

RIF-1-RPT-LV-230AC/1X21MS - Relay module



2905290

<https://www.phoenixcontact.com/us/products/2905290>

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Preamsembled relay module with Push-in connection, consisting of: relay base, relay retaining bracket, plug-in interference suppression module, and power contact relay with test button and integrated status LED. Contact switching type: 1 changeover contact. Input voltage: 230 V AC

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	2905290
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C465
Product key	DK6529
Catalog page	Page 330 (C-5-2019)
GTIN	4046356944663
Weight per piece (including packing)	70.42 g
Weight per piece (excluding packing)	70.42 g
Customs tariff number	85364900
Country of origin	CN

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Set consists of

RIF-1-BPT/2X21 - Relay base

2900931

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Relay base RIF-1..., for miniature power relay with 1 or 2 changeover contacts or solid-state relays of the same design, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

REL-MR-230AC/21HC/MS - Single relay

2987914

<https://www.phoenixcontact.com/us/products/2987914>



Plug-in miniature relay, with power contact, 1 changeover contact, test button, mechanical switching position indicator, status LED, input voltage 230 V AC

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RIF-V-120-230 UC - Plug-in module

2900948

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Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with varistor, input voltage: 120 V AC ... 230 V AC / DC ± 20 %

RIF-RH-1-H - Retaining bracket

2904468

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Relay retaining bracket, with ejector function and holder for marking material, suitable for RIF-1 relay base, for 25 mm tall miniature power relay and solid-state relay

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Technical data

Product properties

Product type	Relay Module
Product family	RIFLINE complete
Application	Universal
	Palm switch
Operating mode	100% operating factor
Mechanical service life	approx. 5×10^6 cycles

Insulation characteristics

Insulation	Safe isolation between input and output
	Basic insulation between the changeover contacts
Overvoltage category	III
Pollution degree	2

Data management status

Date of last data management	20.03.2025
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Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.81 W
Test voltage (Winding/contact)	4 kV _{rms} (50 Hz, 1 min., winding/contact)
Rated insulation voltage	250 V AC
Rated surge voltage	6 kV (Input/output)
	4 kV (between the changeover contacts)

Input data

Coil side

Nominal input voltage U_N	230 V AC (50/60 Hz)
Input voltage range	184 V AC ... 253 V AC (20 °C)
Input voltage range in reference to U_N	see diagram
Mains frequency	50/60 Hz
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U_N	3.5 mA
Typical response time	4 ms ... 10 ms
Typical release time range	3 ms ... 20 ms
Coil voltage	230 V AC
Protective circuit	Varistor
Operating voltage display	Yellow LED

Output data

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Switching

Contact switching type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (10 mA)
Limiting continuous current	8 A (see diagram)
Maximum inrush current	32 A (20 ms, N/O contacts)
Min. switching current	10 mA (12 V)
Interrupting rating (ohmic load) max.	264 W (24 V DC)
	62 W (48 V DC)
	48 W (60 V DC)
	52 W (110 V DC)
	66 W (220 V DC)
	2500 VA (250 V AC)
Switching capacity min.	120 mW
Utilization category CB Scheme (IEC 60947-5-1)	AC15, 3 A/250 V (N/O contact)
	DC13, 2 A/24 V (N/O contact)

Connection data

Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section rigid	0.14 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
	0.14 mm ² ... 1.5 mm ² (Ferrule with plastic sleeve)
	0.14 mm ² ... 1 mm ² (Ferrule with plastic sleeve, two conductors on double terminal block)
Conductor cross section AWG	26 ... 16 (solid)
	26 ... 16 (flexible)

Dimensions

Item dimensions

Width	16 mm
Height	96 mm
Depth	75 mm

Drill hole

Diameter	3.2 mm
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Material specifications

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

Environmental and real-life conditions

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Ambient conditions

Degree of protection (Relay base)	IP20 (Relay base)
Degree of protection (Relay)	RT II (Relay)
Ambient temperature (operation)	-40 °C ... 50 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Approvals

Corrosive gas test

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

Standards and regulations

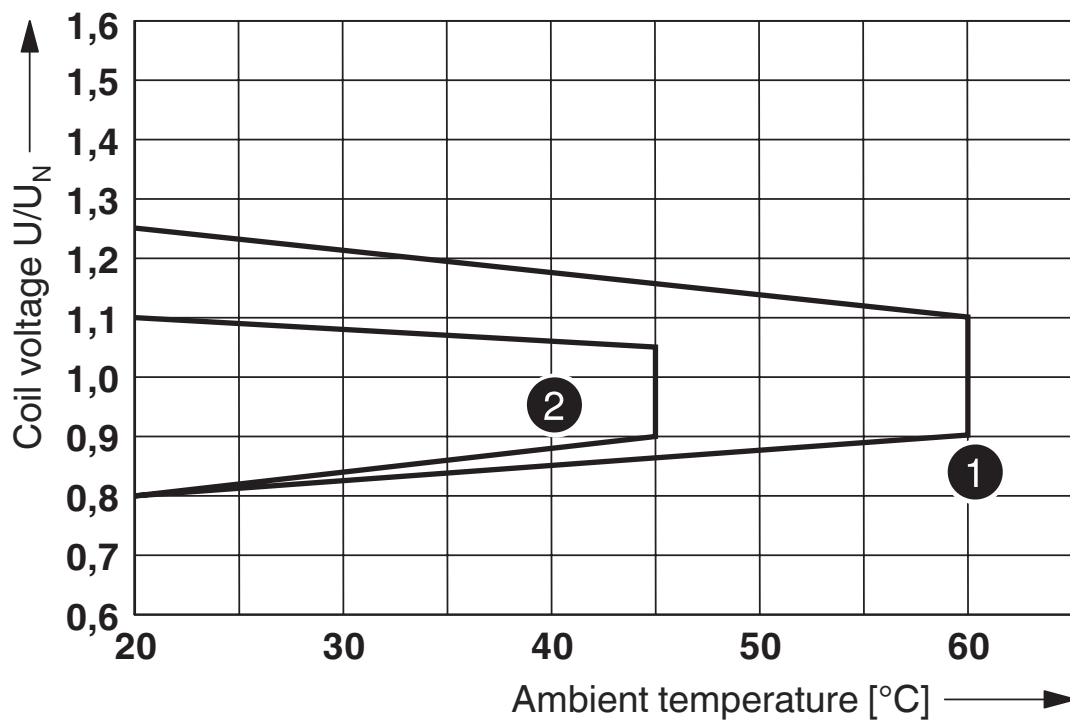
Standards/regulations	IEC 60947-5-1
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Mounting

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

Drawings

Diagram

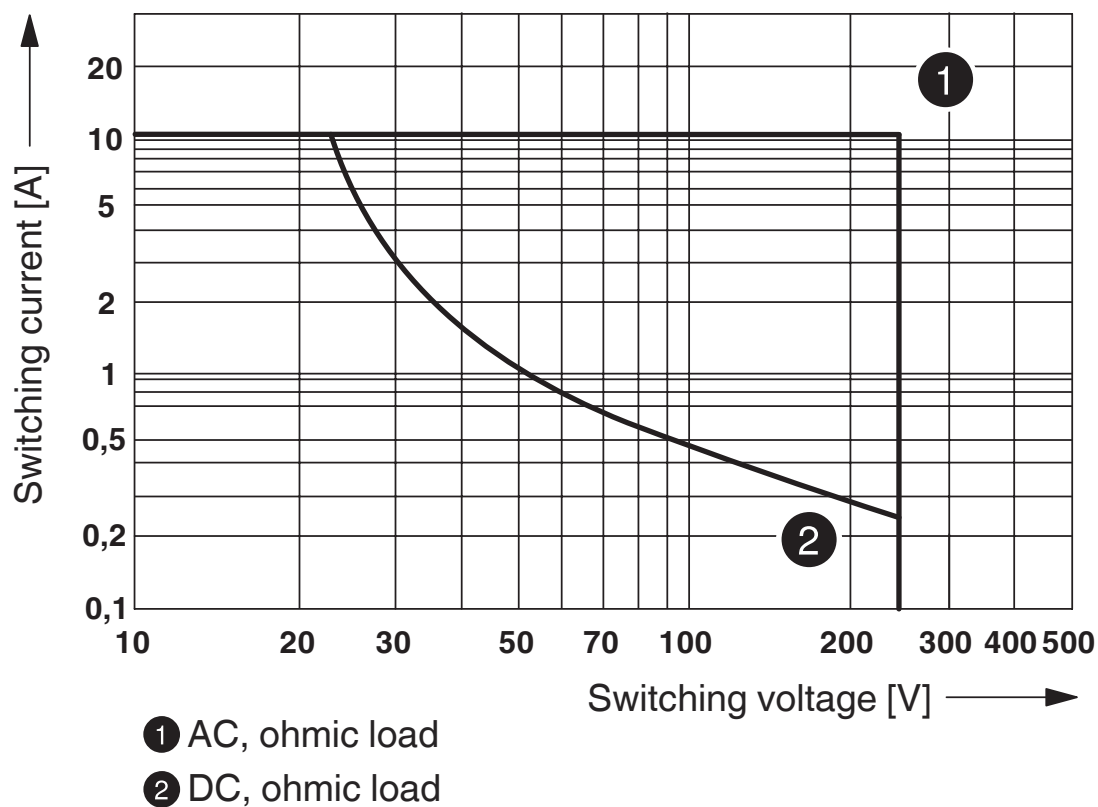


① DC coils

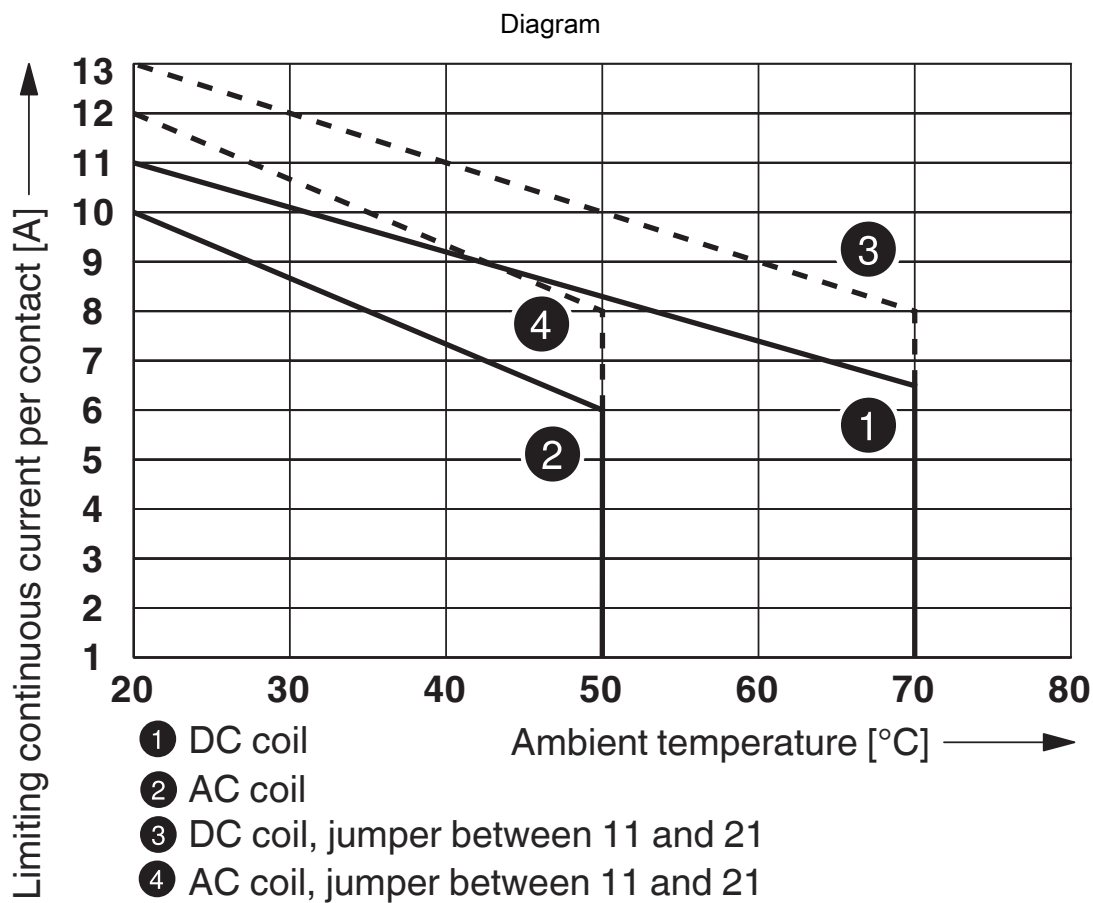
② AC coils

Operating voltage range

Diagram

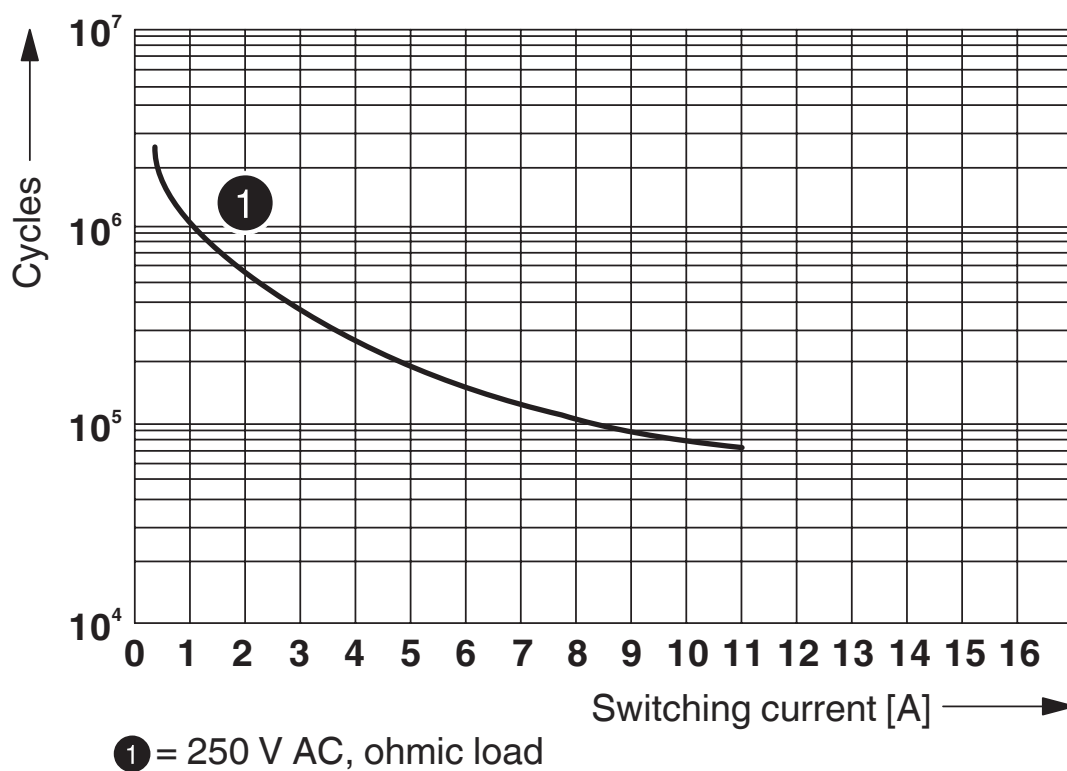


Interrupting rating



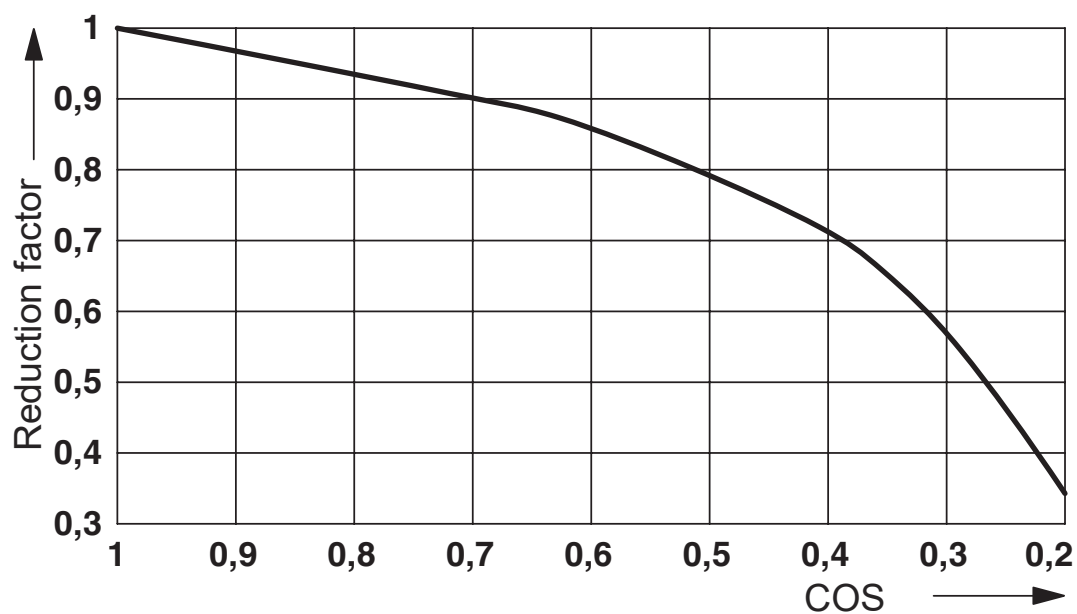
Contact derating

Diagram

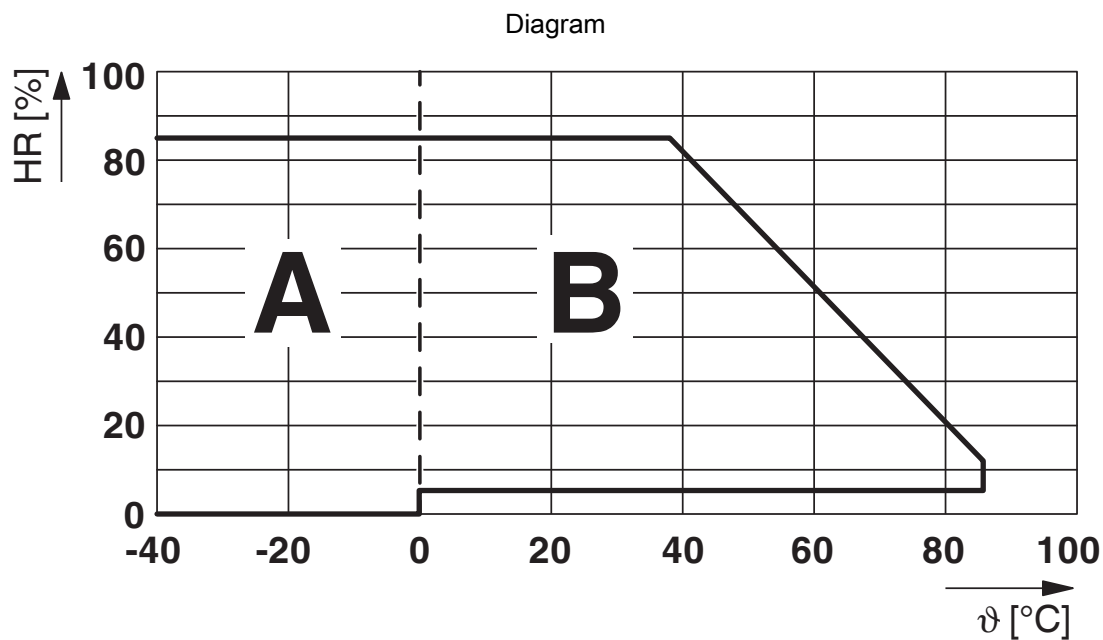


Electrical service life

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

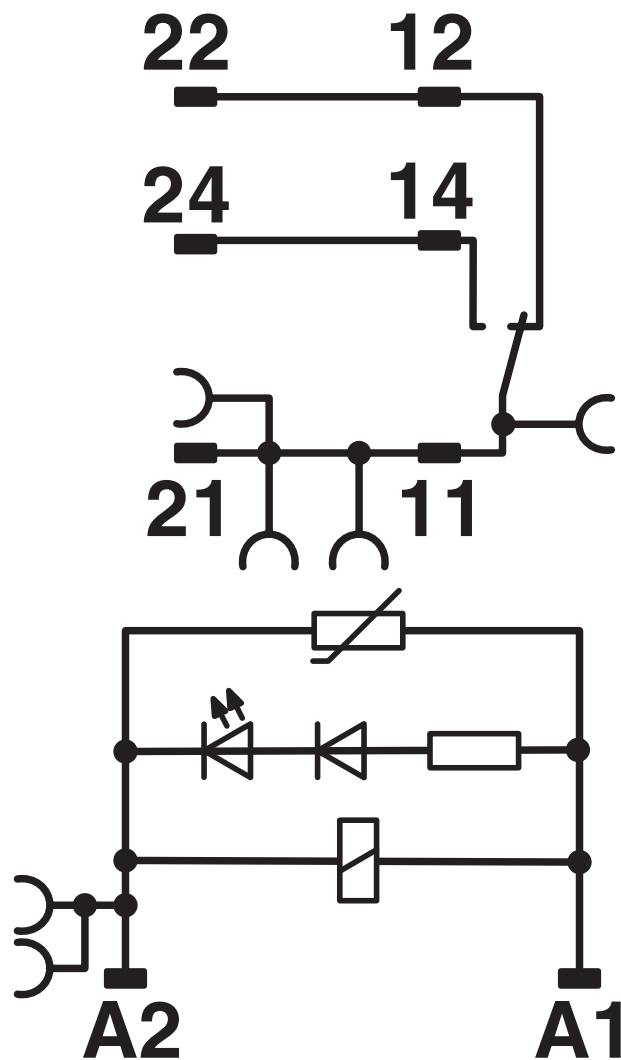
Area B: Condensation at ambient temperatures $> 0^{\circ}\text{C}$ must be prevented

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



AC coils

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Approvals

📄 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2905290>



EAC

Approval ID: RU*C-DE.*08.B.00010



CCC

Approval ID: 2024010303656844

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Classifications

ECLASS

ECLASS-13.0	27371601
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ETIM

ETIM 9.0	EC001437
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UNSPSC

UNSPSC 21.0	39122300
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
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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