

EMG 17-REL/SG-B 48/21/P - Relay module



2946654

<https://www.phoenixcontact.com/us/products/2946654>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Relay module, with soldered-in remanence miniature switching relay, with positive switching diode wiring, contacts (AgSnO): small to large loads, 1 changeover contact, input voltage 48 V DC

Commercial data

Item number	2946654
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	C460
Product key	DK61C2
GTIN	4017918118037
Weight per piece (including packing)	46.47 g
Weight per piece (excluding packing)	46.94 g
Customs tariff number	85364190
Country of origin	DE

EMG 17-REL/SG-B 48/21/P - Relay module



2946654

<https://www.phoenixcontact.com/us/products/2946654>

Technical data

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
----------	---

Product properties

Product type	Relay Module
Product family	EMG
Application	Universal
Operating mode	100% operating factor
Mechanical service life	approx. 10^7 cycles

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

Insulation	Safe isolation, reinforced insulation
Overvoltage category	III
Pollution degree	2

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Data management status

Date of last data management	12.09.2025
------------------------------	------------

Electrical properties

Maximum power dissipation for nominal condition	0.41 W
Test voltage (Winding/contact)	4 kV _{rms} (50 Hz, 1 min., winding/contact)

Air clearances and creepage distances between the power circuits

Rated insulation voltage	250 V AC
Rated surge voltage	4 kV

Input data

Coil side

Nominal input voltage U_N	48 V DC
Input voltage range	38.4 V DC ... 52.8 V DC (20 °C)
Drive and function	bistable
Drive (polarity)	polarized
Typical input current at U_N	typ. 8.5 mA
Typical response time	5 ms
Typical release time	5 ms
Pulse time range	30 ms ... 5 s
Coil voltage	24 V DC

EMG 17-REL/SG-B 48/21/P - Relay module



2946654

<https://www.phoenixcontact.com/us/products/2946654>

Protective circuit	Freewheeling diode; Freewheeling diode
	Reverse polarity protection; Polarity protection diode

Output data

Switching

Contact switching type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgSnO
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 100 mA)
	24 V (At 1 mA)
Limiting continuous current	6 A
Maximum inrush current	8 A
Min. switching current	1 mA (at 24 V)
	100 mA (At 5 V)
Interrupting rating (ohmic load) max.	144 W (at 24 V DC)
	43 W (at 48 V DC)
	42 W (at 60 V DC)
	55 W (at 110 V DC)
	100 W (at 220 V DC)
	1500 VA (for 250 V AC)

Switching: when the gold layer is destroyed

Maximum switching voltage	250 V AC/DC
Limiting continuous current	6 A
Maximum inrush current	8 A
Interrupting rating (ohmic load) max.	140 W (at 24 V DC)
	40 W (at 48 V DC)
	35 W (at 60 V DC)
	30 W (at 110 V DC)
	55 W (at 220 V DC)
	1500 VA (for 250 V AC)

Connection data

Coil side

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm ² ... 4 mm ²
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section AWG	24 ... 12

Contact side

Connection method	Screw connection
-------------------	------------------

EMG 17-REL/SG-B 48/21/P - Relay module



2946654

<https://www.phoenixcontact.com/us/products/2946654>

Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm² ... 4 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	24 ... 12

Dimensions

Width	17.5 mm
Height	75 mm
Depth	62.5 mm

Material specifications

Color	green (RAL 6021)
-------	------------------

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-40 °C ... 50 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C

Standards and regulations

Air clearances and creepage distances between the power circuits

Standards/regulations	DIN EN 50178
-----------------------	--------------

Mounting

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

EMG 17-REL/SG-B 48/21/P - Relay module

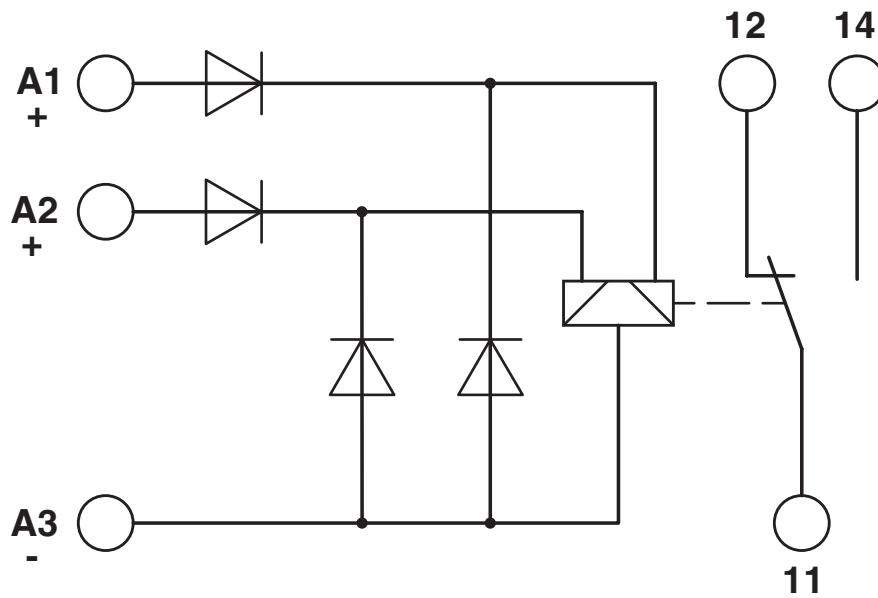
2946654

<https://www.phoenixcontact.com/us/products/2946654>



Drawings

Circuit diagram



EMG 17-REL/SG-B 48/21/P - Relay module



2946654

<https://www.phoenixcontact.com/us/products/2946654>

Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2946654>



EAC

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

EMG 17-REL/SG-B 48/21/P - Relay module



2946654

<https://www.phoenixcontact.com/us/products/2946654>

Classifications

ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

ETIM

ETIM 9.0	EC001437
----------	----------

UNSPSC

UNSPSC 21.0	39122300
-------------	----------

EMG 17-REL/SG-B 48/21/P - Relay module



2946654

<https://www.phoenixcontact.com/us/products/2946654>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a)

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	61a7def1-2f5c-4146-87b1-56032ebd7fbf

Phoenix Contact 2025 © - all rights reserved

<https://www.phoenixcontact.com>

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