

# RIF-2-RSC-LDP-24DC/4X21 AU - Relay module



1173451

<https://www.phoenixcontact.com/us/products/1173451>

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Preassembled relay module with screw connection, consisting of: relay base, power contact relay with additional hard gold plating, and retaining bracket. Contact switching type: 4 changeover contacts. Input voltage: 24 V DC

## Product description

The pluggable electromechanical and solid-state relays in the RIFLINE complete product range and the base are recognized and approved in accordance with UL 508. The relevant approvals can be called up at the individual components in question.

## Commercial data

Item number	1173451
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	C465
Product key	DK651I
GTIN	4063151200251
Weight per piece (including packing)	113 g
Weight per piece (excluding packing)	113 g
Customs tariff number	85364190
Country of origin	PL

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## Set consists of

### RIF-2-BSC/4X21 - Relay base

2900932

<https://www.phoenixcontact.com/us/products/2900932>



RIF-2... relay base, for industrial relay with 2 or 4 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

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### RIF-RH-2 - Retaining bracket

2900954

<https://www.phoenixcontact.com/us/products/2900954>



Relay retaining bracket, with ejector function and holder for marking material, suitable for RIF-2 relay base, for industrial relay

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## Technical data

### Product properties

Product type	Relay Module
Product family	RIFLINE complete
Application	Universal
Operating mode	100% operating factor
Mechanical service life	approx. $2 \times 10^7$ cycles

### Insulation characteristics

Insulation	Basic insulation
Overvoltage category	II
Pollution degree	2

### Data management status

Date of last data management	12.09.2025
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### Electrical properties

Maximum power dissipation for nominal condition	1.01 W
Test voltage (Winding/contact)	2.5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)
Test voltage (Contact/contact)	2 kV <sub>rms</sub> (50 Hz, 1 min., contact/contact)
Rated insulation voltage	250 V AC
Rated surge voltage	2.5 kV

### Input data

#### Coil side

Nominal input voltage $U_N$	24 V DC
Input voltage range	19.2 V DC ... 30 V DC (20 °C)
Input voltage range in reference to $U_N$	see diagram
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at $U_N$	42 mA
Typical response time	13 ms
Typical release time	14 ms
Protective circuit	Freewheeling diode
Status display	LED (yellow)

### Output data

#### Switching

Contact switching type	4 changeover contacts
Type of switch contact	Single contact
Contact material	AgNi, hard gold-plated
Note	If the specified maximum values for multi-layer contact relays are exceeded, the gold plating is destroyed. The maximum values of

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	the power contact relay are then valid. This can result in a shorter service life than with a pure power contact.
Maximum switching voltage	30 V AC
	36 V DC
Minimum switching voltage	2 V (24 mA)
Limiting continuous current	50 mA
Maximum inrush current	50 mA
Min. switching current	2 mA (24 V DC)
Interrupting rating (ohmic load) max.	1.2 W (24 V DC)
Switching power min.	48 mW
Utilization category CB Scheme (IEC 60947-5-1)	AC15, 1 A/240 V (N/O contact)
	DC13, 2 A/24 V (N/O contact)

Switching: when the gold layer is destroyed

Note	the following values are applicable if a gold layer is destroyed
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (At 24 mA)
Limiting continuous current	6 A
Maximum inrush current	16 A (20 ms, N/O contacts)
Min. switching current	5 mA (at 24 V)
	144 W (at 24 V DC)
	124 W (at 48 V DC)
	108 W (at 60 V DC)
	52 W (at 110 V DC)
	48 W (at 220 V DC)
Interrupting rating (ohmic load) max.	1500 VA (for 250 V AC)
	2 A (at 24 V, DC13)
	0.22 A (at 120 V, DC13)
	0.11 A (at 250 V, DC13)
	1.5 A (at 24 V, AC15)
	1.5 A (at 120 V, AC15)
Switching capacity	1 A (at 240 V, AC15)

## Connection data

Connection method	Screw connection
Stripping length	8 mm
Conductor cross-section rigid	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross-section rigid (2 conductors with same cross section)	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup> (Ferrule with plastic sleeve)
Conductor cross-section flexible (2 conductors with same cross section)	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (TWIN ferrule with plastic sleeve)

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Conductor cross-section AWG	20 ... 10 (solid)
	20 ... 12 (flexible)
Tightening torque	0.5 Nm ... 0.6 Nm

## Dimensions

### Item dimensions

Width	27 mm
Height	89 mm
Depth	75 mm

## Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94 (Housing)	V2 (Housing)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection (Relay base)	IP20 (Relay base)
Degree of protection (Relay)	RT I (Relay)
Degree of protection (Installation location)	≥ IP54 (Installation location)
Ambient temperature (operation)	-40 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m

## Approvals

### Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

## Standards and regulations

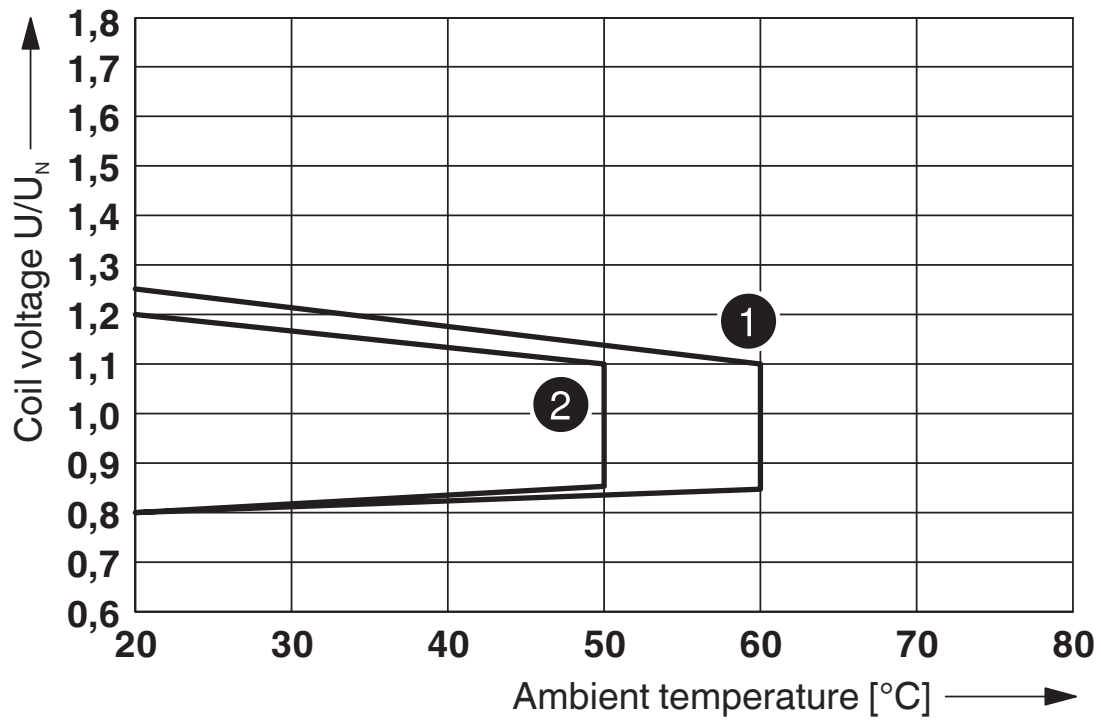
Standards/regulations	DIN EN 50178
	EN 61810-1

## Mounting

Mounting type	DIN rail mounting
Assembly note	in rows with zero spacing
Mounting position	any

Drawings

Diagram



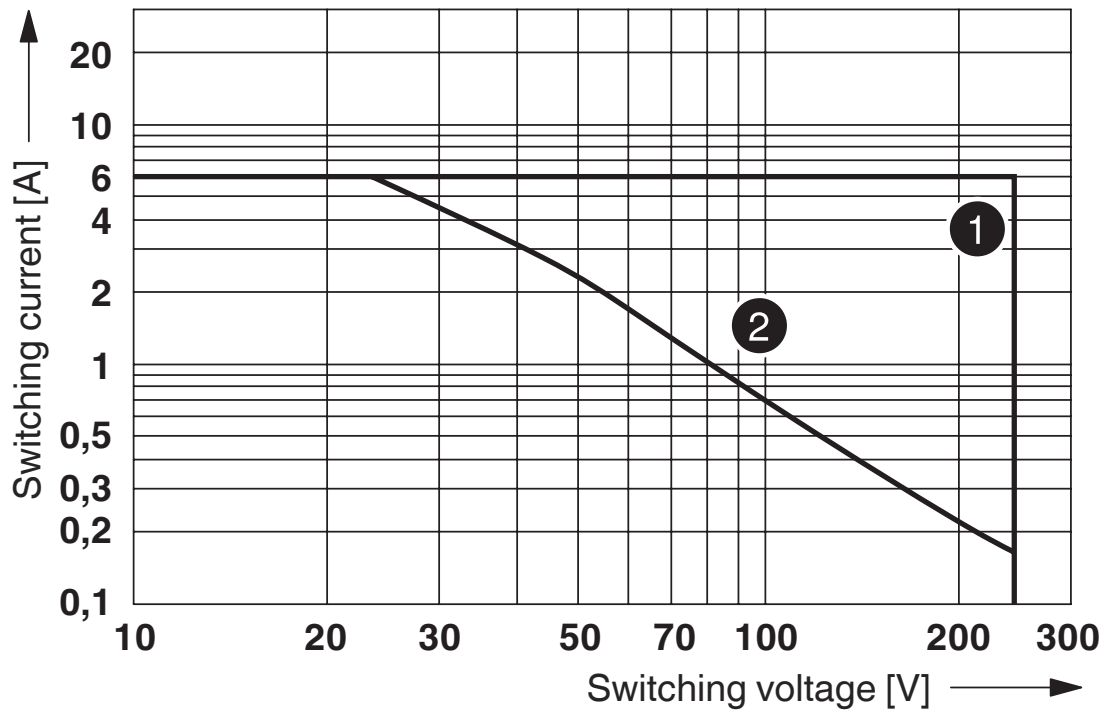
- ① DC coil (observe contact derating)
- ② AC coil (observe contact derating)

Operating voltage range

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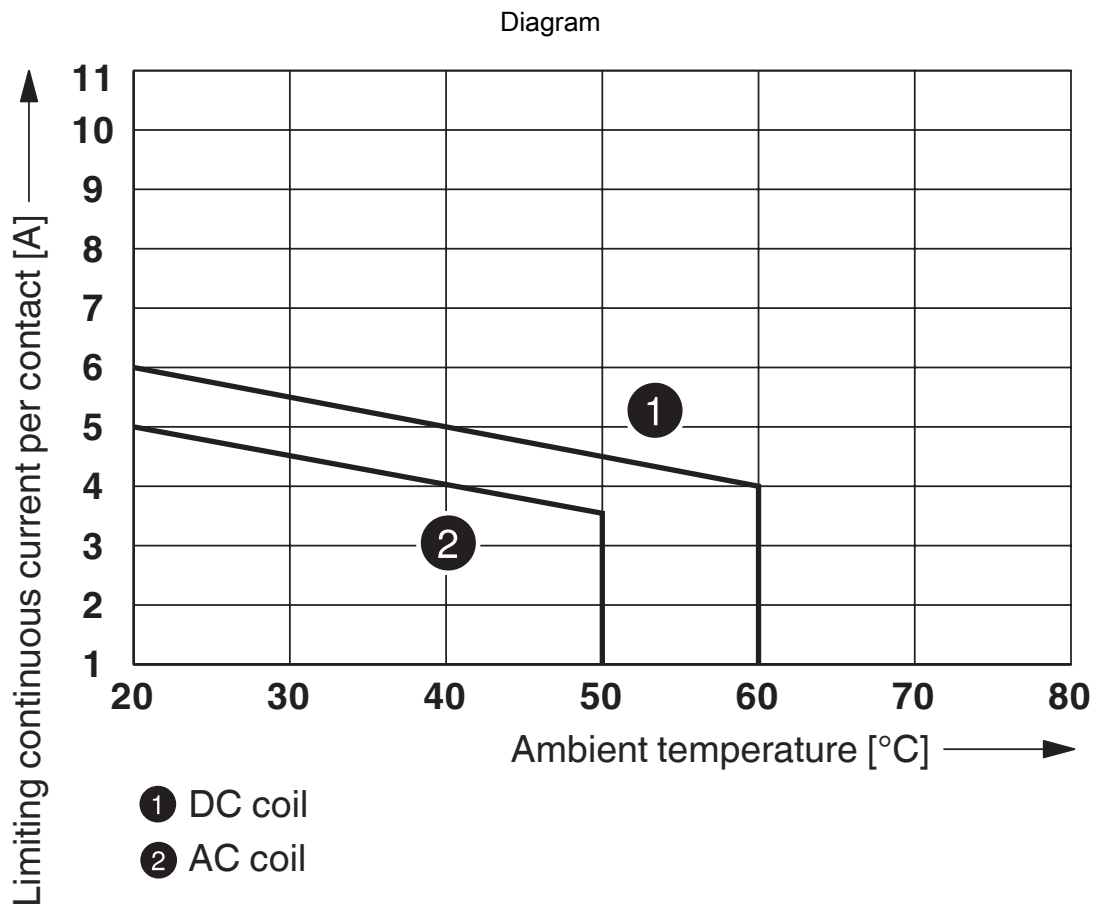
<https://www.phoenixcontact.com/us/products/1173451>

Diagram



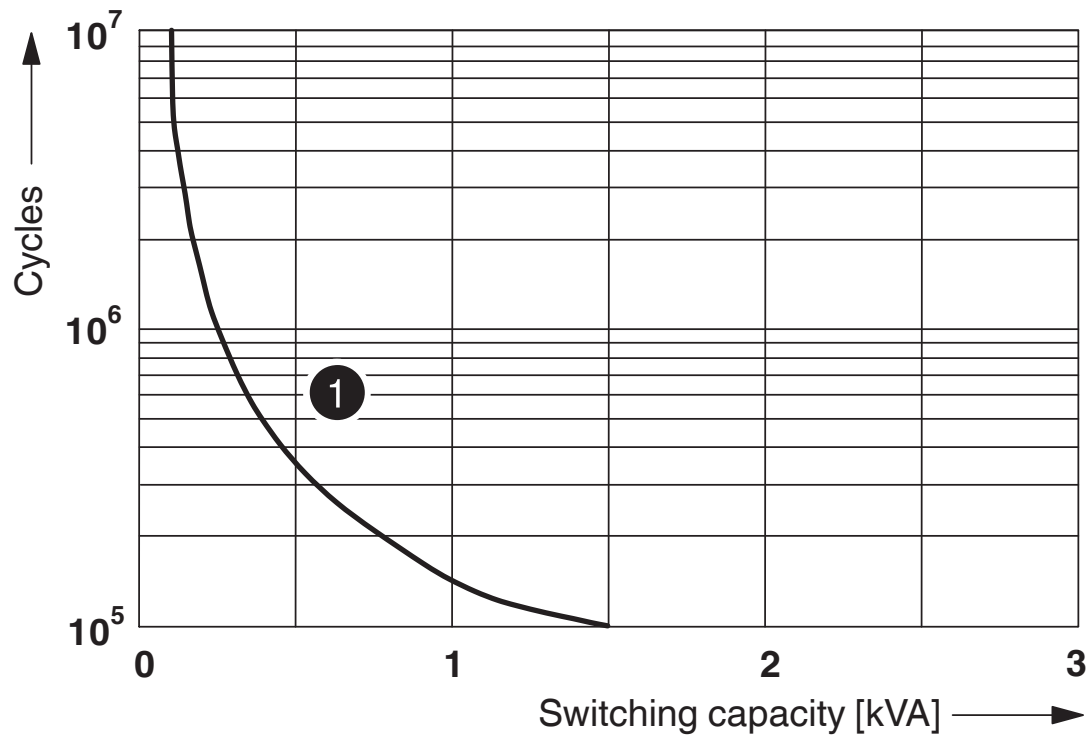
- ① AC, ohmic load
- ② DC, ohmic load

Interrupting rating



Contact derating

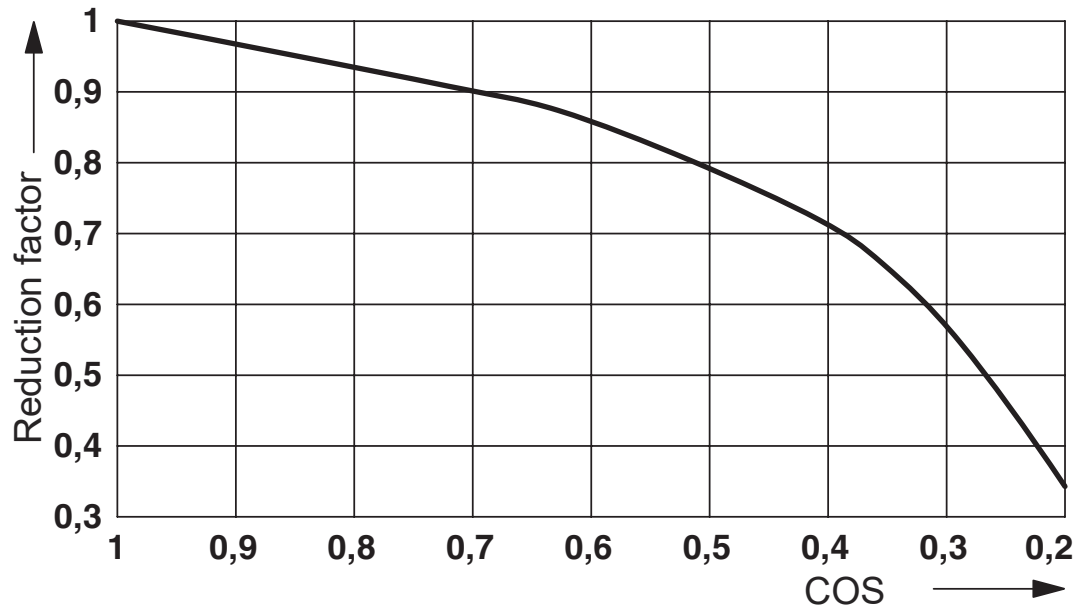
Diagram



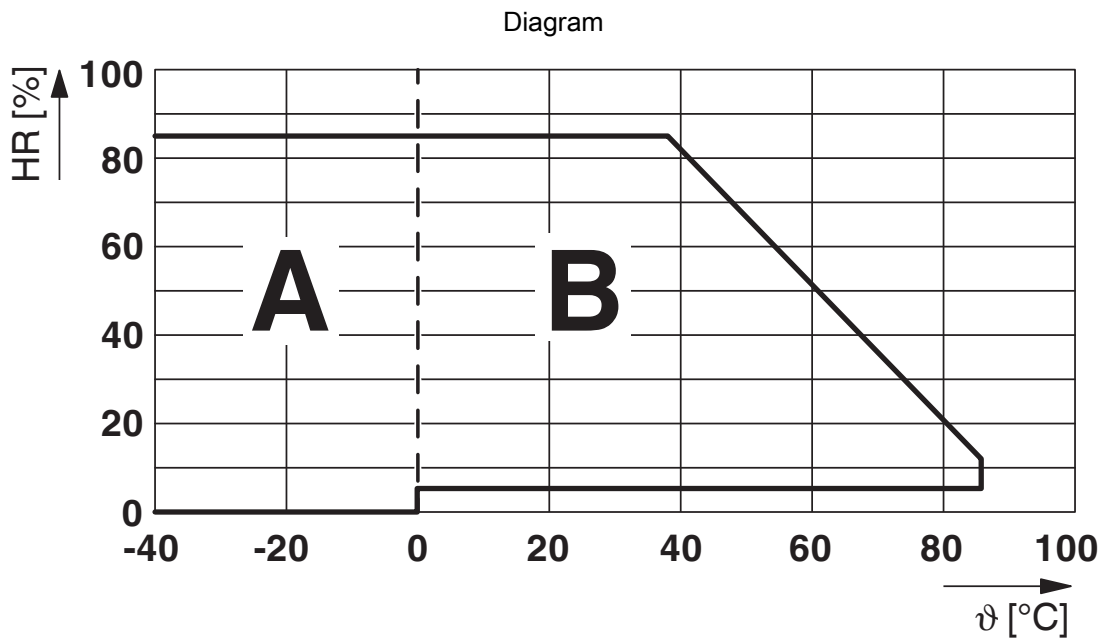
① 250 V AC, Ohmic load

Electrical service life

Diagram



Service life reduction factor



Permissible humidity for operation and storage.

The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures  $\leq 0^\circ\text{C}$  must be prevented

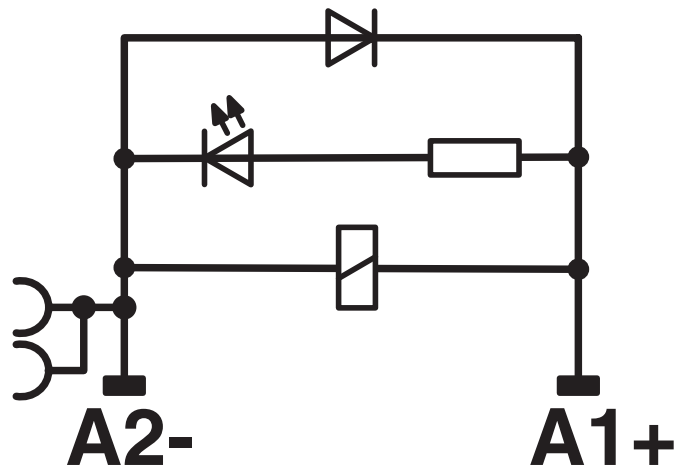
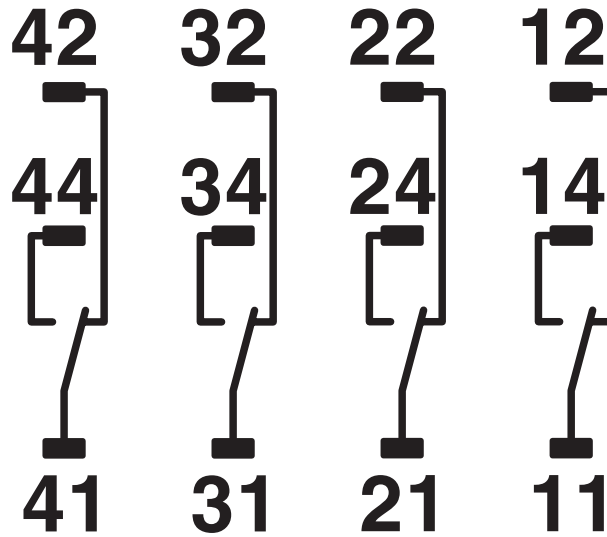
Area B: Condensation at ambient temperatures  $> 0^\circ\text{C}$  must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature  $\leq 25^\circ\text{C}$ .

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Circuit diagram



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## Classifications

### ECLASS

ECLASS-13.0

27371601

### ETIM

ETIM 9.0

EC001437

### UNSPSC

UNSPSC 21.0

39122300

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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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