DATASHEET - EMS2-RO-Z-9-230VAC



Reversing starter, 230 V AC, 1,5 - 6,5 (AC-53a), 9 (AC-51) A, Screw terminals



Part no. EMS2-RO-Z-9-230VAC Catalog No. 197171

Alternate Catalog EMS2-R0-Z-9-230VAC

No.

EL-Nummer 4100384

(Norway)

Delivery program

Product range			Electronic motor starter
Basic function			Reversing starters (complete devices)
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	0.55 - 3
Setting range of overload releases	l _r	A_x	1,5 - 6,5 (AC-53a) 1,5 - 9 (AC-51)
Actuating voltage			230 V AC
Connection technique			Screw terminals
Connection to SmartWire-DT			no

Technical data

Operational voltage range

Operating voltage range min.

General

General			
Standards			IEC/EN 60947-4-2 UL508
Ambient temperature			
Storage		°C	
Min. ambient temperature, storage		°C	- 40
Ambient temperature, storage max.		°C	+ 80
Open		°C	
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	+ 70
Weight		kg	0.22
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
Terminal capacity			
Screw terminals			
Terminal capacity main cable			
		mm ²	0.2 - 2.5
		AWG	24 - 14
Terminal capacity control circuit cables			
		mm ²	0.14 - 2.5
		AWG	26 - 14
tightening torque		N/m	0.5 - 0.6
Main conducting paths			
Rated operational voltage	U _e	V AC	500

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Operating voltage range max.		V	550
Rated operational current			
AC-51	I _e	Α	9
AC-53a	l _e	Α	6.5
			AC-53a: Please note possible derating.
Setting range of overload releases	Ir	A_x	1,5 - 6,5 (AC-53a) 1,5 - 9 (AC-51)
Release class		CLASS	10A
Heat dissipation	P_V	W	2.6 - 16.1
Control section			
Rated control voltage	U_s	V AC	230
Control voltage range		V	85 - 253 V AC
Rated control current	Is	mA	4
Actuating circuit (ON, L, R)			
Rated actuation voltage	U _c	V	230
Switching level "Low"		V	0 - 48 V AC
Switching level "confirm Off"		V	< 5 V DC
Switching level "High"		V	85 - 253 V AC
Rated actuating current	I _c	mA	7
Relay outputs			
Contacts			
CO = changeover			1 CO
Rated operational current			
AC-15			
230 V	l _e	Α	3
DC-13			
24 V	le	Α	2
Electromagnetic compatibility (EMC)			
Radio interference suppression			EN 55011

	EN 61000-6-3, Class A (emitted interference, radiated)
Technical safety parameters:	

Notes	motor protection

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	9
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	16.1
Static heat dissipation, non-current-dependent	P _{vs}	W	1
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70
			If necessary, Allow for derating
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties	
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 (II) is observed

Technical data ETIM 7.0

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@ss10.0.1-27-37-09-05 [AJZ718013])

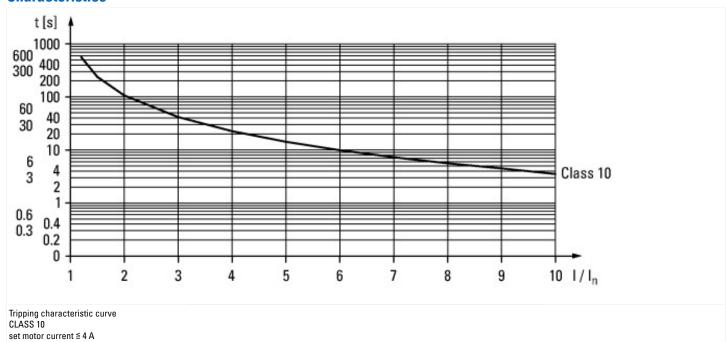
Kind of more statered Reversing starter With short-circuit rotease V 30 - 20 Rated control supply voltage Us at AC 58HZ V 20 - 20 Rated control supply voltage Us at AC 58HZ V 0 - 0 Rated control supply voltage Us at AC 58HZ V 0 - 0 Rated operation power at AC-3, 28D V.3 -phase W 1 - 0 Rated operation power at AC-3, 48D V W 1 - 0 Rated operation power at AC-3, 48D V W 0 - 0 Rated operation power at AC-3, 48D V W 0 - 0 Rated operation current la W 0 - 0 Rated operation current la W 0 - 0 Rated operation current at AC-3, 48D V W 0 - 0 Rated operation current at AC-3, 48D V W 0 - 0 Rated conditional short-circuit current, ype 1, 48D Y/27Y V A 0 - 0 Rated conditional short-circuit current, ype 2, 28D V A 0 - 0 Rated conditional short-circuit current, ype 2, 40D V A 0 - 0 Number of auxiliary contact as normally open centact Y 0 - 0 Release clas	[AJZ718013])		
Rated control supply voltage Us at AC 50HZ V 200 - 230 Rated control supply voltage Us at AC 60HZ V 0 - 0 Canadacontrol supply voltage Us at AC 50HZ V 0 - 0 Rated control supply voltage Us at DC V 0 - 0 Victose type for extractions AC AC Rated operation power at AC-3, 200 V.3-phase KW 1 - 5 Rated power, 450 V.60 Hz, 3-phase KW 0 - 0 Rated power, 450 V.60 Hz, 3-phase KW 0 - 0 Rated power, 450 V.60 Hz, 3-phase KW 0 - 0 Rated power, 450 V.60 Hz, 3-phase KW 0 - 0 Rated power, 450 V.60 Hz, 3-phase KW 0 - 0 Rated power, 450 V.60 Hz, 3-phase KW 0 - 0 Rated power, 450 V.60 Hz, 3-phase KW 0 - 0 Rated power, 450 V.60 Hz, 3-phase KW 0 - 0 Rated power, 450 V.60 Hz, 3-phase A 0 - 0 Rated power, 450 V.60 Hz, 3-phase A 0 - 0 Rated power, 450 V.60 Hz, 3-phase A 0 - 0 Rated power, 450 V.60 Hz, 3-phase 0 - 0 <	Kind of motor starter		Reversing starter
Rated control supply voltage Us at AC 60HZ V 0 0 Rated control supply voltage Us at DC V 0 0 Voltage Type for actualing KW 15 Rated operation power at AC-3, 250 V, 3-phase KW 15 Rated operation power at AC-3, 450 V KW 0 Rated operation current at AC-3, 450 V KW 0 Rated operation current at AC-3, 450 V A 5 Rated conditional short-circuit current, ppe 1, 480 Y277 V A 6 Rated conditional short-circuit current, ppe 1, 480 Y277 V A 0 Rated conditional short-circuit current, ppe 2, 400 V A 0 Rated conditional short-circuit current, ppe 2, 400 V A 0 Rated conditional short-circuit current, ppe 2, 400 V A 0 Rated conditional short-circuit current, ppe 2, 400 V A 0 Rated conditional short-circuit current, ppe 2, 400 V A 0 Rated conditional short-circuit current, ppe 2, 400 V A 0 Rated conditional short-circuit current, ppe 2, 400 V A 0 Rate conditional short-circuit	With short-circuit release		No
Rated control supply voltage Us at DC V 0 - 0 Voltage type for actuating C AC Rated operation power at AC-3, 200 V.3-phase W 15 Rated operation power at AC-3, 400 V W 0 Rated operation power at AC-3, 400 V W 0 Rated operation current leading ower, 400 V, 80 Hz, 3-phase W 0 Rated operation current at AC-3, 400 V A 3 Overload release current satting A 15 - 9 Rated conditional short-circuit current, type 1, 480 V;277 V A 10 - 9 Rated conditional short-circuit current, type 1, 200 V;377 V A 0 Rated conditional short-circuit current, type 1, 200 V;377 V A 0 Rated conditional short-circuit current, type 2, 230 V A 0 Number of auxiliary cortacts as normally oper contact B 7 Number of auxiliary cortacts as normally closed contact C 4 Release class C 7 C Release class C 7 C Release class C 7 C <tr< td=""><td>Rated control supply voltage Us at AC 50HZ</td><td>V</td><td>230 - 230</td></tr<>	Rated control supply voltage Us at AC 50HZ	V	230 - 230
Voltage type for a clusting AC Rated operation power at AC-3,230 V.3-phase W 1.5 Rated power at AC-3,400 V W 3 Rated power at AC-3,400 V W 0 Rated power 55 V 60 Hz,3-phase W 0 Rated operation current ta A 3 Rated operation current at AC-3,400 V A 5 Overfoar elease current setting A 1.5 - 9 Rated conditional short-circuit current, type 1, 480 Y/277 V A 0 Rated conditional short-circuit current, type 1, 500 Y/347 V A 0 Rated conditional short-circuit current, type 2, 230 V A 0 Rated conditional short-circuit current, type 2, 230 V A 0 Number of auxiliary contacts as normally open cortact Y 0 Number of suxiliary contacts as normally open cortact Y 0 Release class CLASS 10 CLASS 10 Release class CLASS 10 CLASS 10 Release class CLASS 10 CLASS 10 With transformer Y Y Y	Rated control supply voltage Us at AC 60HZ	V	0 - 0
Rated operation power at AC-3, 20 V. 3-phase KW 15 Rated operation power at AC-3, 400 V W 3 Rated operation power at AC-3, 400 V W 0 Rated operation oursent at AC-3, 400 V W 0 Rated operation current at AC-3, 400 V A 9 Rated operation current at AC-3, 400 V A 5 Overload release current setting A 15 - 9 Rated conditional short-circuit current, type 1, 800 V/347 V A 0 Rated conditional short-circuit current, type 2, 200 V A 0 Rated conditional short-circuit current, type 2, 200 V A 0 Rated conditional short-circuit current, type 2, 200 V A 0 Rated conditional short-circuit current, type 2, 200 V A 0 Rated conditional short-circuit current, type 2, 200 V A 0 Number of auxiliary contacts as normally open contact Y 0 Rolesso class C 0 0 Rolesso class C 0 0 Rolesso class C 0 0	Rated control supply voltage Us at DC	V	0 - 0
Rated operation power at AC-3.400 V kW 3 Rated power, 460 V, 60 Hz, 3-phase kW 0 Rated operation current at AC-3,400 V A 9 Rated operation current at AC-3,400 V A 5 Overload release current setting A 15 - 9 Rated conditional short-circuit current, type 1,480 Y/277 V A 0 Rated conditional short-circuit current, type 2,400 V A 0 Rated conditional short-circuit current, type 2,400 V A 0 Rated conditional short-circuit current, type 2,400 V A 0 Rated conditional short-circuit current, type 2,400 V A 0 Number of suxiliary contacts as normally open contact A 0 Number of suxiliary contacts as normally closed contact C 0 Release class C 0 0 Type of electrical connection of main circuit C 0 0 Type of electrical connection of main circuit C 0 0 With transformer C 0 0 With transformer C 0	Voltage type for actuating		AC
Rated power, 460 V, 60 Hz, 3-phase KW 0 Rated pomer, 575 V, 60 Hz, 3-phase WW 0 Rated operation current to 18 A 9 Rated operation current at AC3, 400 V A 15-9 Overload release current setting A 0 Rated conditional short-circuit current, type 1, 480 V/277 V A 0 Rated conditional short-circuit current, type 2, 230 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 closed contact A 0 Ambient temperature, upper operating limit C 4 Temperature compensated overload protection C 4 Release class C 4 Type of electrical connection for auxiliary- and control current circuit C 5 Type of electrical connection for auxiliary- and control current circuit C 8 Suitable for emergency stop P 8 Conditional pass according to IEC 60947-4-3 P 4	Rated operation power at AC-3, 230 V, 3-phase	kW	1.5
Rated power, 575 V, 60 Hz, 3-phase kW 0 Rated operation current 1e A 9 Rated operation current a ACO3, 400 V A 5.5 Overload release current setting A 15 - 9 Rated conditional short-circuit current, type 1, 480 Y/277 V A 0 Rated conditional short-circuit current, type 2, 230 V A 0 Rated conditional short-circuit current, type 2, 240 V A 0 Number of auxiliary contacts as normally closed contact A 0 Number of auxiliary contacts as normally closed contact A 0 Ambient temperature, upper operating limit C 4 Temperature compensated overload protection C 4 Release class CLASS 10 Release class CLASS 10 Type of electrical connection of main circuit Screw connection Yes CLASS 10 Number of command positions C Yes Suitable for emergency stop E Yes Coordination class according to IEC 60947-4-3 Yes Yes Number of indicator lights	Rated operation power at AC-3, 400 V	kW	3
Rated operation current le A 9 Rated operation current at AG-3,400 V A 5.5 Overload release current setting A 1.5 - 9 Rated conditional short-circuit current, type 1,480 Y/277 V A 0 Rated conditional short-circuit current, type 1,500 Y/347 V A 0 Rated conditional short-circuit current, type 2,400 V A 0 Number of auxiliary contacts as normally open contact P 1 Number of auxiliary contacts as normally closed contact P 40 Temperature compensated overload protection P 40 Release class CLASS 10 CLASS 10 Type of electrical connection for auxiliary- and control current circuit P Yes Rail mounting possible Yes Screw connection With transformer Yes No Number of command positions Yes No Suitable for emergency stop Yes No Coordination class according to IEC 60947-43 Yes Yes Number of indicator lights Yes Yes Correction (IPI)	Rated power, 460 V, 60 Hz, 3-phase	kW	0
Rated operation current at AC-3,400 V A 5.5 - 9 Overload release current setting A 1.5 - 9 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 2,230 V A 0 Number of auxiliary contacts as normally open contact B 1 Number of auxiliary contacts as normally open contact B 1 Ambient temperature, upper operating limit C 4 Temperature compensated overload protection Yes Ves Release class C 5.5 Exerconnection Release class C 5.5 Exerconnection Rail mounting possible Yes 5.5 Exerconnection With transformer Yes No Number of command positions Yes No Suitable for emergency stop Yes No Coordination class according to IEC 6947-4-3 Yes Yes Number of indicator	Rated power, 575 V, 60 Hz, 3-phase	kW	0
Overload release current setting A 15 - 9 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, 400 V A 0 Number of auxiliary contacts as normally open contact B 1 Number of auxiliary contacts as normally open contact C 4 Number of auxiliary contacts as normally open contact B C Number of auxiliary contacts as normally open contact C 1 Ambient temperature, upper operating limit B C 4 Temperature compensated overload protection Yes E CLSS 10 Release class CLSS 10 Screw connection Yes With transformer Yes No No Number of command positions Yes No Suitable of emergency stop Yes No Cordination class according to IEC 80947-4-3 Yes Yes With fuse Yes Yes With fuse Yes Yes <td>Rated operation current le</td> <td>Α</td> <td>9</td>	Rated operation current le	Α	9
Rated conditional short-circuit current, type 1, 480 Y/277 V	Rated operation current at AC-3, 400 V	Α	6.5
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 closed contact I 1 Ambient temperature, upper operating limit Yes 40 Temperature compensated overload protection Yes 1 Release class CLASS 10 CLASS 10 Type of electrical connection of main circuit Yes Screw connection Type of electrical connection for auxiliary- and control current circuit Yes Yes With transformer Yes Yes Number of command positions Yes Yes Suitable for emergency stop Yes Yes Coordination class according to IEC 60947-4-3 Yes Yes Number of indicator lights Yes Yes External reset possible Yes Yes With fuse Yes Yes Obegree of protection (IP) Yes Yes Obegree of protection (NEMA)	Overload release current setting	Α	1.5 - 9
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 closed contact 1 Number of auxiliary contacts as normally closed contact *C 40 Ambient temperature, upper operating limit *C 40 Temperature compensated overload protection *C 40 Release class *CLASS 10 Type of electrical connection of main circuit *C *Serve connection Type of electrical connection for auxiliary- and control current circuit *Yes *C With transformer *Ves *Ves Number of command positions *Yes *No Suitable for emergency stop *No **No Coordination class according to IEC 60947-4-3 *Yes ** Number of indicator lights *Yes ** External reset possible *Yes ** With fuse No ** Degree of protection (IP) No ** Degree of protection (NEMA) ** ** <	Rated conditional short-circuit current, type 1, 480 Y/277 V	Α	0
Rated conditional short-circuit current, type 2, 400 V A 0 Number of auxiliary contacts as normally open contact 1 Number of auxiliary contacts as normally closed contact 1 Ambient temperature, upper operating limit °C 40 Temperature compensated overload protection CLASS 10 Release class CLASS 10 Type of electrical connection of main circuit Screw connection Type of electrical connection for auxiliary- and control current circuit Yes With transformer Yes With transformer No Suitable for emergency stop No Coordination class according to IEC 60947-43 No Number of indicator lights Yes External reset possible Yes With fuse No Degree of protection (IP) No Degree of protection (IP) No Degree of protection (IPE) No No No	Rated conditional short-circuit current, type 1, 600 Y/347 V	Α	0
Number of auxiliary contacts as normally open contact 1 Number of auxiliary contacts as normally closed contact 1 Ambient temperature, upper operating limit °C 40 Temperature compensated overload protection Yes Release class CLASS 10 Type of electrical connection of main circuit Screw connection Type of electrical connection for auxiliary- and control current circuit Yes With transformer Yes With transformer No Suitable for emergency stop No Coordination class according to IEC 60947-4-3 Yes Number of indicator lights 4 External reset possible Yes With fuse No Degree of protection (IP) Po2 Degree of protection (IP) Pi20 Degree of protection (NEMA) Other Supporting protocol for TCP/IP Vich fuse	Rated conditional short-circuit current, type 2, 230 V	Α	0
Number of auxiliary contacts as normally closed contact Ambient temperature, upper operating limit Ambient temperature compensated overload protection Release class Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for TCP/IP I a d I a d Ambient temperature, upper operating limit Ve CLASS 10 CLASS 10 Screw connection Screw connection Screw connection Ves Screw connection No Screw con	Rated conditional short-circuit current, type 2, 400 V	Α	0
Ambient temperature, upper operating limit Temperature compensated overload protection Release class Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse Degree of protection (NEMA) Supporting protocol for TCP/IP August 1	Number of auxiliary contacts as normally open contact		1
Temperature compensated overload protection Release class CLASS 10 Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Ves CLASS 10 CLAS 10 CLASS 10 CLAS 10 CLASS 10 CLAS 10 CLASS 10 CLAS 1	Number of auxiliary contacts as normally closed contact		1
Release class Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP	Ambient temperature, upper operating limit	°C	40
Type of electrical connection of main circuit Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer No Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Screw connection Yes No Other	Temperature compensated overload protection		Yes
Type of electrical connection for auxiliary- and control current circuit Rail mounting possible With transformer No Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Serew connection Yes No Vo Possible No Other No Other	Release class		CLASS 10
Rail mounting possible With transformer No Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP No Yes Ves No Other No	Type of electrical connection of main circuit		Screw connection
With transformer No Number of command positions Suitable for emergency stop No Coordination class according to IEC 60947-4-3 Number of indicator lights 4 External reset possible With fuse No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP No	Type of electrical connection for auxiliary- and control current circuit		Screw connection
Number of command positions Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights 4 External reset possible Vith fuse No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP No No No No No Other	Rail mounting possible		Yes
Suitable for emergency stop Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse With fuse Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP No	With transformer		No
Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP No	Number of command positions		
Number of indicator lights4External reset possibleYesWith fuseNoDegree of protection (IP)IP20Degree of protection (NEMA)OtherSupporting protocol for TCP/IPNo	Suitable for emergency stop		No
External reset possible With fuse No Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Yes No No IP20 Other	Coordination class according to IEC 60947-4-3		
With fuse No Degree of protection (IP) IP20 Degree of protection (NEMA) Other Supporting protocol for TCP/IP No	Number of indicator lights		4
Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP IP20 Other No	External reset possible		Yes
Degree of protection (NEMA) Supporting protocol for TCP/IP No	With fuse		No
Supporting protocol for TCP/IP No	Degree of protection (IP)		IP20
	Degree of protection (NEMA)		Other
Supporting protocol for PROFIBUS No	Supporting protocol for TCP/IP		No
	Supporting protocol for PROFIBUS		No

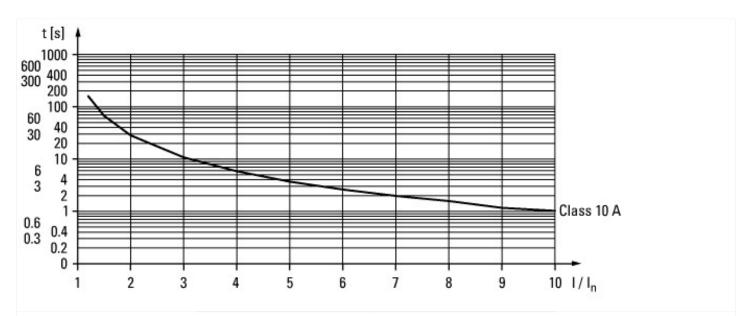
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for MODBUS		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol 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		No
Width	mm	22.5
Height	mm	106.8
Depth	mm	113.6

Approvals

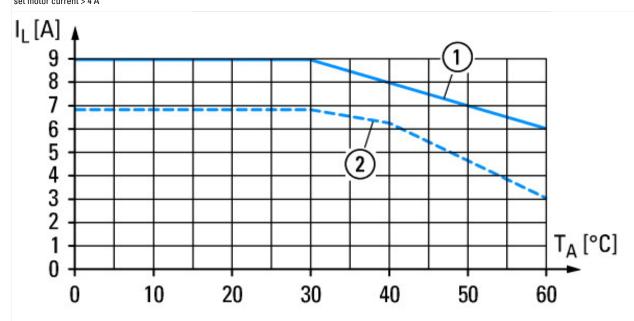
Product Standards	UL 60947-4-1; CSA C22.2 No. 60947-4-1-14; CE marking
UL File No.	E29096
UL Category Control No.	NLDX, NLDX7
CSA File No.	UL report applies to both US and Canada
North America Certification	UL listed, certified by UL for use in Canada
Specially designed for North America	No

Characteristics





Tripping characteristic curve CLASS 10A set motor current > 4 A



Electricity derating devices with $I_e = 9 \text{ A}$

- ① For devices installed with a minimum clearance of 20 mm ② For devices in direct sequence

Dimensions

