

# 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	$\leq 1$ V DC ("0" signal) $\geq 4$ 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 <sup>2</sup> 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 <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
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 <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross-section flexible	1 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross-section AWG	14 ... 10
Tightening torque	1.5 Nm ... 2 Nm

## Protective conductor connection

Connection method	Ring cable lug
Screw thread	M4
Tightening torque	1 Nm ... 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
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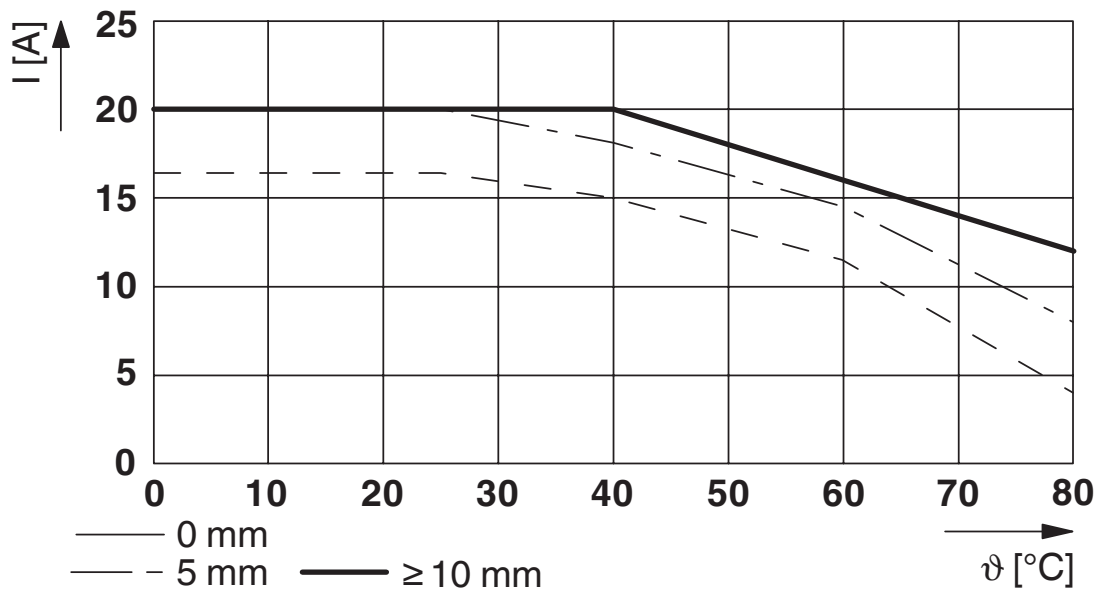
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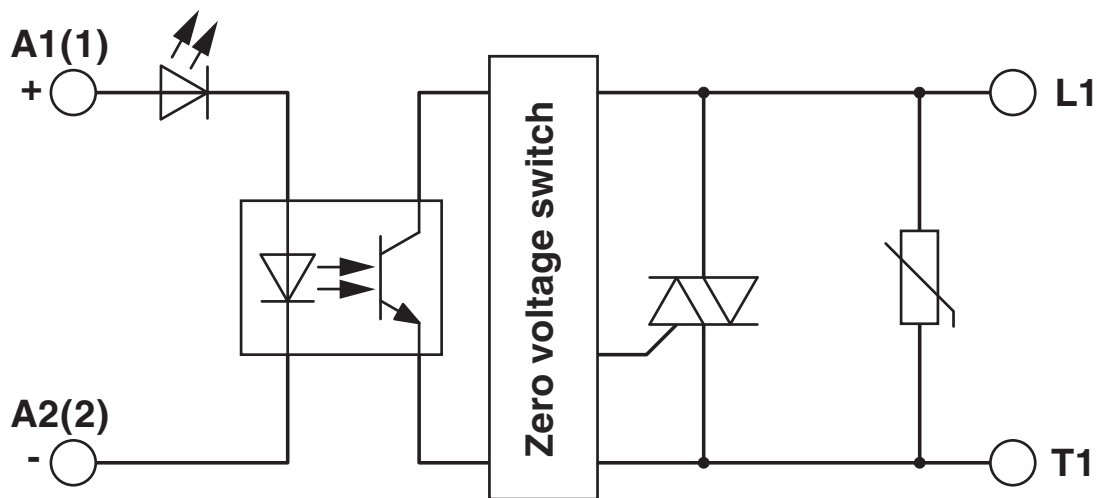
Assembly note	can be aligned with $\geq 22.5$ mm spacing
Mounting position	Vertical (horizontal DIN rail)

Drawings

Diagram



Block diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1032919>



**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 10.0	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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### EF3.1 Climate Change

CO2e kg	3.14 kg CO2e
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