starter		Reversing starter
With short-circuit release		No
Rated control supply voltage Us at AC 50HZ	V	0 - 0
Rated control supply voltage Us at AC 60HZ	V	0 - 0
Rated control supply voltage Us at DC	V	24 - 24
Voltage type for actuating		DC
Rated operation power at AC-3, 230 V, 3-phase	kW	0.37
Rated operation power at AC-3, 400 V	kW	0.75
Rated power, 460 V, 60 Hz, 3-phase	kW	0
Rated power, 575 V, 60 Hz, 3-phase	kW	0
Rated operation current Ie	A	2.4
Rated operation current at AC-3, 400 V	A	2.4
Overload release current setting	A	0.18 - 2.4
Rated conditional short-circuit current, type 1, 480 Y/277 V	A	0
Rated conditional short-circuit current, type 1, 600 Y/347 V	A	0
Rated conditional short-circuit current, type 2, 230 V	A	0
Rated conditional short-circuit current, type 2, 400 V	A	0
Number of auxiliary contacts as normally open contact		0
Number of auxiliary contacts as normally closed contact		0
Ambient temperature, , upper operating limit	°C	60
Temperature compensated overload protection		Yes
Release class		CLASS 10
Type of electrical connection of main circuit		Spring clamp connection
Type of electrical connection for auxiliary- and control current circuit		Spring clamp connection
Rail mounting possible		Yes
Degree of protection (IP)		IP20
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for MODBUS		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		No
Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		No
Supporting protocol for INTERBUS-Safety		No
Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		Yes

Characteristics



Tripping characteristics
CLASS 10

Dimensions



Additional product information (links)

IL120002ZU Electronic motor starter with SWD connection	
IL120002ZU Electronic motor starter with SWD connection	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL120002ZU2015_04.pdf

Produktinformation EMS, Hinweise zur Projektierung	http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_1040938_de.pdf