

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



1032919

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

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.



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

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



1032919

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

## 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	$\leq 1$ 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

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



1032919

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

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
---------------------------	-----------

## 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
---------------	-------------------

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



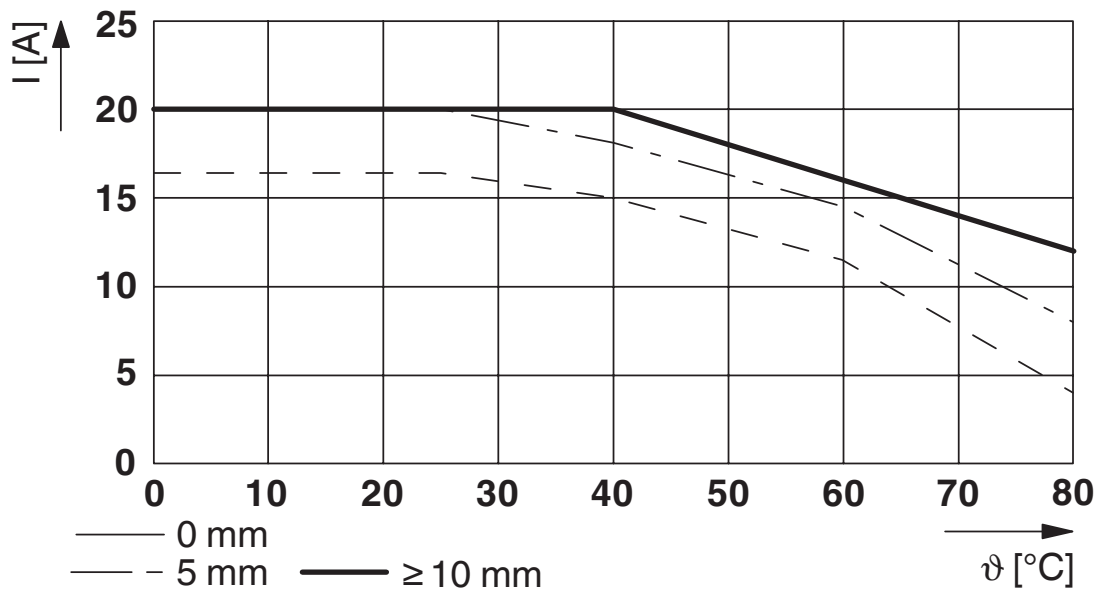
1032919

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

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

Drawings

Diagram



Block diagram



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



1032919

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

## 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

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



1032919

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

## Classifications

### ECLASS

ECLASS-13.0	27371003
ECLASS-15.0	27371003

### ETIM

ETIM 10.0	EC000066
-----------	----------

### UNSPSC

UNSPSC 21.0	39122300
-------------	----------

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



1032919

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

## 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)
-------------------------------------	----------------------

### EF3.1 Climate Change

CO2e kg	3.14 kg CO2e
---------	--------------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)