

## Hybrid motor starter - ELR H3-IES-PT-24DC/500AC-9-T - 2906064

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>)



Hybrid motor starter for starting 3~ AC motors up to 550 V AC, with 24 V DC input, 9 A output current, emergency stop function, adjustable overload shutdown, higher transient voltage strength, and push-in connection.

The figure shows the ELR H3-IES-PT- 24DC/500AC-9 version

### Product Features



### Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	280.0 GRM
Custom tariff number	85371099
Country of origin	Germany

### Technical data

#### Input data

Input name	Device supply
Rated control supply voltage $U_s$	24 V DC (According to IEC 60947-1)
Voltage range with reference to $U_s$	0.8 ... 1.25
Rated control supply current $I_s$	$\leq 40$ mA
Protective circuit	Protection against polarity reversal
	Surge protection
Operating voltage display	Green LED
Status display	Yellow LED
Indication	Red LED
Input name	Control input
Rated actuating voltage $U_c$	24 V DC
Voltage range with reference to $U_c$	0.8 ... 1.25

# Hybrid motor starter - ELR H3-IES-PT-24DC/500AC-9-T - 2906064

## Technical data

### Input data

Rated actuating current $I_C$	$\leq 5$ mA
Switching level "safe off"	$< 5$ V DC
Protective circuit	Protection against polarity reversal
Typical response time	$< 35$ ms
Typical turn-off time	$< 40$ ms

### Output data load output

Rated operating voltage $U_e$	500 V AC
Operating voltage range	42 V AC ... 550 V AC
Load current	max. 9 A (see derating curve)
Min. load current	1.5 A
Trigger characteristic in acc. with IEC 60947	Class 10A
Rated operating current at AC-51	9 A
Rated operating current at AC-53a	6.5 A
Leakage current	0 mA
Residual voltage	$< 0.5$ V
Protective circuit	Surge protection Varistor

### Output data reply output

Note	Confirmation 01: floating change-over contact, signal contact
Contact type	1 PDT
Contact material	AgSnO <sub>2</sub> , hard gold-plated
Maximum switching voltage	30 V AC 36 V DC
Minimum switching voltage	100 mV AC/DC (at 10 mA)
Min. switching current	1 mA (at 24 V)
Maximum inrush current	50 mA
Limiting continuous current	50 mA
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)
Note	the following values are applicable if a gold layer is destroyed
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 100 mA)
Min. switching current	10 mA (at 12 V)
Limiting continuous current	6 A
Interrupting rating (ohmic load) max.	140 W (at 24 V DC) 20 W (at 48 V DC) 18 W (at 60 V DC) 23 W (at 110 V DC)

# Hybrid motor starter - ELR H3-IES-PT-24DC/500AC-9-T - 2906064

## Technical data

### Output data reply output

	40 W (at 220 V DC)
	1500 VA (for 250 V AC)
Switching capacity according to IEC 60947-5-1	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.1 A (at 220 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 230 V, AC15)

### Measuring technology and signaling contact

Measuring via	Current transformer for line current on L1 and L3
---------------	---

### Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14

### General

Mounting position	Vertical (horizontal DIN rail)
Assembly instructions	Can be aligned with spacing = 20 mm
Operating mode	100% operating factor
Designation	Standards/regulations
Standards/regulations	IEC 60947-1
	EN 60947-4-2
	IEC 61508
	ISO 13849
Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	DIN EN 50178
Rated surge voltage	6 kV
Insulation	Safe isolation (EN 50178) for mains voltage ≤ 500 V AC
	Safe isolation (IEC 60947-1) for mains voltage ≤ 300 V AC
	Basic insulation (IEC 60947-1) for mains voltage of 300 ... 500 V AC
Rated insulation voltage	500 V
Pollution degree	2

# Hybrid motor starter - ELR H3-IES-PT-24DC/500AC-9-T - 2906064

## Technical data

### General

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

### Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

### Ambient conditions

Ambient temperature (operation)	5 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Degree of protection	IP20

### UL data

Short-circuit current rating (SCCR)	100 kA (500 V AC (30 A CC/30 A J (high fault) fuse))
	5 kA (500 V AC (20 A RK5 (standard fault) fuse))

## Classifications

### eCl@ss

eCl@ss 5.1	27371601
eCl@ss 6.0	27371601

### ETIM

ETIM 5.0	EC001037
----------	----------

## Approvals

### Approvals

---

#### Approvals

UL Listed / cUL Listed / cULus Listed

---

#### Ex Approvals

#### ATEX

---

# Hybrid motor starter - ELR H3-IES-PT-24DC/500AC-9-T - 2906064

## Approvals

Approvals submitted

### Approval details



## Drawings

Diagram



### Derating curve