

Hybrid motor starter - ELR H5-IES-PT-SWD/500AC-3 - 2903934

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

The figure shows the 9 A version



Key Commercial Data

Packing unit	1
GTIN	 4 046356 771870
GTIN	4046356771870
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	60 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)

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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	3 A (AC-51)
	3 A (AC-53a)
Mains frequency	50/60 Hz
Load current range	180 mA ... 3 A (see to derating)
Trigger characteristic in acc. with IEC 60947-4-2	Class 10
Cooling time	20 min. (for auto reset)
Leakage current	0 mA
Type of protection	Surge protection

Overspeed tripping

Operate threshold	> 33 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	4.1 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 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 14

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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 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
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	3 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	0.5 hp (120 V AC / 208 V AC)
	1.5 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

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Technical data

Standards and Regulations

Designation	Standards/regulations
Standards/regulations	IEC 60947-1
	EN 60947-4-2
	IEC 61508
	ISO 13849
ATEX	# II (2) G [Ex e] [Ex d] [Ex px]
	# II (2) D [Ex tj] [Ex p]

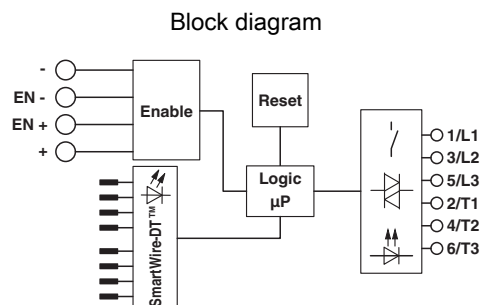
Approvals/conformities

Safety Integrity Level according to IEC 61508	≤ 3 (Safe shutdown)
	2 (Motor protection)
Category acc. to EN ISO 13849	≤ 3 (Safe shutdown)
Performance level according to ISO 13849	e (Safe shutdown)
ATEX	# II (2) G [Ex e] [Ex d] [Ex px]
	# II (2) D [Ex tj] [Ex p]
EU-type examination certificate	PTB 15 ATEX 3001
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



Classifications

eCl@ss

eCl@ss 5.0	27024002
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Classifications

eCl@ss

eCl@ss 5.1	27024002
eCl@ss 6.0	27024002
eCl@ss 7.0	27024002
eCl@ss 8.0	27024002
eCl@ss 9.0	27024002

ETIM

ETIM 2.0	EC001037
ETIM 3.0	EC001037
ETIM 4.0	EC001037
ETIM 5.0	EC001037
ETIM 6.0	EC001037

UNSPSC

UNSPSC 6.01	30211915
UNSPSC 7.0901	39121514
UNSPSC 11	39121514
UNSPSC 12.01	39121514
UNSPSC 13.2	25173902

Approvals

Approvals

Approvals

UL Listed / UL Listed / cUL Listed / cUL Listed / IECCE CB Scheme / cULus Listed

Ex Approvals

Approval details

UL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 172140

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Approvals

UL Listed		http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm	FILE E 228652
cUL Listed		http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm	FILE E 228652
cUL Listed		http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm	FILE E 172140
IECEE CB Scheme		http://www.iecee.org/	DE1-56581
cULus Listed			

Accessories

Accessories

Assembly tool

Tool - SWD4-CRP-1 PXC - 2903110



SmartWire DT™ pliers for device plugs

Tool - SWD4-CRP-2 PXC - 2903114



SmartWire DT™ pliers for flat plug

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Accessories

Cover

Covering hood - BRIDGE COVER - 2906240



The BRIDGE COVER covering hood is used to cover unused plugs on the CONTACTRON bridge that may subsequently be used to extend the system. The hood can be used with the screw and Push-in version of the bridge.

Data cable by the meter

Cable - SWD4-3LF8-24-2S PXC - 2903112



SmartWire DT™ 3 m flat-ribbon conductor, assembled with 2 flat plugs, 8-pos.

Cable - SWD4-100LF-8-24 PXC - 2903111



SmartWire DT™ 100 m flat-ribbon conductor, 8-pos.

Device marking

Plastic label - US-EMLP (15X5) - 0828790



Plastic label, Card, white, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, Mounting type: Adhesive, Lettering field: 15 x 5 mm

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Accessories

Plastic label - UC-EMLP (15X5) - 0819301



Plastic label, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, Mounting type: Adhesive, Lettering field: 15 x 5 mm

Extension module

Input/output module - EU5E-SWD-4D4D PXC - 2903101



SmartWire DT™ digital module for connecting digital input/output signals, 4 inputs (24 V DC) and 4 outputs (24 V DC/0.5 A).

Input module - EU5E-SWD-4DX PXC - 2903102



SmartWire DT™ digital module for connecting digital input signals, 4 inputs (24 V DC, 3-wire connection).

Output module - EU5E-SWD-X8D PXC - 2903103



SmartWire DT™ digital module for connecting digital output signals, 8 outputs (24 V DC/0.5 A).

Input/output module - EU5E-SWD-2A2A PXC - 2903104



SmartWire DT™ analog module for connecting analog input/output signals, 2 inputs (0 - 10 V, 0 - 20 mA) and 2 outputs (0 - 10 V, 0 - 20 mA, can be configured individually).

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Accessories

Gateways/Proxies

Data interface - EU5C-SWD-CAN PXC - 2903098



SmartWire DT™ gateway for connecting to CANopen® as slave, automatic baud rate detection: 10 kbps to 1 Mbps, connection of up to 99 SmartWire DT™ devices.

Data interface - EU5C-SWD-DP PXC - 2903100



SmartWire-DT™ gateway for connecting to PROFIBUS DP as a slave, automatic baud rate detection: 9.6 kbps to 12 Mbps, connection of up to 58 SmartWire-DT™ devices.

Data interface - EU5C-SWD-EIP-MODTCP PXC - 2903244



SmartWire DT™ gateway for connecting to Ethernet IP or Modbus/TCP, address setting via DIP switches or DHCP, connection of up to 99 SmartWire DT™ devices.

Loop bridge

Jumper - BRIDGE-PT 2 - 2904490



3-phase loop bridge for 2 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

Jumper - BRIDGE-PT 3 - 2904491



3-phase loop bridge for 3 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

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Accessories

Jumper - BRIDGE-PT 4 - 2904492



3-phase loop bridge for 4 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

Jumper - BRIDGE-PT 5 - 2904493



3-phase loop bridge for 5 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

Jumper - BRIDGE-PT 6 - 2904494



3-phase loop bridge for 6 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

Jumper - BRIDGE-PT 7 - 2904495



3-phase loop bridge for 7 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

Jumper - BRIDGE-PT 8 - 2904496



3-phase loop bridge for 8 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

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Accessories

Jumper - BRIDGE-PT 9 - 2904497



3-phase loop bridge for 9 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

Jumper - BRIDGE-PT 10 - 2904498



3-phase loop bridge for 10 CONTACTRON modules, with push-in connection and 22.5 mm housing width, connecting cable: 3 m, with ferrules included.

Mounting material

Plug - SWD4-RC8-10 PXC - 2903106



SmartWire DT™ bus termination plug

Plug - SWD4-8SF2-5 PXC - 2903107



SmartWire DT™ device plug, 8-pos.

Plug - SWD4-8MF2 PXC - 2903108



SmartWire DT™ flat plug, 8-pos.

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Accessories

Plug - SWD4-8SFF2-5 PXC - 2903109



SmartWire DT™ coupling for 8-pos. flat plug

Power module

Power supply unit - EU5C-SWD-PF2-1 PXC - 2903113



SmartWire DT™ power feed module for supplying further SmartWire DT™ devices.