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)	254 g
Weight per piece (excluding packing)	255 g
Customs tariff number	85364190
Country of origin	MT

Technical data

Product properties

Product type	Solid-state contactor

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^2s
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

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
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 mm² ... 6 mm²
Conductor cross-section flexible	1 mm² ... 4 mm²
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

Dimensions

Width	18 mm
Height	110 mm
Depth	103 mm

Material specifications

Color	gray (RAL 7042)

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

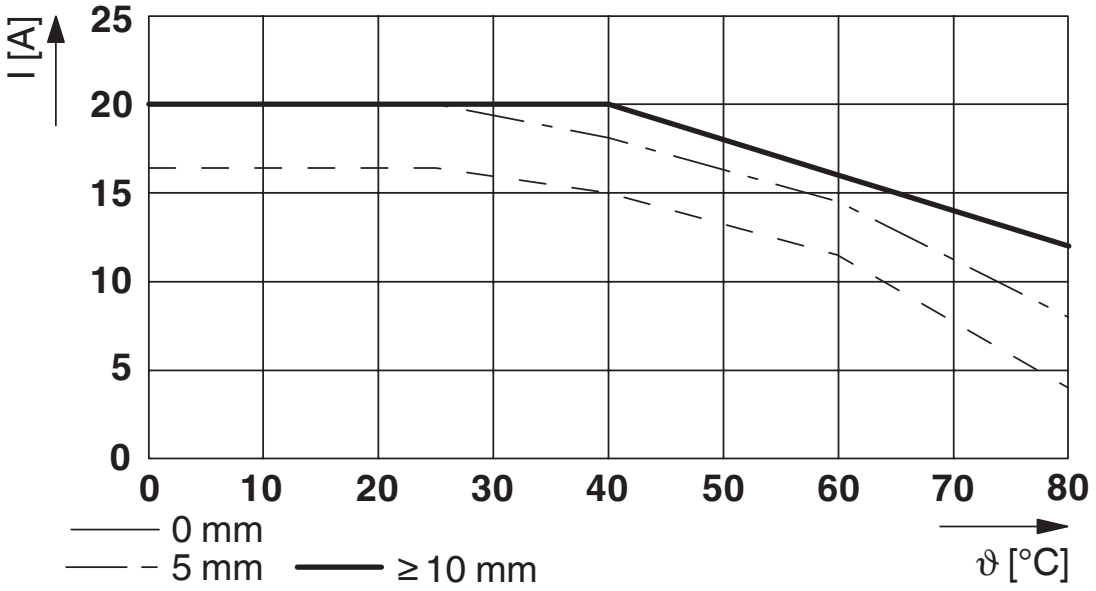
Mounting

Mounting type	DIN rail mounting

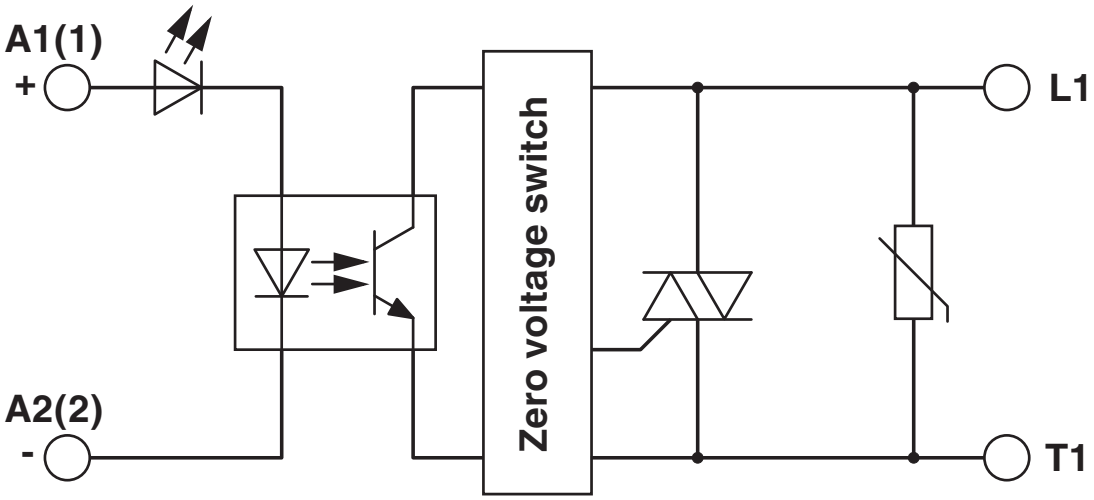
Assembly note	can be aligned with ≥ 22.5 mm spacing
Mounting position	Vertical (horizontal DIN rail)

Drawings

Diagram



Block diagram



Approvals

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

UL Listed
Approval ID: FILE E 323771

cUL Listed
Approval ID: FILE E 323771

cULus Listed
Approval ID: E323771

Classifications

ECLASS

ECLASS-13.0	27371003
ECLASS-15.0	27371003

ETIM

ETIM 10.0	EC000066

UNSPSC

UNSPSC 21.0	39122300

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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