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Networkable hybrid motor starter for reversing 3~ AC motors up to 500 V AC and 9 A output current, with adjustable overload shutdown, emergency stop function up to SIL 3/PL e, and Push-in connection. Connection to IO-Link.



Key Commercial Data

Packing unit	1
GTIN	4 055626 321257
GTIN	4055626321257
Custom tariff number	85371098

Technical data

Device supply

Rated control circuit supply voltage U _S	24 V DC
Control supply voltage range	19.2 V DC 30 V DC
Rated control supply current I _S	65 mA
Type of protection	Surge protection
	Reverse polarity protection

Input data

Input name	Enable input
Rated actuating voltage U _C	24 V DC
Triggering voltage range	19.2 V DC 30 V DC
Rated actuating current I _C	7 mA
Switching threshold	9.6 V ("0" signal)
	19.2 V ("1" signal)



Technical data

Input data

Switching level	< 5 V DC (For EMERGENCY STOP)
Typical turn-off time	< 30 ms

Output data load output

Output name	AC output
Rated operating voltage U _e	500 V AC
Operating voltage range	42 V AC 550 V AC
Rated operating current I _e	9 A (AC-51)
	7 A (AC-53a)
Mains frequency	50/60 Hz
Load current range	1.5 A 9 A (see to derating)
Trigger characteristic in acc. with IEC 60947-4-2	Class 10A
Cooling time	20 min. (for auto reset)
Leakage current	0 mA
Type of protection	Surge protection

Overspeed tripping

Operate threshold	> 60 A
Response time	< 0.5 s

General

Switching frequency	≤ 2 Hz (Load-dependent)
Mounting position	vertical (horizontal DIN rail, motor output below)
Mounting type	DIN rail mounting
Assembly instructions	alignable, for spacing see derating
Operating mode	100% operating factor
Maximum power dissipation	7 W
Minimum power dissipation	0.88 W
Operating voltage display	Green LED
Status display	Yellow LED
Indication	Red LED

Connection data, input side

Connection name	Control circuits
Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section solid	0.2 mm ² 2.5 mm ²
Conductor cross section flexible	0.2 mm² 2.5 mm²
Conductor cross section AWG	24 14



Technical data

Connection data, output side

Connection name	Load circuit
Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section solid	0.2 mm² 2.5 mm²
Conductor cross section flexible	0.2 mm² 2.5 mm²
Conductor cross section AWG	24 14

Ambient conditions

Ambient temperature (operation)	-5 °C 55 °C (observe derating)
Ambient temperature (storage/transport)	-40 °C 80 °C
Degree of protection	IP20

Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

UL data

SCCR	100 kA (480 V AC (fuse: 30 A class CC/30 A class J (high fault)))
	5 kA (480 V AC (fuse: 20 A RK5 (standard fault)))
FLA	7.6 A (480 V AC)
Group installation	20 A (class RK5, SCCR 5kA (480 V AC), #24 - 14 AWG max. solid and stranded)
	30 A (class CC or J, SCCR 100kA (480 V AC), #24 - 14 AWG max, solid and stranded)
Category code	NLDX / NRNT
Horsepower ratings	2 hp (120 V AC / 208 V AC)
	5 hp (277 V AC / 480 V AC)

Insulation characteristics

Rated insulation voltage	550 V	
Rated surge voltage	6 kV	
Overvoltage category	III	
Degree of pollution	2	
Designation	Insulation characteristics between the control input and control supply voltage, and auxiliary circuit to the main circuit	
Insulation	Safe isolation (IEC 60947-1)	
Designation	Isolation characteristics between the control input and control supply voltage to auxiliary circuit	
Insulation	Safe isolation (IEC 60947-1) in the auxiliary circuit ≤ 300 V AC	
	Safe isolation (EN 50178) in the auxiliary circuit ≤ 300 V AC	



Technical data

Standards and Regulations

Designation	Standards/regulations	
Standards/regulations	IEC 60947-1	
	EN 60947-4-2	
	IEC 61508	
	ISO 13849	

Approvals/conformities

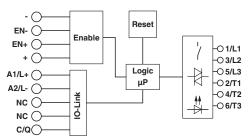
Safety Integrity Level according to IEC 61508	≤ 3 (Safe shutdown)
Category acc. to EN ISO 13849	≤ 3 (Safe shutdown)
Performance level according to ISO 13849	e (Safe shutdown)
UL certificate	NLDX.E228652
	NRNT.E172140

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50	
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"	

Drawings

Block diagram



Approvals

Approvals

Approvals

UL Listed / UL Listed / cUL Listed / cUL Listed / cULus Listed

Ex Approvals



Approvals

Approval details

UL Listed	U _L LISTED	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
UL Listed	UL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 228652
cUL Listed	C UL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
cUL Listed	C UL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 228652
cULus Listed	C UL US		

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