



**Automatización Eléctrica**  
Especialistas en Automatización

At the end of this document you will find links to products related to this catalog. You can go directly to our shop by clicking [HERE](#). [HERE](#)

# Hybrid motor starter - ELR-H51-0,6-BUSBAR-COMPACT-SET - 2904333

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



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

The figure shows the ELR-H51-2,4-BUSBAR-COMPACT-SET version

## Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 802390

## Technical data

### Ambient conditions

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

### 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 $I_s$	40 mA
Protective circuit	Protection against polarity reversal Parallel polarity protection diode
	Surge protection

### Input data

Input name	Control input right/left
Rated actuating voltage $U_c$	24 V DC
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 load output

# Hybrid motor starter - ELR-H51-0,6-BUSBAR-COMPACT-SET - 2904333

## Technical data

### 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
Mains frequency	50 Hz
	60 Hz
Load current range	75 mA ... 0.6 A
Trigger characteristic in acc. with IEC 60947	Class 10A
Cooling time	20 min. (for auto reset)
Leakage current	0 mA
Protective circuit	Surge protection Varistor
	Short-circuit protection Fuse

### Output data reply output

Output name	Acknowledge output
Note	Confirmation: floating change-over contact, signal contact
Contact type	1 PDT
Switching capacity according to IEC 60947-5-1	3 A (230 V, AC15)
	2 A (24 V, DC13)

### General

Switching frequency	$\leq 2$ Hz (Load-dependent)
Mounting position	vertical (horizontal DIN rail, motor output below)
Assembly instructions	alignable, for spacing see derating
Operating mode	100% operating factor
Maximum power dissipation	2.5 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	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 14
Torque	0.5 Nm ... 0.6 Nm

### Connection data, output side

Connection name	Load circuit
Connection method	Screw connection

# Hybrid motor starter - ELR-H51-0,6-BUSBAR-COMPACT-SET - 2904333

## Technical data

### Connection data, output side

Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 14
Torque	0.5 Nm ... 0.6 Nm

### Standards/regulations

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

### Insulation characteristics

Rated insulation voltage	500 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) at operating voltage ≤ 300 V AC
	Safe isolation (EN 50178) at operating voltage ≤ 300 V AC
	Basic isolation (IEC 60947-1) at operating voltage 300 ... 500 V AC
	Safe isolation (EN 50178) at operating voltage 300 ... 500 V AC
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

### Approvals/conformities

Safety Integrity Level according to IEC 61508	SIL 3 (safe shutdown)
	SIL 2 (motor protection)
Category acc. to EN ISO 13849	3 (Safe shutdown)
Performance level according to ISO 13849	e (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

# Hybrid motor starter - ELR-H51-0,6-BUSBAR-COMPACT-SET - 2904333

## Technical data

### Standards and Regulations

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

## Articles in set

Hybrid motor starter - ELR H51-IESSC-24DC500AC-06 - 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 or EM-RI adapter.

Adapter - EM RI-ADAPTER COMPACT - 2902748



Adapter for mounting short circuit-proof hybrid motor starters of type ELR-H51 ... on 60 mm power busbars. Compact design with 160 mm design height.

## Classifications

### eCl@ss

eCl@ss 4.0	27142001
eCl@ss 4.1	27142001
eCl@ss 5.0	27142001
eCl@ss 5.1	27371601
eCl@ss 6.0	27371601
eCl@ss 7.0	27371601
eCl@ss 8.0	27370905

### ETIM

ETIM 3.0	EC000035
ETIM 4.0	EC001437
ETIM 5.0	EC002055

### UNSPSC

UNSPSC 6.01	30211915
UNSPSC 7.0901	39121514

# Hybrid motor starter - ELR-H51-0,6-BUSBAR-COMPACT-SET - 2904333

## Classifications

### UNSPSC

UNSPSC 11	39121514
UNSPSC 12.01	39121514
UNSPSC 13.2	39121514

## Approvals

### Approvals

---

#### Approvals

UL Listed / cUL Listed / cULus Listed

---

#### Ex Approvals


ATEX


---


#### Approvals submitted

---

## Approval details

UL Listed 

cUL Listed 

cULus Listed 

---

Phoenix Contact 2016 © - all rights reserved  
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>



Below is a list of articles with direct links to our shop Electric Automation Network where you can see:

- Quote per purchase volume in real time.
- Online documentation and datasheets of all products.
- Estimated delivery time enquiry in real time.
- Logistics systems for the shipment of materials almost anywhere in the world.
- Purchasing management, order record and tracking of shipments.

To access the product, [click on the green button.](#)

Product	Code	Reference	Product link
Complete package consisting of ELR H51-IESSC-24DC500AC-06 and EM RI-ADAPTER COMPACT for mounting on 60 mm busbar	2904333	ELR-H51-0,6-BUSBAR-COMPACT-SET	<a href="#">Buy on EAN</a>