ELR-H51-0,6-BUSBAR-CLASSIC-SET - Hybrid motor starter

2904334

https://www.phoenixcontact.com/us/products/2904334

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Complete package consisting of ELR H51-IESSC-24DC500AC-06 and EM RI-ADAPTER CLASSIC for mounting on 60 mm busbar

Your advantages

- 22.5 mm wide
- Safety level in accordance with IEC 61508-1: SIL 3, ISO 13849: PL e
- Reduction in wiring
- Space saving
- Long service life
- Adjustable current for bimetal function
- Low-wear switching

Commercial data

Item number	2904334
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	CK7452
Catalog page	Page 37 (C-5-2019)
GTIN	4046356802406
Weight per piece (including packing)	486 g
Weight per piece (excluding packing)	350 g
Country of origin	DE

Set consists of

ELR H51-IESSC-24DC500AC-06 - Hybrid motor starter

2902746

https://www.phoenixcontact.com/us/products/2902746

Short-circuit-proof hybrid motor starter for reversing 3~ AC motors up to 550 V AC, with 24 V DC input, 0.6 A output current, emergency stop function, and adjustable overload shutdown. Can only be used with EM-RD and EM-RI adapters or power distribution board.

EM RI-ADAPTER CLASSIC - Adapter

2902831

https://www.phoenixcontact.com/us/products/2902831

Adapter for mounting short-circuit proof hybrid motor starters of type ELR-H51 ... on 60 mm power busbars. Classic design with 200 mm design height.

FUSE-10X38-16A-GR - Fuse

2903126

https://www.phoenixcontact.com/us/products/2903126

Fuse, number: 10 Pcs., fuse type: Fuse (CC), nominal current: 16 A, tripping characteristic: super-fast blow (gR)

Technical data

Product properties

Product type	Hybrid motor starters
Product family	CONTACTRON
Operating mode	100% operating factor

Electrical properties

Number of phases	3
Motor starter type	Reversing starter
Maximum power dissipation for nominal condition	1.7 W
Switching frequency	≤ 2 Hz (Load-dependent)
Maximum power dissipation	2.5 W
Minimum power dissipation	0.88 W
Coordination type	2

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	40 mA
Protective circuit	Surge protection
	Reverse polarity protection; Parallel polarity protection diode

Insulation characteristics

Rated insulation voltage	500 V
Rated surge voltage	6 kV
Overvoltage category	III
Degree of pollution	2
Insulation characteristics between the control input and control supply voltage, and auxiliary circuit to the main circuit	Safe isolation (IEC 60947-1) at operating voltage ≤ 300 V AC
	Safe isolation (EN 50178) at operating voltage ≤ 300 V AC
	Basic insulation (IEC 60947-1) at operating voltage 300 V AC ... 500 V AC
	Safe isolation (EN 50178) at operating voltage 300 ... 500 V AC
Isolation characteristics between the control input and control supply voltage to auxiliary circuit	Safe isolation (IEC 60947-1) in the auxiliary circuit ≤ 300 V AC
	Safe isolation (EN 50178) in the auxiliary circuit ≤ 300 V AC

Input data

Control

Input name	Control input right/left
Rated actuating voltage U_C	24 V DC
Triggering voltage range	19.2 V DC ... 30 V DC
Rated actuating current I_C	5 mA
Switching threshold	9.6 V (“0” signal)
	19.2 V (“1” signal)

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

Output data

AC output

Rated operating voltage U_e	500 V AC
Operating voltage range	42 V AC ... 550 V AC
Mains frequency	50/60 Hz
Load current range	75 mA ... 600 mA
Trigger characteristic in acc. with IEC 60947-4-2	Class 10A
Cooling time	20 min. (for auto reset)
Leakage current	0 mA
Protective circuit	Surge protection; Varistor
	Short-circuit protection; Fuse

Acknowledge output

Note	Confirmation: floating change-over contact, signal contact
Contact switching type	1 changeover contact
Switching capacity in accordance with IEC 60947-5-1	3 A (230 V, AC15)
	2 A (24 V, DC13)

Connection data

Control circuits

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	0.2 mm² ... 2.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 14
Tightening torque	0.5 Nm ... 0.6 Nm
	5 lb_f-in. ... 7 lb_f-in.

Load circuit

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	0.2 mm² ... 2.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 14
Tightening torque	0.5 Nm ... 0.6 Nm
	5 lb_f-in. ... 7 lb_f-in.

Signaling

Status display	Yellow LED

Operating voltage display	Green LED
Error indication	Red LED

Material specifications

Flammability rating according to UL 94	V0 (Housing)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 70 °C (observe derating)
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m

Approvals

ATEX

Identification	Ⓔx II (2) G [Ex e] [Ex d] [Ex px]
	Ⓔx II (2) D [Ex t] [Ex p]
Certificate	PTB 07 ATEX 3145

UL approval

Certificate	NLDX.E228652

Safety Integrity Level (SIL, IEC 61508)

Identification	≤ 3
Note	Safe shutdown

Safety Integrity Level (SIL, IEC 61508)

Identification	2
Note	Motor protection

Performance Level (ISO 13849)

Identification	e
Note	Safe shutdown

Category (ISO 13849)

Identification	3
Note	Safe shutdown

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	0.6 A (480 V AC)
Group installation	20 A (class RK5, SCCR 5kA, #24 - 14 AWG max. solid and stranded)
	30 A (class CC or J, SCCR 100kA, #24 - 14 AWG max, solid and stranded)
Category code	NLDX / NRNT

Standards and regulations

Standards/regulations

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

Mounting

Mounting type	Bus bar mounting
	DIN rail mounting
Assembly note	alignable, for spacing see derating
Mounting position	vertical (horizontal DIN rail, motor output below)

Classifications

ECLASS

ECLASS-11.0	27370905

UNSPSC

UNSPSC 21.0	25173902

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)

Accessories

FUSE-10X38-30A-MR - Fuse

2903119

https://www.phoenixcontact.com/us/products/2903119

Fuse, number: 10 Pcs., fuse type: Fuse (CC), nominal current: 30 A, tripping characteristic: fast-blow (F)

FUSE-10X38-20A-GR - Fuse

2903384

https://www.phoenixcontact.com/us/products/2903384

Fuse, number: 10 Pcs., fuse type: Fuse (CC), nominal current: 20 A, tripping characteristic: super-fast blow (gR)

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com