

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	DK6831
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
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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

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3

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Conductor cross section rigid	0.5 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.5 mm ² ... 2.5 mm ²
Conductor cross section AWG	18 ... 12
Tightening torque	0.5 Nm ... 0.6 Nm

Load circuit

Connection method	Screw connection
Stripping length	12 mm
Screw thread	M4
Conductor cross section rigid	2.5 mm ² ... 6 mm ²
Conductor cross section flexible	1 mm ² ... 4 mm ²
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

Mounting type	DIN rail mounting
Assembly note	can be aligned with ≥ 22.5 mm spacing

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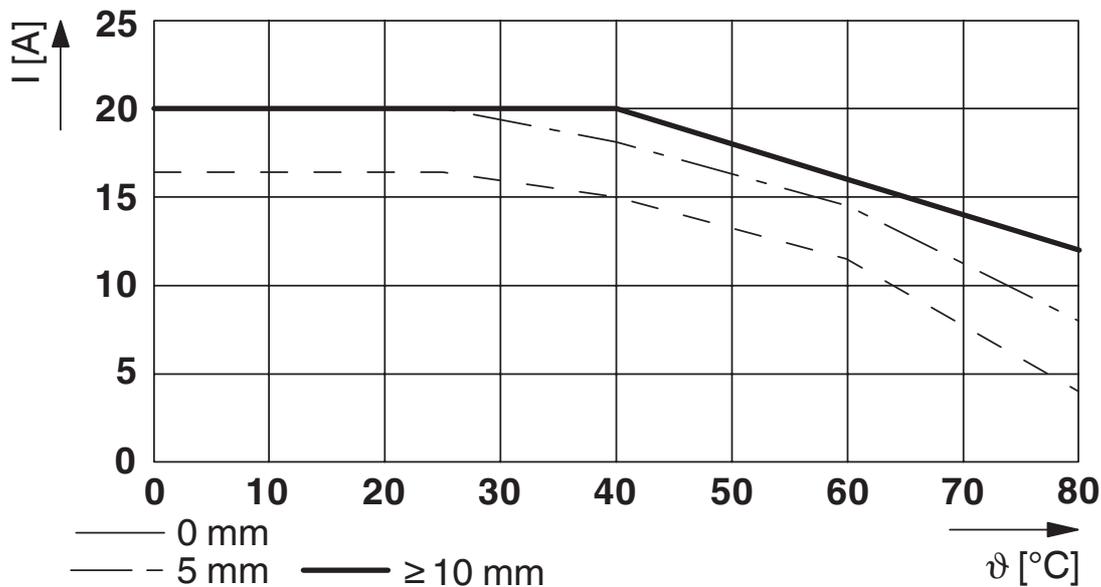
<https://www.phoenixcontact.com/us/products/1032919>

Mounting position

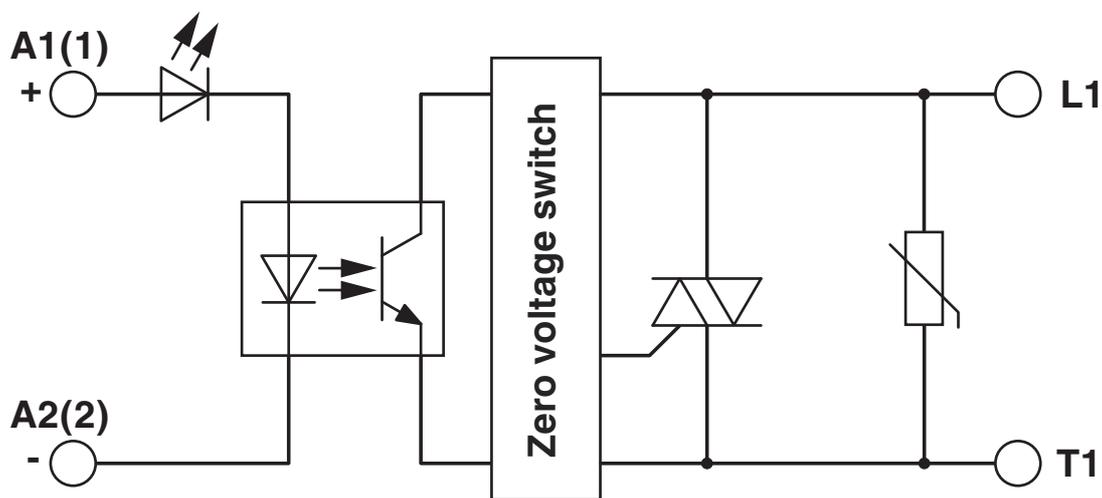
Vertical (horizontal DIN rail)

Drawings

Diagram



Block 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

Approval ID: E323771

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Classifications

ECLASS

ECLASS-13.0	27371003
ECLASS-15.0	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
Exemption	6(c), 7(a), 7(c)-I

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.)	Lead(CAS: 7439-92-1)
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EF3.0 Climate Change

CO2e kg	3.14 kg CO2e
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