

ELR 1-SC-24DC/600AC-20 - Solid-state contactor



1032919
<https://www.phoenixcontact.com/us/products/1032919>

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Single-phase solid-state contactor, input voltage: 24 V DC, output current: 20 A, zero voltage switch

Commercial data

Item number	1032919
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C471
Product key	CK6831
Catalog page	Page 48 (C-5-2019)
GTIN	4055626537726
Weight per piece (including packing)	260.5 g
Weight per piece (excluding packing)	255 g
Customs tariff number	85364190
Country of origin	MT

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Technical data

Product properties

Product type	Solid-state contactor
Data management status	
Article revision	01

Electrical properties

Number of phases	1
Maximum power dissipation for nominal condition	20 W
Mains type	1-phase

Input data

Control

Input name	Control input
Rated actuating voltage U_C	24 V DC
Triggering voltage range	4 V DC ... 32 V DC
Rated actuating current I_C	approx. 12 mA
Switching threshold	≤ 1 V DC ("0" signal) ≥ 4 V DC ("1" signal)
Operating voltage display	Green LED
Transmission frequency	25 Hz

Output data

Load output

Operating voltage range	42 V AC ... 660 V AC
Rated operating current at AC-51	20 A
Rated operating current at AC-53a	5 A ($T_A = 25$ °C) 5 A ($T_A = 40$ °C)
Peak offstate voltage	1200 V
Mains frequency	45 Hz 65 Hz
Load current range	150 mA ... 20 A (see to derating)
Leakage current	< 3 mA (In off state)
Residual voltage	< 1 V
Surge current	325 A ($t = 10$ ms)
Max. load value	525 A ² s
Protective circuit	Varistor
Phase angle cos phi min	0.5

Connection data

Control circuits

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Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	0.5 mm² ... 2.5 mm²
Conductor cross section flexible	0.5 mm² ... 2.5 mm²
Conductor cross section AWG	18 ... 12

Load circuit

Connection method	Screw connection
Stripping length	12 mm
Screw thread	M4
Conductor cross section rigid	2.5 mm² ... 6 mm²
Conductor cross section flexible	1 mm² ... 4 mm²
Conductor cross section AWG	14 ... 10

Protective conductor connection

Connection method	Ring cable lug
Screw thread	M5
Tightening torque	1.5 Nm

Signaling

Operating voltage display	Green LED
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Dimensions

Width	18 mm
Height	110 mm
Depth	103 mm

Material specifications

Color	gray (RAL 7042)
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Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-30 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C

Standards and regulations

Standards/regulations

Standards/regulations	EN 61000-4-2
	EN 61000-4-3
	EN 61000-4-4
	EN 61000-4-5
	EN 55011

Mounting

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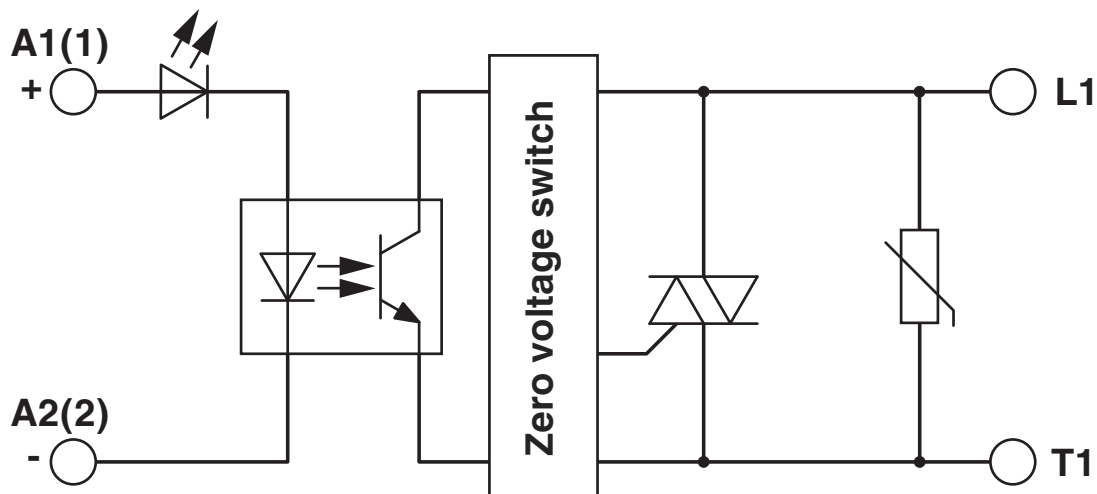
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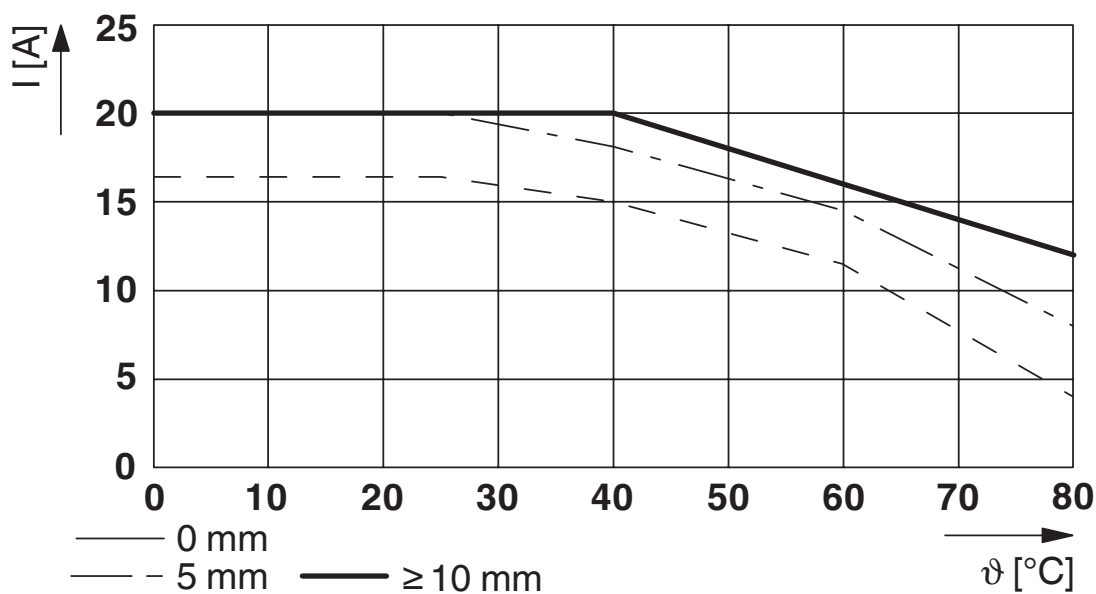
Mounting type	DIN rail mounting
Assembly note	Can be aligned with ≥ 22.5 mm spacing
Mounting position	Vertical (horizontal DIN rail)

Drawings

Block diagram



Diagram



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Approvals

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EAC
Approval ID: RU C-DE*.B.0080120



UL Listed
Approval ID: FILE E 323771



cUL Listed
Approval ID: FILE E 323771

cULus Listed

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Classifications

ECLASS

ECLASS-11.0	27371003
ECLASS-12.0	27371003
ECLASS-13.0	27371003

ETIM

ETIM 9.0	EC000066
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UNSPSC

UNSPSC 21.0	39122300
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-25
	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.)	No substance above 0.1 wt%
EF3.0 Climate Change	
CO2e kg	3.14 kg CO2e