

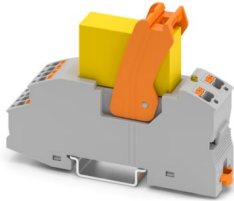
# RIF-RPT-LDP-24DC/2X2/2X1/AU/FG - Relay module



1148699

<https://www.phoenixcontact.com/us/products/1148699>

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Relay module with Push-in connection, consisting of: relay base with status LED, freewheeling diode, and retaining bracket, safety relay with force-guided contacts in accordance with DIN EN 61810-3, contact switching type: 2 N/O contacts and 2 N/C contacts, input voltage: 24 V DC

## Commercial data

Item number	1148699
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C465
Product key	DK652E
GTIN	4063151142704
Weight per piece (including packing)	76.3 g
Weight per piece (excluding packing)	71.336 g
Customs tariff number	85364110
Country of origin	CN

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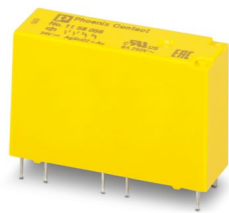
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## Set consists of

### REL-SR- 24DC/2X1AU/2X2AU/FG - Safety relays

1158056

<https://www.phoenixcontact.com/us/products/1158056>



Safety relay with force-guided contacts in accordance with DIN EN 61810-3 (type A), input voltage 24 V DC, with multi-layer gold contact, 2 N/O contacts and 2 N/C contacts

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## Technical data

### Product properties

Product type	Relay Module
Product family	RIFLINE complete
Application	Forcibly guided contacts
Operating mode	100% operating factor
Mechanical service life	approx. $10^7$ cycles
B <sub>10d</sub> (AC15)	810000 Cycles (AC15, 250 V / 0.5 A, 1 NO) 170000 Cycles (250 V / 2 A; 1 NO)
B <sub>10d</sub> (DC13)	318000 Cycles (DC13, 24 V / 1 A, 1 NO) 208000 Cycles (DC13, 24 V / 2 A, 1 NO)

Insulation characteristics: Air clearances and creepage distances between the power circuits

Insulation	Basic insulation Safe isolation, reinforced insulation and 6 kV between coil and contact circuit and between contacts 11-12 and 13-14, 41-42 to 23-24, 33-34
Overvoltage category	III
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	0.41 W
Test voltage (Winding/contact)	4 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)
Test voltage (open contact)	1.5 kV <sub>rms</sub> (50 Hz, 1 min., open contact)
Test voltage (between contacts: 7, 8 to 9, 10)	2.5 kV <sub>rms</sub> (50 Hz, 1 min., between contacts: 7, 8 to 9, 10)
Test voltage (between contacts: all others)	4 kV <sub>rms</sub> (50 Hz, 1 min., between contacts: all others)

Air clearances and creepage distances between the power circuits

Rated insulation voltage	250 V AC (Input/output)
Rated surge voltage	6 kV (Input/output)

Short-circuit protection device

Current	10 A (RT28-32)
Voltage	500 V (SCPD)
Short-circuit current	1 kA (conditional short-circuit current)

### Input data

Coil side

Nominal operating voltage U <sub>N</sub>	24 V DC
Input voltage range in reference to U <sub>N</sub>	See derating diagram
Drive and function	monostable

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Drive (polarity)	polarized
Typical input current at $U_N$	17 mA
Input power dissipation for $U_N$	0.4 W
Typical response time	10 ms
Typical release time	15 ms
Coil voltage	24 V DC
Protective circuit	Freewheeling diode
Status display	LED (yellow)

## Output data

### Switching

Contact switching type	2 N/O contacts, 2 N/C contacts
Type of switch contact	Single contact
Contact material	AgSnO, hard gold-plated
Maximum switching voltage	250 V AC 300 V DC
Minimum switching voltage	10 V (5 mA)
Limiting continuous current	6 A
Maximum inrush current	35 A (20 ms)
Min. switching current	5 mA (10 V)
Interrupting rating (ohmic load) max.	144 W (24 V DC) 100 W (48 V DC) 75 W (60 V DC) 55 W (110 V DC) 50 W (220 V DC) 1500 VA (250 V AC)
Force-guided contacts in accordance with EN 61810-3	Type A
Utilization category CB Scheme (IEC 60947-5-1)	AC15, 2 A/240 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 <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross-section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (Ferrule with plastic sleeve) 0.14 mm <sup>2</sup> ... 1 mm <sup>2</sup> (Ferrule with plastic sleeve, two conductors on double terminal block)
Conductor cross-section AWG	26 ... 16 (solid) 26 ... 16 (flexible)

## Dimensions

### Item dimensions

Width	21 mm
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Height	96 mm
Depth	67 mm

## Material specifications

Flammability rating according to UL 94	V2 (Housing)
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## Environmental and real-life conditions

### Ambient conditions

Degree of protection (Relay base)	IP20 (Relay base)
Degree of protection (Relay)	RT II (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

### UKCA

Certificate	UKCA-compliant
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## Standards and regulations

### All specifications in accordance with the standard

Standards/regulations	IEC 60947-5-1
	IEC 61810-3

### Air clearances and creepage distances between the power circuits

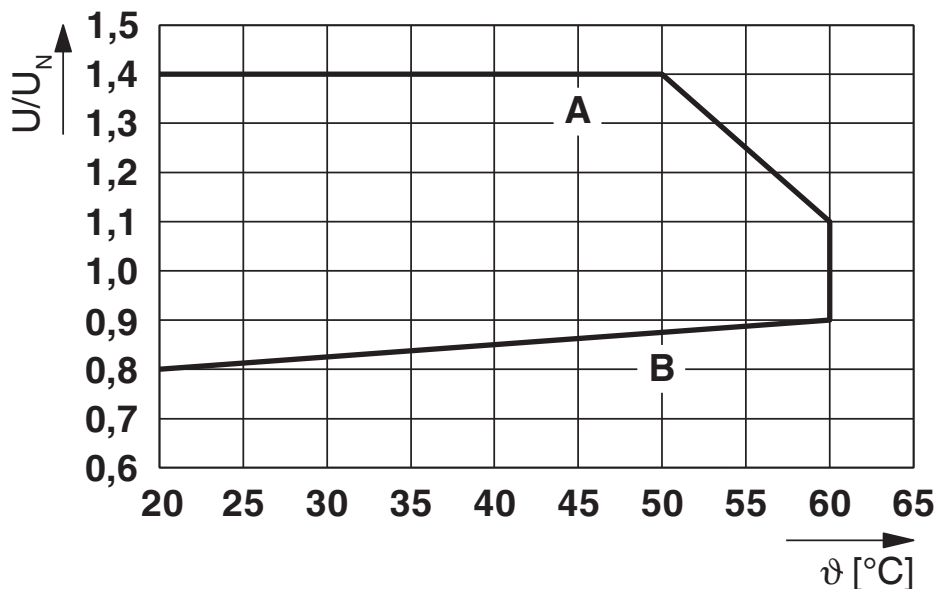
Standards/regulations	EN 61810-1
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## Mounting

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

Drawings

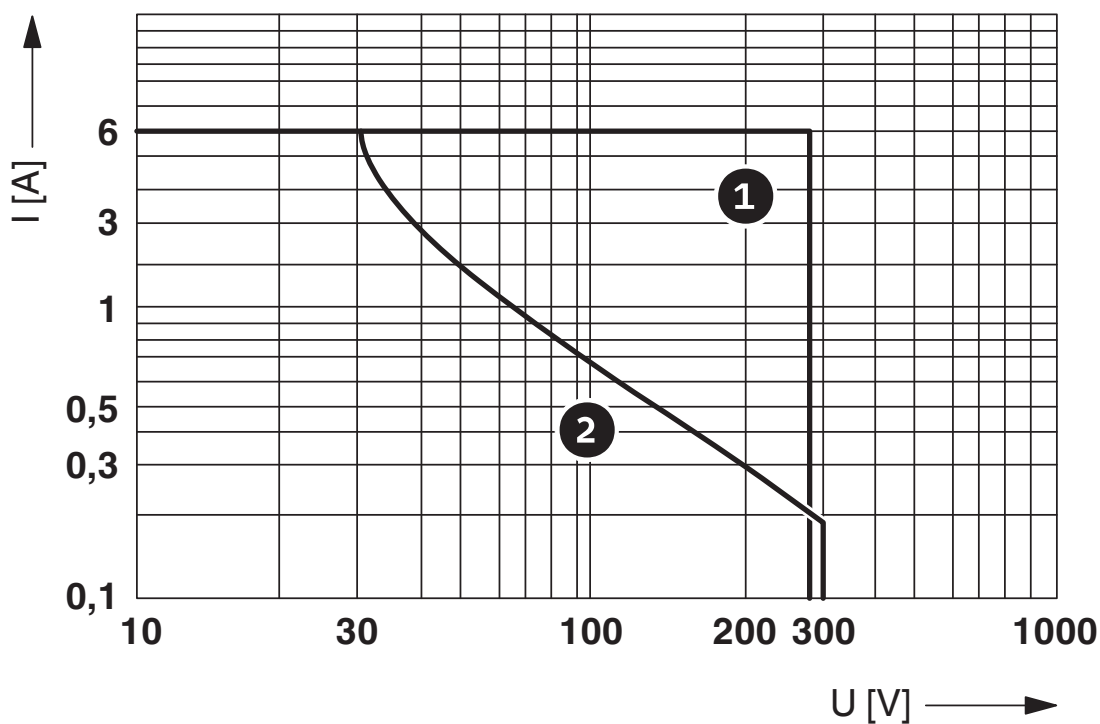
Diagram



Curve A: maximum continuous voltage at limiting continuous current

Curve B: minimum pick-up voltage for pre-excitation with  $U_N$  and limiting continuous current

Diagram



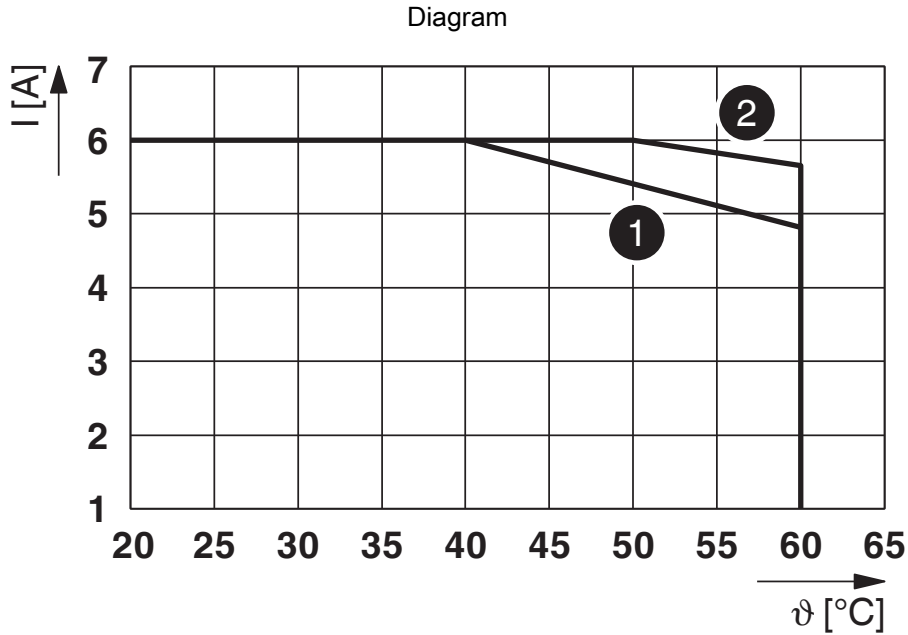
Interrupting rating

Curve 1: AC, ohmic load

Curve 2: DC, ohmic load

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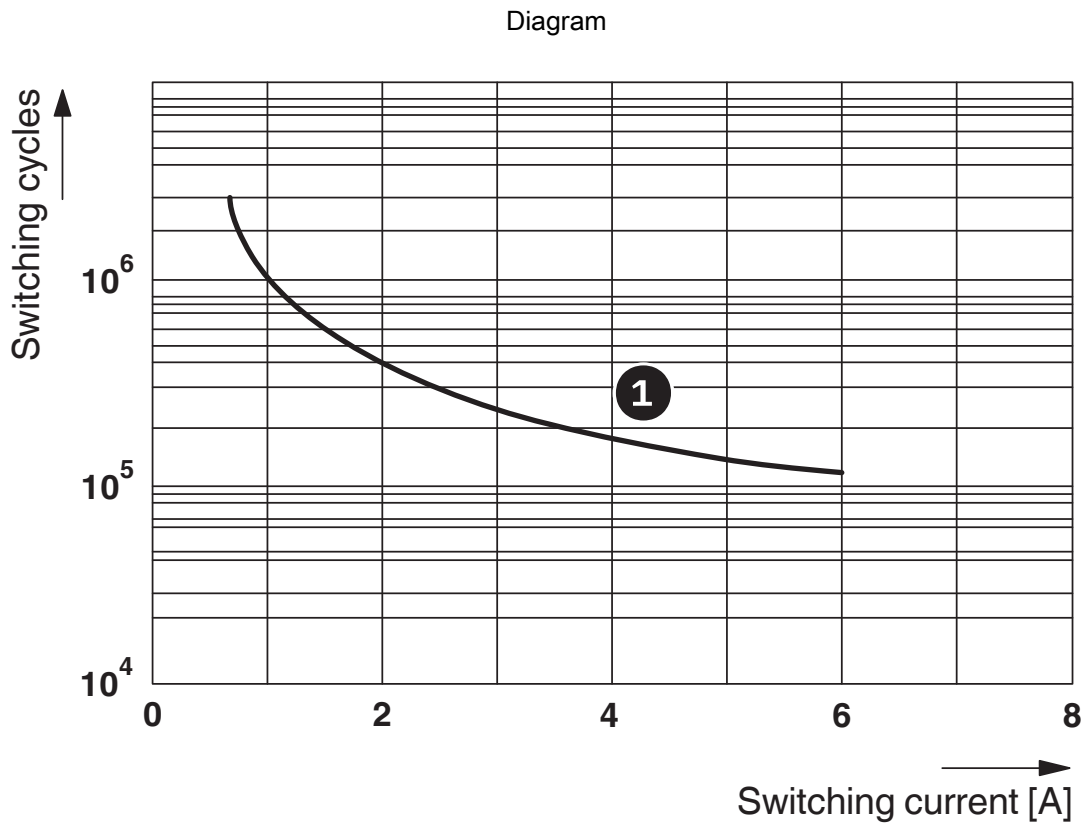
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Contact derating

(1) Aligned without clearance, nominal input voltage  $1.1 \times U_N$

(2) Clearance  $\geq 50$  mm, nominal input voltage  $1.0 \times U_N$



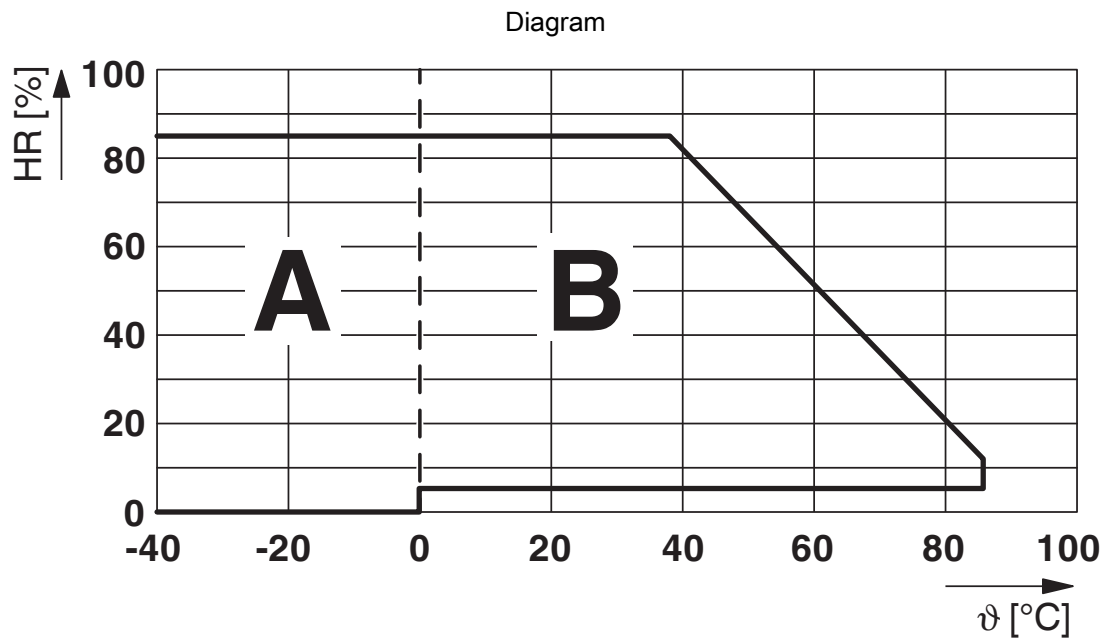
① 250 V AC, Ohmic load

Electrical service life

Diagram



Service life reduction factor with various cos phi



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

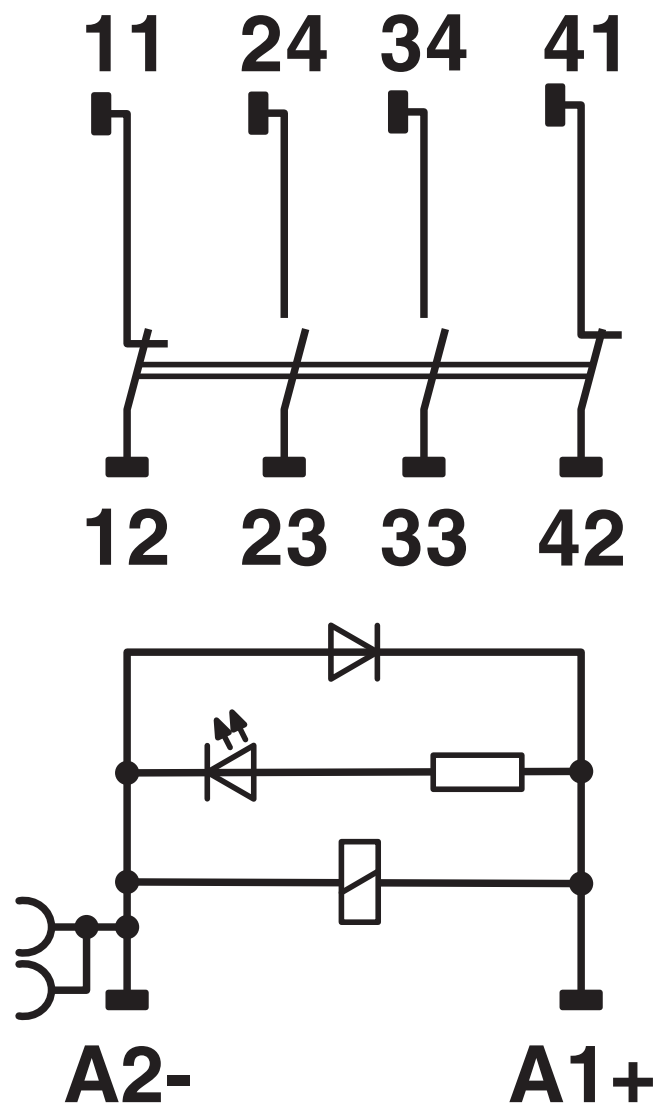
Area B: Condensation at ambient temperatures  $> 0^\circ\text{C}$  must be prevented

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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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1148699>

 **UL Listed**  
Approval ID: FILE E 172140

 **cUL Listed**  
Approval ID: FILE E 172140

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## Classifications

### ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

### ETIM

ETIM 10.0	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
Exemption	7(a), 7(c)-I

### 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.)	Lead(CAS: 7439-92-1)
SCIP	ae288bd-6231-4d69-be6d-0ac61e9f5434

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