RIF-RPT-LDP-24DC/1X2/3X1/AU/FG - Relay module

1148703

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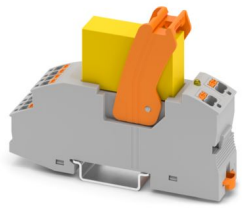


Relay module with Push-in connection, consisting of: relay base with status LED, freewheeling diode, and retaining bracket, safety relay with force-guided contacts in accordance with DIN EN 61810-3, contact switching type: 3 N/O contacts and 1 N/C contact, input voltage: 24 V DC

Commercial data

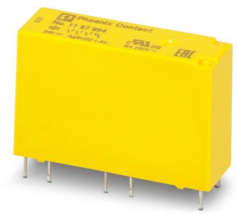
Item number	1148703
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C465
Product key	DK652E
GTIN	4063151142513
Weight per piece (including packing)	76.33 g
Weight per piece (excluding packing)	69.15 g
Customs tariff number	85364110
Country of origin	CN

Set consists of

REL-SR- 24DC/3X1AU/1X2AU/FG - Safety relays

1157954

https://www.phoenixcontact.com/us/products/1157954



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, 3 N/O contacts and 1 N/C contacts

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_{10d}	810000 Cycles (AC15, 250 V / 0.5 A, 1 NO)
	170000 Cycles (AC15; 250 V / 2 A; 1 NO)
	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	28.04.2025

Electrical properties

Maximum power dissipation for nominal condition	0.41 W
Test voltage (Winding/contact)	4 kV_{rms} (50 Hz, 1 min., winding/contact)
Test voltage (open contact)	1.5 kV_{rms} (50 Hz, 1 min., open contact)
Test voltage ()	2.5 kV_{rms} (50 Hz, 1 min., between contacts: 7, 8 to 9, 10)
Test voltage ()	4 kV_{rms} (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_N	24 V DC
Input voltage range in reference to U_N	See derating diagram
Drive and function	monostable

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	3 N/O contacts, 1 N/C contact
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 mm² ... 1.5 mm²
Conductor cross-section flexible	0.14 mm² ... 1.5 mm²
	0.14 mm² ... 1.5 mm² (Ferrule with plastic sleeve)
	0.14 mm² ... 1 mm² (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

Height	96 mm
Depth	67 mm

Material specifications

Flammability rating according to UL 94	V2 (Housing)

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

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

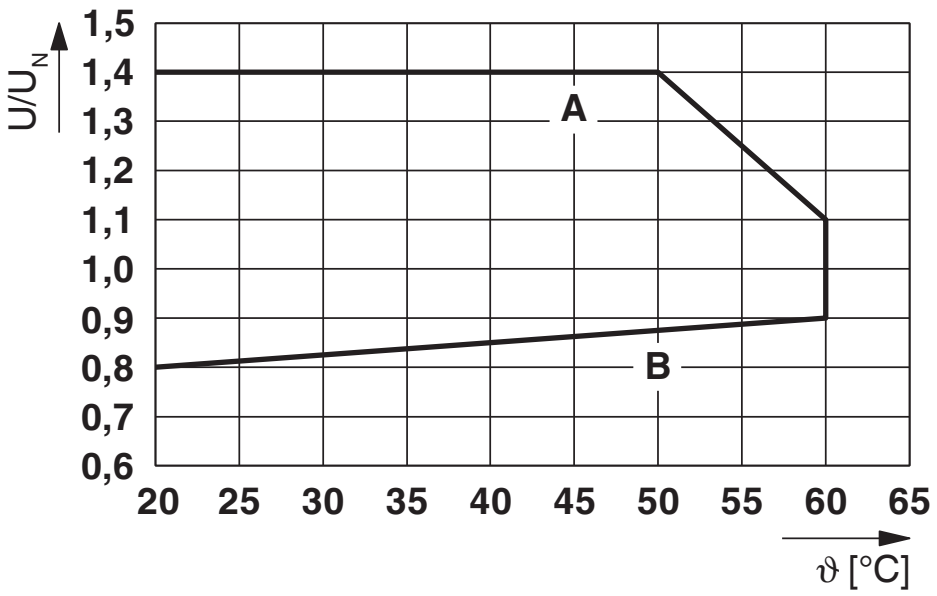
Standards/regulations	EN 61810-1

Mounting

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

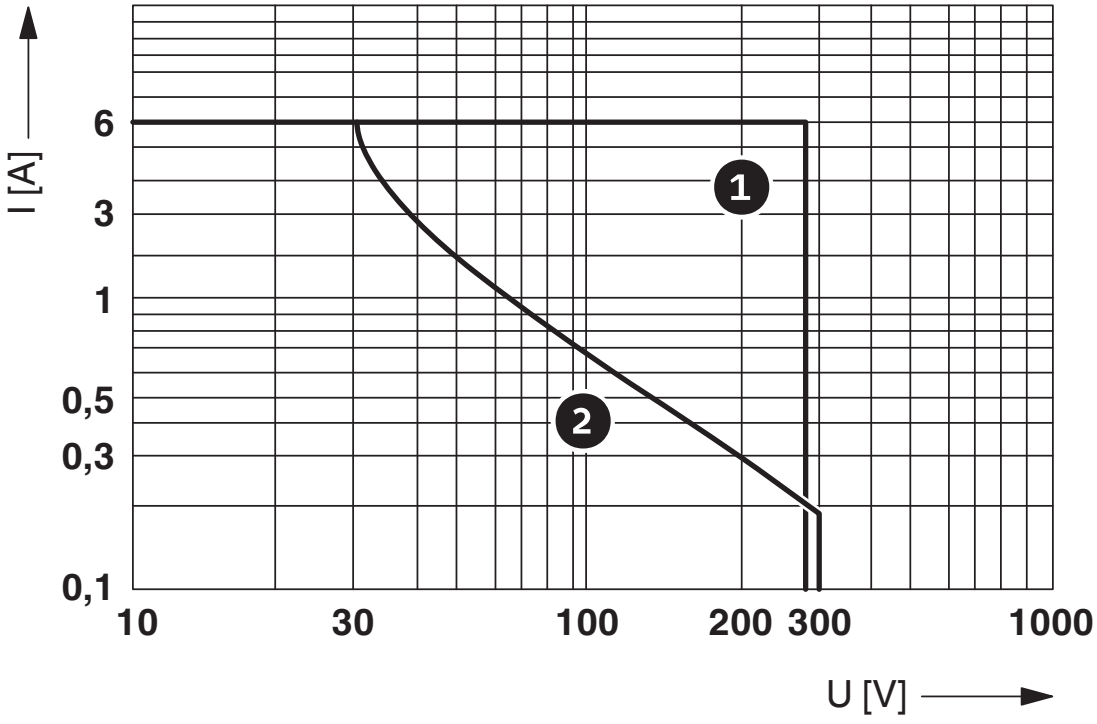
Drawings

Diagram



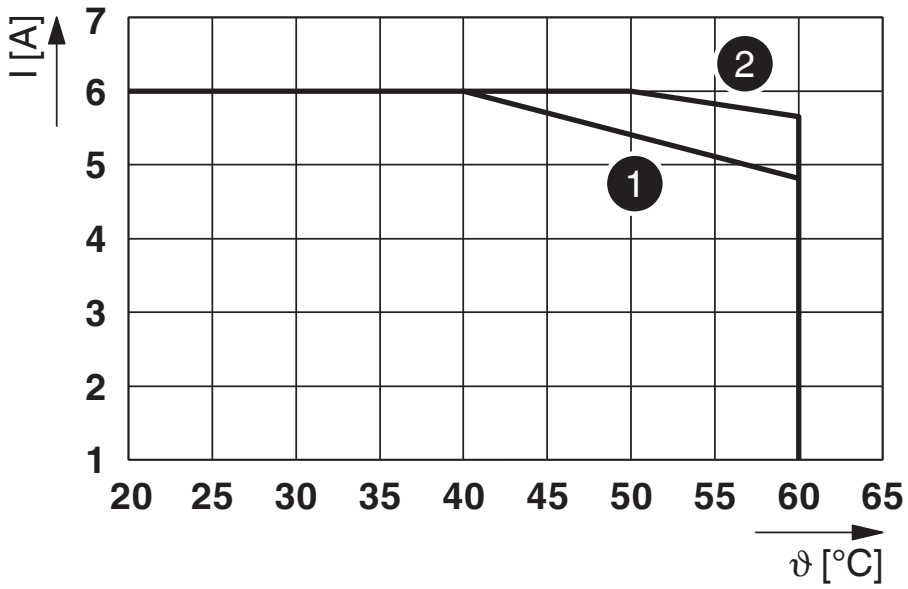
Curve A: maximum continuous voltage at limiting continuous current
Curve B: minimum pick-up voltage for pre-excitation with U_N and limiting continuous current

Diagram



Interrupting rating
Curve 1: AC, ohmic load
Curve 2: DC, ohmic load

Diagram

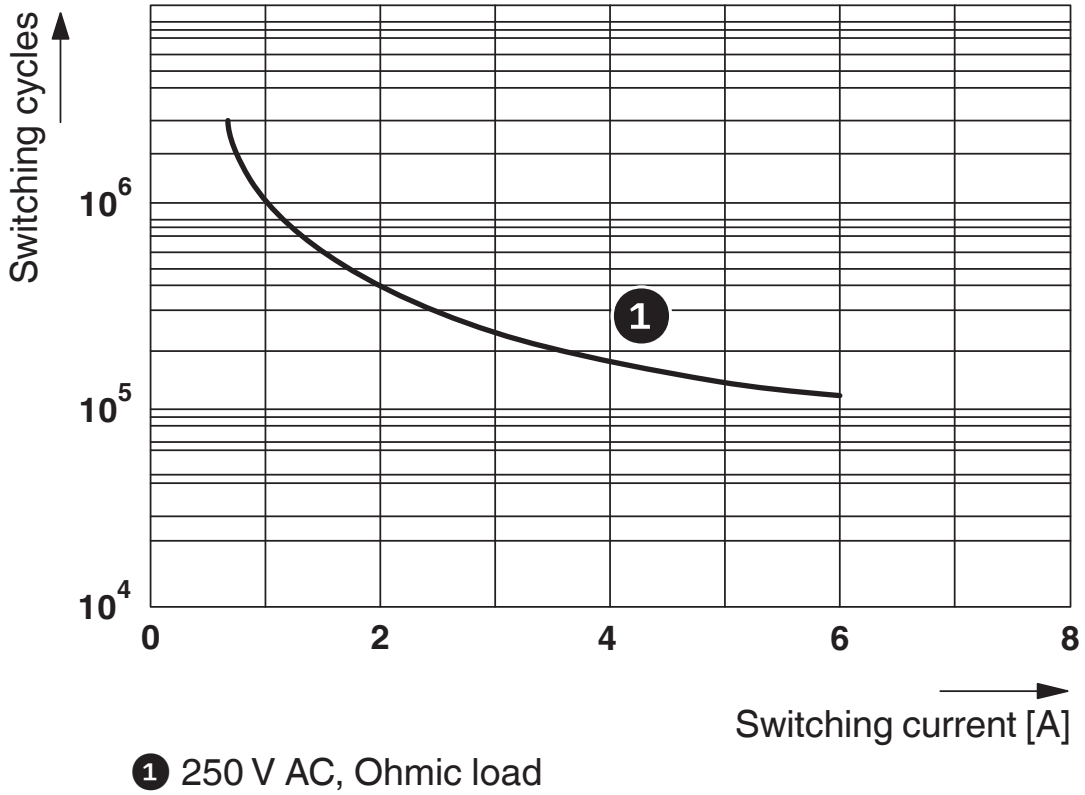


Contact derating

❶ Aligned without clearance, nominal input voltage 1.1 x U_N

❷ Clearance ≥50 mm, nominal input voltage 1.0 x U_N

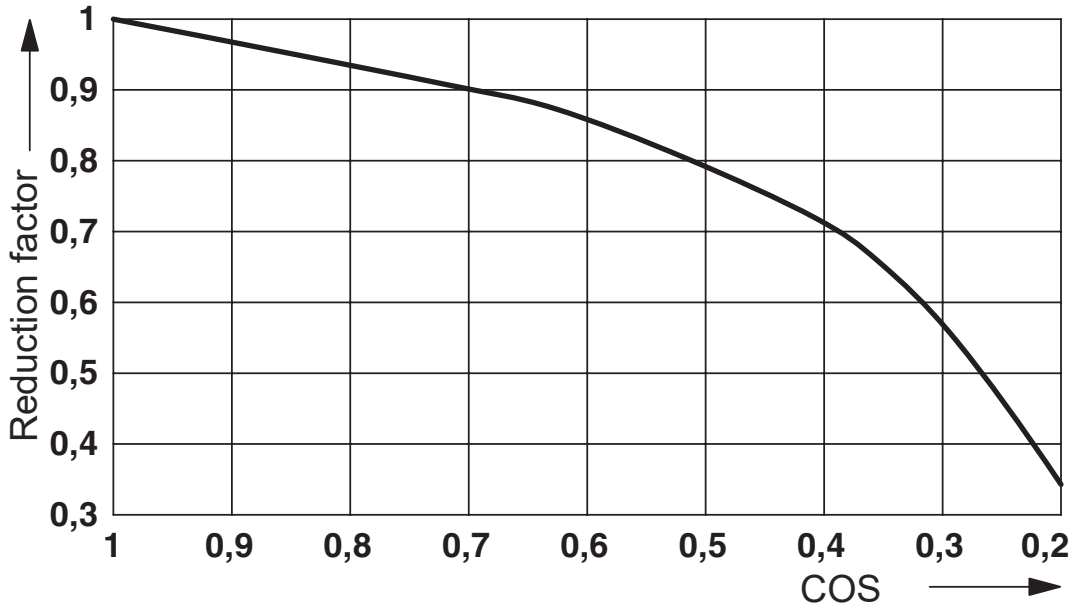
Diagram



❶ 250 V AC, Ohmic load

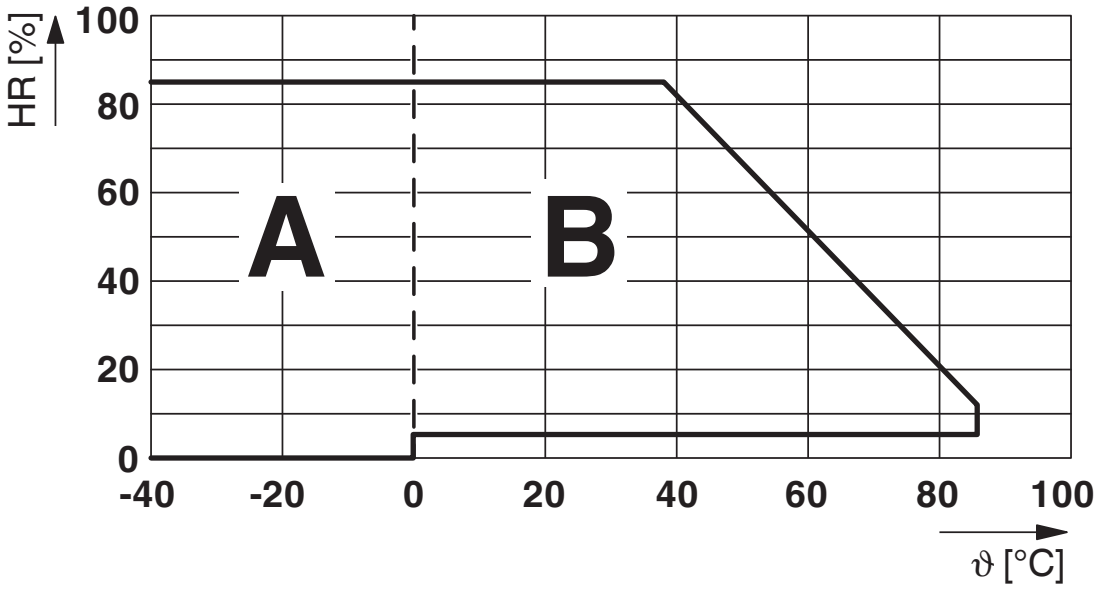
Electrical service life

Diagram



Service life reduction factor with various cos phi

Diagram

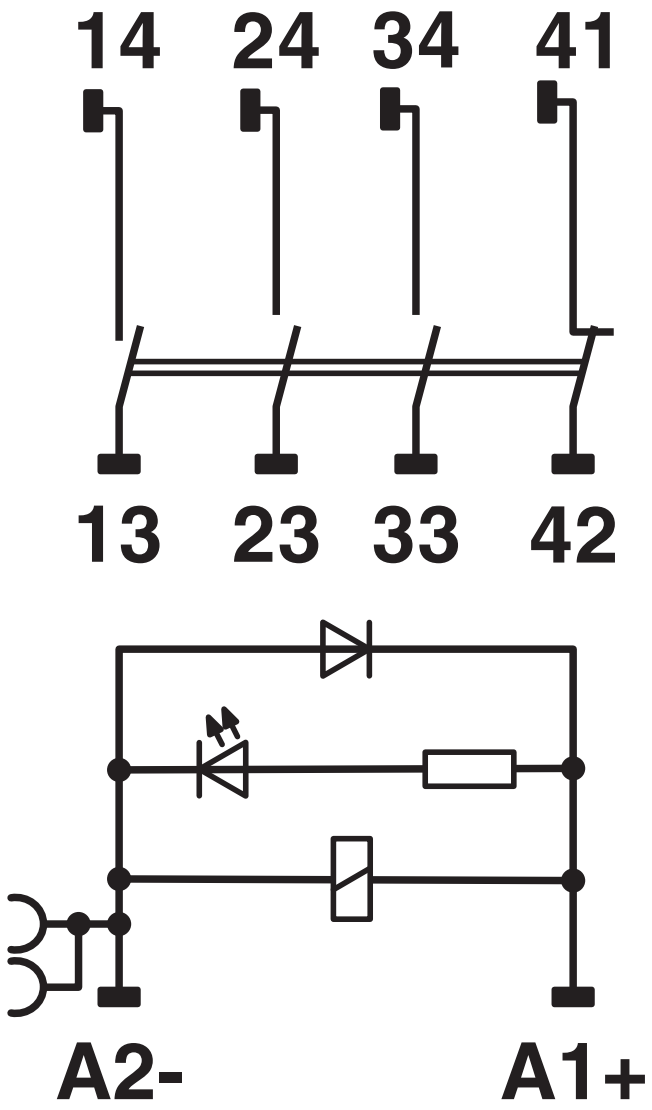


Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures ≤ 0°C must be prevented
Area B: Condensation at ambient temperatures > 0°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 ≤ 25°C.

Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1148703

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

UL Listed
Approval ID: FILE E 172140

cUL Listed
Approval ID: FILE E 172140

Classifications

ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

ETIM

ETIM 9.0	EC001437

UNSPSC

UNSPSC 21.0	39122300

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	b4dd0375-a05a-427a-8312-a7330483c926

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