

ST-OV3-120AC/220DC/1 - Solid-state relay



2903163

<https://www.phoenixcontact.com/us/products/2903163>

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Plug-in power solid-state relay, with LED and protective circuit in input and output circuits, input: 120 V AC, output: 15 - 220 V DC/max. 1 A, can be plugged into basic terminal blocks

The figure shows version ST-OV
3- 5 DC/220 DC/1

Commercial data

Item number	2903163
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C460
Product key	DK61B2
GTIN	4017918078959
Weight per piece (including packing)	58.58 g
Weight per piece (excluding packing)	58.58 g
Customs tariff number	85364900
Country of origin	DE

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Technical data

Product properties

Product type	Single solid-state relay
Data management status	
Date of last data management	05.09.2025

Electrical properties

Test voltage (Input/output)	2.5 kV AC (Input/output)
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Input data

Nominal input voltage U_N	120 V AC
Input voltage range in reference to U_N	0.8 ... 1.2
Input voltage range	96 V AC ... 144 V AC
Switching threshold "0" signal, voltage	≤ 10.5 V
Switching threshold "1" signal voltage	≥ 29 V
Typical input current at U_N	5 mA
Typical response time	4 ms
Typical turn-off time	35 ms
Transmission frequency	10 Hz

Output data

Design of digital output	electronic
Output voltage range	15 V DC ... 220 V DC
Limiting continuous current	1 A (see derating curve)
Surge current	2 A (t = 1 s)
Peak offstate voltage	220 V DC (Collector-emitter reverse voltage)
Voltage drop at max. limiting continuous current	1.2 V
Output circuit	2-conductor, floating
Protective circuit	Reverse polarity protection; Polarity protection diode Surge protection

Dimensions

Width	20.8 mm
Height	33 mm
Depth	66.5 mm

Material specifications

Color	green (RAL 6021)
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Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C
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Ambient temperature (storage/transport)

-20 °C ... 70 °C

Standards and regulations

Standards/regulations

DIN VDE 0110

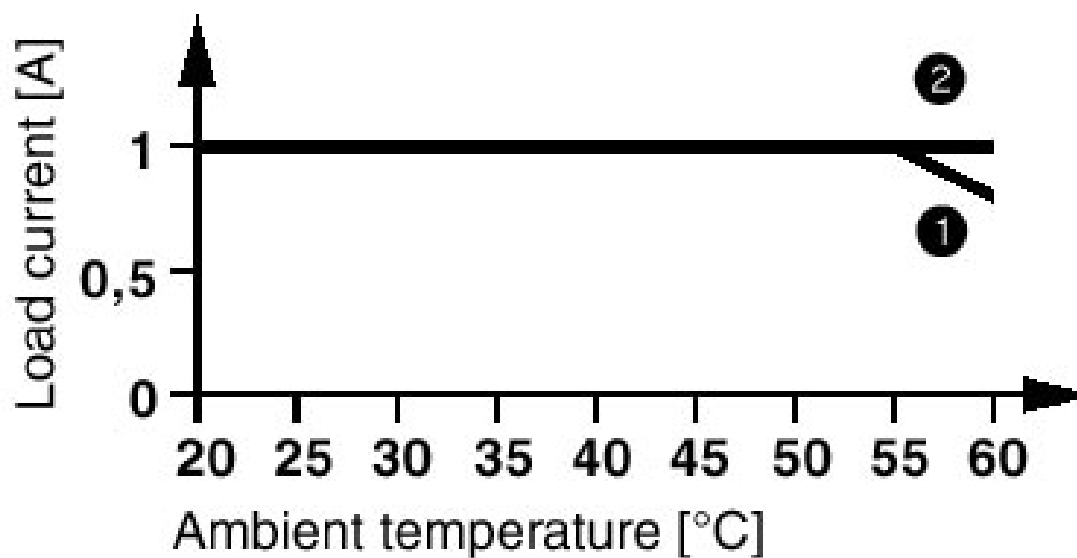
Mounting

Mounting position

any

Drawings

Diagram



- ① mounted in rows with zero spacing.
- ② power optocouplers mounted in rows, ≥ 20 mm.

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Circuit diagram



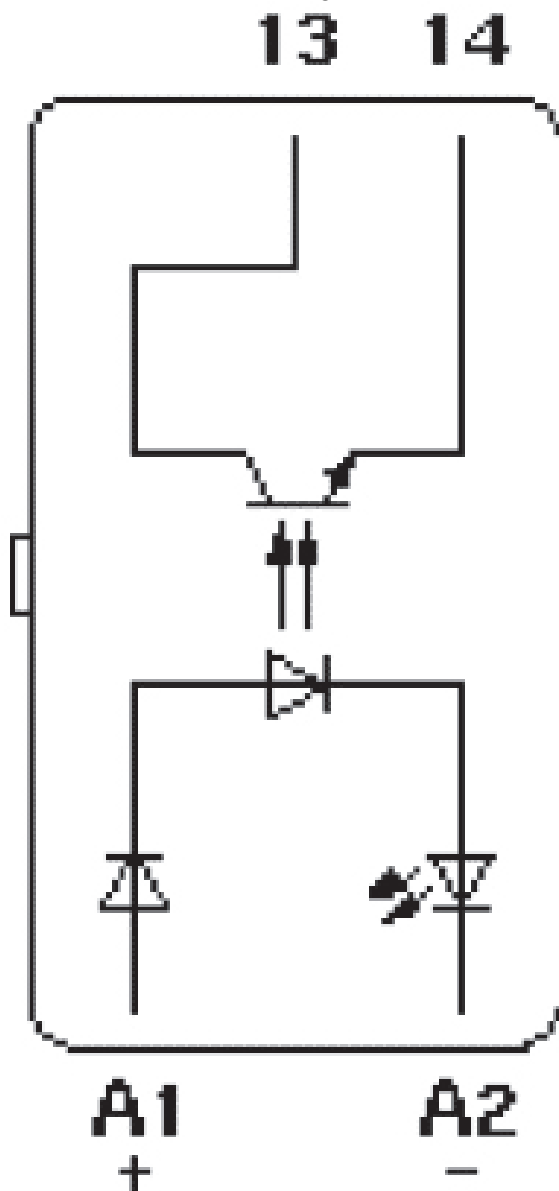
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Circuit diagram



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Environmental product compliance

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	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%
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