## **DATASHEET - MSC-DE-12-M17-SP(24V50/60HZ)**



DOL starter, Ir= 3 - 12 A, 24 V 50/60 Hz, AC voltage

Part no. MSC-DE-12-M17-SP(24V50/60HZ)
Catalog No. 167816

Alternate Catalog XTFCE012BCCST

No



(=,)2			
Delivery program			
Basic function			Type E DOL starters (complete devices)
Basic device			MSC
Connection technique			Screw terminals
Components for			North America
Connection to SmartWire-DT			no
Maximum motor rating			
AC HP = PS			
200 V 208 V		HP	3
230 V 240 V		HP	3
460 V 480 V		HP	7.5
Short Circuit Current Rating			
240 V		kA	18
480 Y 277 V		kA	18
Setting range			
Setting range of overload releases	I <sub>r</sub>	Α	3 - 12
Contact sequence			M 3~
Actuating voltage			24 V 50/60 Hz
			AC voltage
Motor-protective circuit-breakers PKE12/XTU-12			
Contactor DILM17-10()			

DOL starter wiring set

Mechanical connection element and electrical electric contact module PKZM0-XDM32

Extension terminal BK25/3-PKZ0-E

#### Notes

The DOL starter type E (complete devices) consists of a PKE motor-protective circuit-breaker with AK-PKZO, a DILM contactor and an extension terminal BK25/3-PKZO-E.

Motor-protective circuit-breaker and contactor mounted on top hat rail adapter plate.

The connection of the main circuit between PKE and contactor is established with electrical contact modules.

# **Technical data**

General		
Standards		IEC/EN 60947-4-1, VDE 0660, UL, CSA
Mounting position		
Altitude	m	Max. 2000
Ambient temperature		-25 - +55

Main conducting paths			
Rated impulse withstand voltage	$U_{imp}$	V AC	6000
Overvoltage category/pollution degree			III/3
Rated operational voltage	U <sub>e</sub>	V	208 - 600
Rated operational current			
Open, 3-pole: 50 – 60 Hz			
380 V 400 V	l <sub>e</sub>	Α	12
AC-4 cycle operation			
Minimum current flow times		ms	500 (Class 5) 700 (Class 10) 900 (Class 15) 1000 (Class 20)
Minimum cut-out periods		ms	500
Note		ms	In AC-4 cycle operation, going below the minimum current flow time can cause overheating of the load (motor).  For all combinations with an SWD activation, you need not adhere to the minimum current flow times and minimum cut-out periods.

#### Additional technical data

Motor protective circuit breaker PKZM0, PKE			PKE motor-protective circuit-breaker, see motor-protective circuit-breaker product group DILM contactors, see contactor product group
DILM contactors			
Current heat loss			
Current heat loss at I <sub>e</sub> to AC-3/400 V		W	4.2
Power consumption of the coil in a cold state and 1.0 x $\mbox{U}_{\mbox{\scriptsize S}}$			
Sealing power	Sealing	CO	2.1

#### **Rating data for approved types**

Switching capacity		
Maximum motor rating		
Three-phase		
200 V 208 V	НР	3
230 V 240 V	НР	3
460 V 480 V	HP	7.5
Auxiliary contacts		
Pilot Duty		
AC operated		A600
DC operated		P300
General Use		

AC	V	600
AC	Α	15
DC	V	250
DC	Α	1
Short Circuit Current Rating, type E	SCCR	
240 V	kA	18
480 Y / 277 V	kA	18
Short Circuit Current Rating	SCCR	
Basic Rating		
SCCR	kA	5
max. Fuse	А	125
max. CB	А	125
480 V High Fault		
SCCR (fuse)	kA	100
max. Fuse	А	60 Class J/CC
SCCR (CB)	kA	65
max. CB	А	60
600 V High Fault		
SCCR (fuse)	kA	100
max. Fuse	А	60 Class J/CC

# Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	12
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	1.4
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	4.2
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	2.1
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
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 switch gear must be observed. $\label{eq:constraint}$

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 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 bind scharciar         Medical formation supply voltage (see al. 65007)         Common supply voltage (see al. 65007)         Vis. 24 - 24 - 24 - 24 - 24 - 24 - 24 - 24	[AJZ718013])	eciniology / Load brear	Rout, motor preakout/ wotor starter combination (ec. @3310.0.1-27-07-03-03
Relate control supply voltage Us at A C 59872 Relate control supply voltage Us at A C 69972 Relate control supply voltage Us at A C 69972 Relate control supply voltage Us at A C 69972 Relate conditional short-circuit current, type 1, 4897271 Relate conditional short-circuit current, type 1, 4897271 Relate conditional short-circuit current, type 2, 48972 Relate conditi	Kind of motor starter		Direct starter
Read cantral supply voltage be an AC 6047.   Read cantral supply voltage be an EC	With short-circuit release		Yes
Read control supply voltage Us at DC         Voltage byte for accutanting         AC           Read deperation power at AC-3, 400 V 3-blase         W         3           Read operation power at AC-3, 400 V 40 blase         W         5           Read operation power at AC-3, 400 V 40 blase         W         5           Read operation current le         W         AC           Read operation current at AC-3, 400 V         AC         12           Read operation current at AC-3, 400 V         AC         12           Read operation current setting         AC         3         12           Read conditional storic circuit current, type 1, 460 V277 V         AC         0           Read conditional storic-circuit current, type 1, 460 V277 V         AC         0           Read conditional storic-circuit current, type 1, 460 V277 V         AC         0           Read conditional storic-circuit current, type 2, 460 V         AC         0           Read conditional storic-circuit current, type 2, 460 V         AC         0           Number of abulative contexts an annually operation current circuit         AC         0           Read conditional storic circuit current, type 2, 460 V         AC         0           Read conditional storic circuit current, type 2, 460 V         AC         0           Read	Rated control supply voltage Us at AC 50HZ	V	24 - 24
Village tyge for actualing         kW         3           Rated deperation prover at AGA, 30 W, 3-phase         kW         7           Rated spower, 48 W, 81 Hz, 3-phase         kW         5           Rated power, 57 W, 81 Hz, 3-phase         kW         0           Rated power, 57 W, 81 Hz, 3-phase         kW         0           Rated power, 57 W, 81 Hz, 3-phase         kW         12           Rated powerfor current x BACA, 40 W         A         12           Controd rollinose current setting         A         0           Rated conditional shirt-circuit current, ype 1,480 Y/37 V         A         0           Rated conditional shirt-circuit current, ype 2, 100 Y/37 V         A         0           Rated conditional shirt-circuit current, ype 2, 201 V         A         0           Rated conditional shirt-circuit current, ype 2, 201 V         A         0           Rated conditional shirt-circuit current, ype 2, 400 V         A         0           Rated conditional shirt-circuit current, ype 2, 400 V         Ye         0           Rated conditional shirt-circuit current, ype 2, 400 V         Ye         0           Related conditional shirt-circuit current, ype 2, 400 V         Ye         0           Related conditional shirt-circuit current, ype 2, 400 V         Ye         0     <	Rated control supply voltage Us at AC 60HZ	V	24 - 24
Read operation power at ACS, 20V3 sphase   W	Rated control supply voltage Us at DC	V	0 - 0
Rated operation power at AC3, 400 V         NW         5.52           Rated operation current le         NW         5.22           Rated operation current et aC4, 2-400 V         A         12           Cerebration current et aC4, 2-400 V         A         12           Rated conditional short-circuit current, type 1, 400 1/277 V         A         0           Rated conditional short-circuit current, type 1, 400 1/277 V         A         0           Rated conditional short-circuit current, type 1, 400 1/277 V         A         0           Rated conditional short-circuit current, type 2, 400 1/277 V         A         0           Rated conditional short-circuit current, type 2, 400 1/277 V         A         0           Rated conditional short-circuit current, type 2, 400 1/27 V         A         0           Rated conditional short-circuit current, type 2, 400 1/27 V         A         0           Number of auxiliary contacts as normally classed contact         B         0         0           Number of auxiliary contacts as normally classed contact         C         8         3         0           Release classes         C         8         4         0         0         0         0         0         0         0         0         0         0         0         0 <t< td=""><td>Voltage type for actuating</td><td></td><td>AC</td></t<>	Voltage type for actuating		AC
Rated power, \$40 V, \$0 Pt, 3-phase	Rated operation power at AC-3, 230 V, 3-phase	kW	3
Rated power, 51 b', 16 b'Hz, -3 hase         AU         12           Rated operation current le AC-3,400 V         A         12           Overfood release current setting         A         3 - 12           Rated conditional short-circuit current, ype 1,600 V/347 V         A         0           Rated conditional short-circuit current, ype 2,200 V         A         0           Rated conditional short-circuit current, ype 2,200 V         A         0           Rated conditional short-circuit current, ype 2,200 V         A         0           Number of auxiliary contracts as normally open contact         V         0           Number of auxiliary contracts as normally open contact         V         0           Ambient temperature, upper operating limit         C         0           Temperature compensated overbad protection         V         0           Temperature compensated overbad protection         V         0           Type of electrical connection of main circuit         V         0           Type of electrical connection for auxiliary- and control current circuit         V         0           Vibrate for emergency stop         V         0         0           Vibrate for emergency stop         V         0         0           Vibrate for indicator lights         V	Rated operation power at AC-3, 400 V	kW	7.5
Rated opporation current le         Au         12           Rated opporation current actAC, 400 V         A         12           Overfoad release current actAC, 400 V         A         0           Rated conditional short-circuit current, yee 1, 480 Y277 V         A         0           Rated conditional short-circuit current, yee 1, 800 Y347 V         A         0           Rated conditional short-circuit current, yee 2, 230 V         A         0           Number of auxiliary contacts as normally open contact         A         0           Number of auxiliary contacts as normally closed contact         Y         6           Anhibest emperature, upper operating limit         Y         Y           Release class         Y         Y           Release clastification decident for auxiliary	Rated power, 460 V, 60 Hz, 3-phase	kW	5.52
Rated operation current at AC-3,400 V         A         12           Overload criesase current setting         A         3 - 12           Rated conditional short-circuit current. Lybe 1,480 Y/27 V         A         0           Rated conditional short-circuit current. Lybe 2,200 V         A         0           Rated conditional short-circuit current. Lybe 2,400 V         A         0           Number of availilary contacts as normally open contact         I         0           Number of availilary contacts as normally open contact         V         VS           Relates conditional short-circuit current. Lybe 2,200 V         V         0           Number of availilary contacts as normally open contact         V         0           Number of availilary contacts as normally open contact         V         VS           Relational connection of main circuit         V         VS           Type of electrical connection of main circuit         V         VS           Type of electrical connection for availiary- and control current circuit         V         VS           With transformer         V         VS           No Command positions         V         VS           Suitable of emergency stop         V         N           Contination class according to IEC0897+3         V         N     <	Rated power, 575 V, 60 Hz, 3-phase	kW	0
Overload release current setting         A         3 - 12           Rated conditional short-circuit current. type 1,480 Y237 Y         A         0           Rated conditional short-circuit current. type 2,280 Y         A         0           Rated conditional short-circuit current. type 2,280 Y         A         0           Rated conditional short-circuit current. type 2,280 Y         A         0           Number of auxiliary contacts as normally open cented.         B         0           Ambient demonstrates as normally open cented.         B         0           Ambient demonstrate as normally closed contact.         B         0           Release class         B         0         0           Temperature, upper operating limit         B         0         0           Temperature compensated overload protection         B         0         0           Release class         B         Crew connection         0           Type of electrical connection for auxiliary- and central current circuit         B         0         0           With thandromer         B         0         0         0           With thandromer         B         0         0         0           Coord-matching to lice Setting to the contral temperature of the contraction of the contraction of the contra	Rated operation current le	А	12
Rated conditional short-circuit current, type 1,400 //377 V         A         0           Rated conditional short-circuit current, type 1,600 //377 V         A         0           Rated conditional short-circuit current, type 2,400 V         A         0           Runder of auxiliary contacts as normally spen contact         B         0         0           Number of auxiliary contacts as normally spen contact         C         0         0           Ambient temperature, upper operating limit         C         0         0           Rolesse class         C         4         4           Rolesse class         C         6         4           Rolesse class         C         6         4           Role contribution later of maxiliary and control current circuit         C         7         8           Roll mounting possible         P         8         9           Suitable for emergency stop         C         0         0           Conditation class as according to IEC 69947-43         C         1         0           Condination class as	Rated operation current at AC-3, 400 V	А	12
Rated conditional short-circuit current, ype 2,600 y 84	Overload release current setting	А	3 - 12
Rated conditional short-circuit current, type 2, 200 V         A         A         0           Rated conditional short-circuit current, type 2, 400 V         A         0           Number of auxiliary contacts as normally open contact         C         0           Ambient change rature, upper operating limit         C         0           Temperature compensated overload protection         C         4           Release class         C         4         Adjustable           Type of electrical connection of main circuit         C         5         Corew connection           Type of electrical connection for auxiliary- and control current circuit         C         9         Corew connection           Rail mounting possible         C         Y         Y         Y           With transformer         C         Y         Y         Y           With transformer         C         Y         Y         Y           Cordination class according to IEC 66947-4-3         C         Y         Y           Number of protection IIP         C         Y         Y           External reset possible         C         Y         Y           Supporting protection IVEMA         C         Y         Y           Supporting protection IVEMA <t< td=""><td>Rated conditional short-circuit current, type 1, 480 Y/277 V</td><td>А</td><td>0</td></t<>	Rated conditional short-circuit current, type 1, 480 Y/277 V	А	0
Rate de conditional short-circuit current, type 2,400 V         A         0           Number of auxiliary contacts as normally closed contact         1         1           Number of auxiliary contacts as normally closed contact         0         0           Ambient temperature, upper operating limits         0         0           Temperature compensated overload protection         0         0           Release class         0         0           Type of electrical connection of main circuit         0         0           Type of electrical connection for auxiliary- and control current circuit         0         0           All il invanting possible         0         0           With transformer         0         0           Number of command positions         0         0           Suitable for emergency stop         0         0           Conditination class according to LEC 6994-4-3         0         0           Number of indicator lights         0         0         0           External reset possible         0         0         0           Repaired protection (IP)         0         0         0           Supporting protection (IP)         0         0         0           Supporting protection (IP)         0	Rated conditional short-circuit current, type 1, 600 Y/347 V	А	0
Number of auxiliary contacts as normally closed contact         1           Number of auxiliary contacts as normally closed contact         0           Ambient temperature, upper operating limit         °C         0           Temperature compensated overload protection         8         9           Release class         Adjustable         Adjustable           Type of electrical connection of main circuit         Crew connection         Crew connection           Fall mounting possible         4         9           Bail mounting possible         9         9           With transformer         9         9           Number of command positions         9         9           Suitable for emergency stop         9         10           Coordination class according to IEC 60947-4-3         10         10           Number of indicator lights         9         10         10           External reset possible         10         10         10           Upper protection (IPM         10         10         10           Upper protection (IPMA)         10         10         10           Supporting protectool for TCP/IP         10         10         10           Supporting protectool for MOBUS         10         10         1	Rated conditional short-circuit current, type 2, 230 V	Α	0
Number of auxiliary contacts as normally closed contact         C         60           Ambient temperature, upper operating limit         °C         60           Temperature compensated overload protection         C         70           Release class         Adjustable           Type of electrical connection of main circuit         Screw connection           Type of electrical connection for auxiliary- and control current circuit         Screw connection           Rail mounting possible         Yes           With transformer         No           Number of command positions         O           Strabel for emergency stop         O           Coordination class according to IEC 69947-4-3         O           Number of indicator lights         O           Extransl reset possible         No           With fuse         O           Degree of protection (IP         PO           Degree of protection (IPS)         No           Supporting protectof for TCP/IP         No           Supporting protection PROFIBUS         No           Supporting protection For ROFIBUS         No	Rated conditional short-circuit current, type 2, 400 V	А	0
Ambient temperature, upper operating limit         *C         80           Temperature compensated overload protection         4         49           Release class         Adjustable         Adjustable           Type of electrical connection of main circuit         5 crew connection           Type of electrical connection for auxiliary- and control current circuit         6 crew connection           Rail mounting possible         7 crew connection           With transformer         8 crew connection           Number of command positions         0           Suitable for emergency stop         0           Coordination class according to EC 69947-4.3         1 crew connection           Number of indicator lights         0           External reset possible         No           With fuse         1 crew connection           Degree of protection (IP)         1 crew connection           Degree of protection (IP)         1 crew connection           Supporting protocol for TCP/IP         No           Supporting protocol for PROFIBUS         No           Supporting protocol for ASI         No           Supporting protocol for ASI         No           Supporting protocol for DeviceNet         No           Supporting protocol for DeviceNet         No	Number of auxiliary contacts as normally open contact		1
Temperature compensated overload protection         Yes           Release class         Adjustable           Type of electrical connection of main circuit         Screw connection           Type of electrical connection for auxiliary- and control current circuit         Screw connection           Rail mounting possible         Yes           With transformer         No           Number of command positions         0           Suitable for emergency stop         No           Coordination class according to IEC 60947-4-3         Class 2           Number of indicator lights         0           With fuse         No           Village         No           Degree of protection (IP)         No           Degree of protection (IP)         P20           Supporting protocol for TCP/IP         No           Supporting protocol for PROFIBUS         No           Supporting protocol for PROFIBUS         No           Supporting protocol for ASI         No           Supporting protocol for PROFIBUS         No           Supporting protocol for PROFIBUS         No           Supporting protocol for Data-Highway         No           Supporting protocol for Data-Highway         No           Supporting protocol for Data-Highway         No </td <td>Number of auxiliary contacts as normally closed contact</td> <td></td> <td>0</td>	Number of auxiliary contacts as normally closed contact		0
Release class         Adjustable           Type of electrical connection of main circuit         Screw connection           Type of electrical connection for auxiliary- and control current circuit         Screw connection           Rail mounting possible         Yes           With transformer         No           Number of command positions         0           Stutable for emergency stop         No           Coordination class according to IEC 60947-43         Class 2           Number of indicator lights         0           External reset possible         No           With fuse         No           Degree of protection (IP)         Degree of protection (IEP)           Degree of protection (NEMA)         No           Supporting protocol for TCP/IP         No           Supporting protocol for PROFIBUS         No           Supporting protocol for PROFIBUS         No           Supporting protocol for DROBUS         No           Supporting protocol for Data-Highway         No           Supporting protocol for Data-Highway         No           Supporting protocol for Data-Highway	Ambient temperature, upper operating limit	°C	60
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  Number of indicator lights  External roset possible  With fuse  Degree of protection (IP)  Degree of protection (IPP)  Degree of protection (IPSPIP)  Supporting protocol for PROFIBUS  Supporting protocol for Data-Highway  Supporting protocol for Data-Highway  Supporting protocol for Data-Highway  Supporting protocol for DSUCONET  Supporting protocol for LONG  Supporting protocol for DSUCONET  Supporting protocol for LONG  Supporting protocol for LONG  Supporting protocol for LONG  Supporting protocol for LONG  Supporting protocol for DSUCONET  Supporting protocol for LONG  Supporting protocol for LONG  Supporting protocol for LONG  Supporting protocol for LONG  Supporting protocol for DSUCONET  Supporting protocol for LONG  Supporting protocol for DSUCONET  Supporting protocol for LONG  Supporting protocol for PROFINET LOSA  Suppor	Temperature compensated overload protection		Yes
Type of electrical connection for auxiliary- and control current circuit         Screw connection           Rail mounting possible         Yes           With transformer         No           Number of command positions         0           Suitable for emergency stop         No           Coordination class according to IEC 69947-4-3         Class 2           Number of indicator lights         0           External reset possible         No           With fuses         No           Degree of protection (IP)         No           Degree of protection (IPP)         Pi20           Supporting protocol for TCP/IP         No           Supporting protocol for PROFIBUS         No           Supporting protocol for CAN         No           Supporting protocol for ASI         No           Supporting protocol for INTERBUS         No           Supporting protocol for Data-Highway         No           Supporting protocol for Data-Highway         No           Supporting protocol for DeviceNet         No           Supporting protocol for DeviceNet         No           Supporting protocol for DeviceNet         No           Supporting protocol for PROFINET IO         No           Supporting protocol for PROFINET IO         No      <	Release class		Adjustable
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 fuses  Degree of protection (IP)  Degree of protection (NEMA)  Supporting protocol for TCP/IP  Supporting protocol for PROFIBUS  Supporting protocol for QAS  Supporting protocol for ASI  Supporting protocol for MOBUS  Supporting protocol for MOBUS  Supporting protocol for Description  Supporting protocol for MOBUS  Supporting protocol for Description  Supporting protocol for PROFINET IO  Supporting protocol for PROFINET IO  No  No  No  No  No  No  No  No  No  N	Type of electrical connection of main circuit		Screw connection
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 TREBUS Supporting protocol for INTERBUS Supporting protocol for INTERBUS Supporting protocol for MODBUS Supporting protocol for Bat-Highway Supporting protocol for DeviceNet Supporting protocol for POFINET CBA Supporting POFINET CB	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  External reset possible  With fuse  Degree of protection (IP)  Degree of protection (NEMA)  Supporting protocol for TCP/IP  Supporting protocol for PROFIBUS  Supporting protocol for NERBUS  Supporting protocol for MDBUS  Supporting protocol for ASI  Supporting protocol for Data-Highway  Supporting protocol for DeviceNet  Supporting protocol for DeviceNet  Supporting protocol for DeviceNet  Supporting protocol for SUCONET  Supporting protocol for SUCONET  Supporting protocol for PROFINET IO  Supporting protocol for PROFINET IO  Supporting protocol for PROFINET IO  Supporting protocol for PROFINET ICBA  Supporting protoc	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 Degree of protection (IP) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for AN Supporting protocol for INTERBUS Supporting protocol for MDBUS Supporting protocol for Data-Highway Supporting protocol for Data-Highway Supporting protocol for DeviceNet Supporting protocol for DeviceNet Supporting protocol for SUCONET Supporting protocol for SUCONET Supporting protocol for SUCONET Supporting protocol for PROFINET IO Supporting protocol for PROFINET ICBA Supporting protocol for PROFINET IC	With transformer		No
Coordination class according to IEC 60947-4-3 Number of indicator lights External reset possible With fuse Degree of protection (IP) No Degree of protection (NEMA) Degree of protection (NEMA) Supporting protocol for TCP/IP Supporting protocol for PROFIBUS Supporting protocol for ASI Supporting protocol for NITERBUS Supporting protocol for MODBUS Supporting protocol for Data-Highway Supporting protocol for DeviceNet Supporting protocol for SUCONET Supporting protocol for SUCONET Supporting protocol for PROFINET OS Supporting protocol for PROFINET CBA Supporting protocol	Number of command positions		0
Number of indicator lights  External reset possible  With fuse  Degree of protection (IP)  Degree of protection (NEMA)  Supporting protecol for TCP/IP  Supporting protecol for PROFIBUS  Supporting protecol for CAN  Supporting protecol for INTERBUS  Supporting protecol for ASI  Supporting protecol for MDBUS  Supporting protecol for MDBUS  Supporting protecol for Data-Highway  Supporting protecol for Busile  Supporting protecol for Data-Highway  Supporting protecol for Busile  Supporting protecol for Suconet  Supporting protecol for PROFINET IO  Supporting protecol for PROFINET IO  Supporting protecol for PROFINET IO  Supporting protecol for PROFINET CBA	Suitable for emergency stop		No
External reset possible  With fuse  No  Degree of protection (IP)  Degree of protection (NEMA)  Supporting protocol for TCP/IP  Supporting protocol for PROFIBUS  No  Supporting protocol for CAN  Supporting protocol for INTERBUS  Supporting protocol for INTERBUS  Supporting protocol for ASI  Supporting protocol for MODBUS  Supporting protocol for MODBUS  Supporting protocol for Data-Highway  Supporting protocol for Data-Highway  Supporting protocol for SUCONET  Supporting protocol for SUCONET  Supporting protocol for LON  Supporting protocol for PROFINET IO  Supporting protocol for PROFINET IO  Supporting protocol for PROFINET CBA  No  Supporting protocol for PROFINET CBA	Coordination class according to IEC 60947-4-3		Class 2
With fuse No Degree of protection (IP) IP20 Degree of protection (NEMA) Other Supporting protocol for TCP/IP No Supporting protocol for PROFIBUS No Supporting protocol for CAN No Supporting protocol for INTERBUS 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 Data-Highway No Supporting protocol for DeviceNet No Supporting protocol for SUCONET No Supporting protocol for PROFINET IO No Supporting protocol for PROFINET IO No	Number of indicator lights		0
Degree of protection (IP)  Degree of protection (NEMA)  Supporting protocol for TCP/IP  No  Supporting protocol for PROFIBUS  Supporting protocol for CAN  Supporting protocol for INTERBUS  Supporting protocol for INTERBUS  No  Supporting protocol for ASI  Supporting protocol for MODBUS  Supporting protocol for MODBUS  Supporting protocol for Data-Highway  No  Supporting protocol for DeviceNet  Supporting protocol for SUCONET  Supporting protocol for SUCONET  Supporting protocol for PROFINET IO  Supporting protocol for PROFINET CBA  No  Supporting protocol for PROFINET CBA	External reset possible		No
Degree of protection (NEMA)  Supporting protocol for TCP/IP  Supporting protocol for PROFIBUS  Supporting protocol for CAN  Supporting protocol for INTERBUS  Supporting protocol for INTERBUS  Supporting protocol for ASI  Supporting protocol for MODBUS  Supporting protocol for MODBUS  Supporting protocol for Data-Highway  Supporting protocol for DeviceNet  Supporting protocol for SUCONET  Supporting protocol for PROFINET IO  Supporting protocol for PROFINET IO  Supporting protocol for PROFINET IO  No  Supporting protocol for PROFINET CBA  Other  No  Other  No  Other  No  No  Other  No  Ot	With fuse		No
Supporting protocol for TCP/IP  Supporting protocol for PROFIBUS  No Supporting protocol for CAN  Supporting protocol for INTERBUS  No Supporting protocol for INTERBUS  No Supporting protocol for MODBUS  Supporting protocol for MODBUS  No Supporting protocol for Data-Highway  No Supporting protocol for DeviceNet  No Supporting protocol for SUCONET  No Supporting protocol for PROFINET IO  Supporting protocol for PROFINET OBA  No Supporting protocol for PROFINET OBA  No	Degree of protection (IP)		IP20
Supporting protocol for PROFIBUS  Supporting protocol for CAN  Supporting protocol for INTERBUS  No  Supporting protocol for ASI  Supporting protocol for MODBUS  Supporting protocol for Data-Highway  No  Supporting protocol for DeviceNet  Supporting protocol for SUCONET  No  Supporting protocol for PROFINET IO  Supporting protocol for PROFINET CBA  No  Supporting protocol for PROFINET CBA	Degree of protection (NEMA)		Other
Supporting protocol for CAN Supporting protocol for INTERBUS No Supporting protocol for ASI No Supporting protocol for MODBUS Supporting protocol for Data-Highway No Supporting protocol for DeviceNet No Supporting protocol for SUCONET No Supporting protocol for LON Supporting protocol for PROFINET IO Supporting protocol for PROFINET CBA No Supporting protocol for PROFINET CBA No	Supporting protocol for TCP/IP		No
Supporting protocol for INTERBUS  Supporting protocol for ASI  Supporting protocol for MODBUS  Supporting protocol for Data-Highway  No  Supporting protocol for DeviceNet  Supporting protocol for SUCONET  Supporting protocol for LON  Supporting protocol for PROFINET IO  Supporting protocol for PROFINET CBA  No  Supporting protocol for PROFINET CBA	Supporting protocol for PROFIBUS		No
Supporting protocol for ASI 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 Supporting protocol for PROFINET IO No Supporting protocol for PROFINET CBA No	Supporting protocol for CAN		No
Supporting protocol for MODBUS  Supporting protocol for Data-Highway  No  Supporting protocol for DeviceNet  No  Supporting protocol for SUCONET  No  Supporting protocol for LON  Supporting protocol for PROFINET IO  Supporting protocol for PROFINET CBA  No	Supporting protocol for INTERBUS		No
Supporting protocol for Data-Highway  No Supporting protocol for DeviceNet  No Supporting protocol for SUCONET  No Supporting protocol for LON  Supporting protocol for PROFINET IO  No Supporting protocol for PROFINET CBA  No	Supporting protocol for ASI		No
Supporting protocol for DeviceNet  No Supporting protocol for SUCONET  No Supporting protocol for LON  Supporting protocol for PROFINET IO  No Supporting protocol for PROFINET CBA  No	Supporting protocol for MODBUS		No
Supporting protocol for SUCONET  Supporting protocol for LON  Supporting protocol for PROFINET IO  Supporting protocol for PROFINET CBA  No			No
Supporting protocol for LON No Supporting protocol for PROFINET IO No Supporting protocol for PROFINET CBA No			
Supporting protocol for PROFINET IO  Supporting protocol for PROFINET CBA  No			
Supporting protocol for PROFINET CBA No	Supporting protocol for LON		No
Supporting protocol for SERCOS No			
	Supporting protocol for SERCOS		No

Supporting protocol for Foundation Fieldbus		No
Capporting protocor for roundation ricianas		110
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	nm 45
Height	mm	nm 272
Depth	mm	nm 145

# Approvals

Product Standards	UL60947-4-1A; CSA-C22.2 No. 14-10; IEC60947-4-1; CE marking
UL File No.	E123500
UL Category Control No.	NKJH
CSA File No.	12528
CSA Class No.	3211-08
North America Certification	UL listed, CSA certified
Specially designed for North America	Yes

## **Dimensions**

