

ELR 3-230AC/500AC- 9 - Solid-state contactor



2297222

<https://www.phoenixcontact.com/pc/products/2297222>

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 documentation. Our general terms of use for downloads are valid.



Three-phase solid-state contactor with 230 V AC input, 9 A output current, zero voltage switch, optionally with thermal fuse

Your advantages

- Optional thermal fuse
- Stable and short switching times
- Noise and wear-free switching
- Long service life
- High switching frequency
- Integrated protection circuit

Commercial data

Item number	2297222
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	CK7212
Catalog page	Page 43 (C-5-2019)
GTIN	4046356175586
Weight per piece (including packing)	708.4 g
Weight per piece (excluding packing)	708.4 g
Customs tariff number	85364900
Country of origin	DE

ELR 3-230AC/500AC- 9 - Solid-state contactor



2297222

<https://www.phoenixcontact.com/pc/products/2297222>

Technical data

Product properties

Product type	Solid-state contactor
Operating mode	100% operating factor

Electrical properties

Number of phases	3
Test voltage (Input/output)	5 kV _{rms} (50 Hz, 60 s)
Switching frequency	≤ 1 Hz

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 voltage to the main circuit	Basic insulation

Input data

Control

Input name	Control input right/left
Mains frequency	50 Hz 60 Hz
Rated actuating voltage U_C	230 V AC
Triggering voltage range	92 V AC ... 253 V AC
Voltage range with reference to U_C	0.4 ... 1.1 0.4 ... 1.1
Rated actuating current I_C	12.5 mA
Switching threshold	48 V AC ("0" signal) 96 V AC ("1" signal)
Protective circuit	Surge protection; Varistor
Error indication	Red LED
Status display	Yellow LED

Output data

AC output

Rated operating voltage U_e	500 V AC
Operating voltage range	48 V AC ... 575 V AC
Rated operating current at AC-51	9 A
Rated operating current at AC-53a	9 A
Peak offstate voltage	1200 V
Mains frequency	40 Hz ... 100 Hz

ELR 3-230AC/500AC- 9 - Solid-state contactor



2297222

<https://www.phoenixcontact.com/pc/products/2297222>

Load current range	100 mA ... 9 A (see to derating)
Leakage current	6 mA
Residual voltage	< 1.5 V
Surge current	300 A (t = 10 ms)
Max. load value	580 A ² s
Protective circuit	RCV circuit
Surge voltage protection	> 575 V AC

Connection data

Control circuits

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	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
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 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
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
Error indication	Red LED

Dimensions

Width	67.5 mm
Height	99 mm
Depth	114.5 mm

Environmental and real-life conditions

Ambient conditions

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

ELR 3-230AC/500AC- 9 - Solid-state contactor



2297222

<https://www.phoenixcontact.com/pc/products/2297222>

Approvals

UL approval

Certificate	NMFT.E323771
	NRNT.E172140

UL data

SCCR	5 kA (20 A RK5 (standard fault) fuse)
FLA	2 A (at 500 V, AC Resistance)
	2 A (at 500 V, AC General USE)
	2 A (at 500 V, AC Resistance Air Heating)

Standards and regulations

Standards/regulations

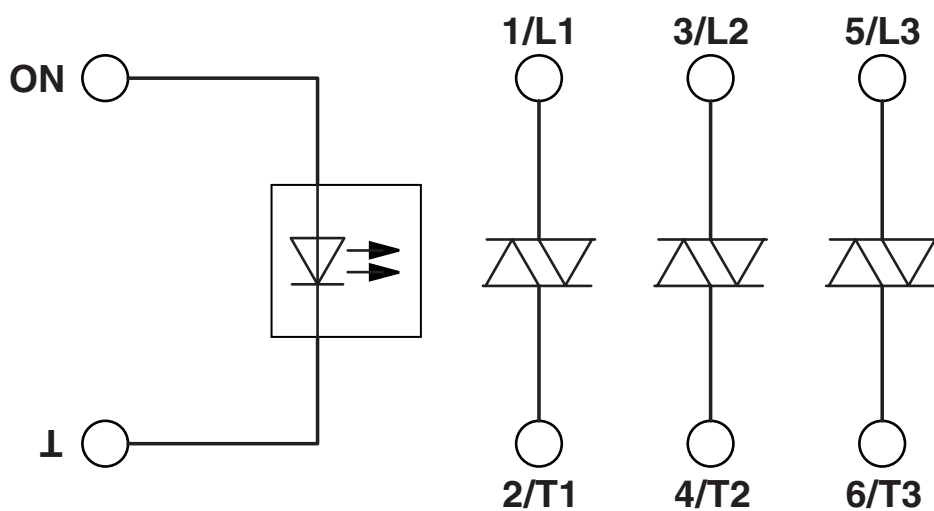
Standards/regulations	DIN EN 50178
	EN 60947

Mounting

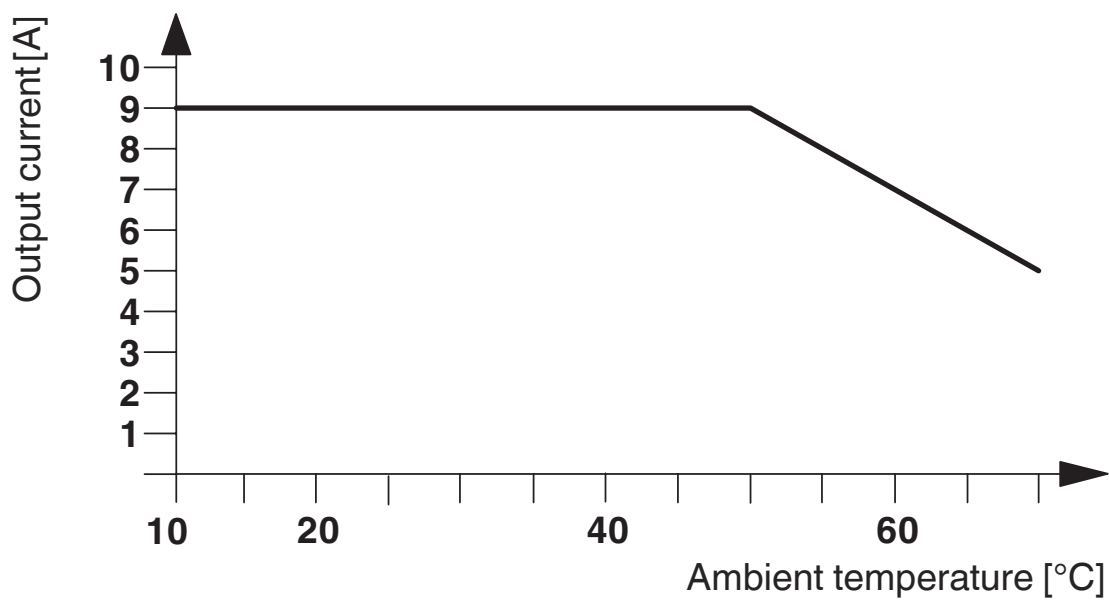
Mounting type	DIN rail mounting
Assembly instructions	Can be aligned with spacing = 20 mm
Mounting position	Vertical (horizontal DIN rail)

Drawings

Block diagram



Diagram



ELR 3-230AC/500AC- 9 - Solid-state contactor



2297222

<https://www.phoenixcontact.com/pc/products/2297222>

Classifications

ECLASS

ECLASS-11.0	27371014
-------------	----------

UNSPSC

UNSPSC 21.0	39122333
-------------	----------

ELR 3-230AC/500AC- 9 - Solid-state contactor



2297222

<https://www.phoenixcontact.com/pc/products/2297222>

Environmental product compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

Phoenix Contact 2024 © - all rights reserved
<https://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstraße 8
D-32825 Blomberg
+49 (0) 5235-3 00
info@phoenixcontact.com