PEM-02 ELECTROMAGNETIC RELAY

INSTRUCTION MANUAL

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DESCRIPTION

Electromagnetic relays may be used in various applications where load current increase is needed. The relays assure voltaic insulation between a control unit and a load circuit. The relays are fitted with NO / NC dead contacts. It is possible to connect voltage of 0 ÷ 250 V AC to the contacts.

FEATURES

- Load current increase,
- Capability of changing motor rotation directrion by means of two dependent and separated contacts,
- Applicable together with control systems powered with typical voltages: 12, 24, 48, 110 V AC/DC, 230 V AC,
- Maximum load current 2 x 8 A,
- Relay state indicator.

TECHNICAL DATA

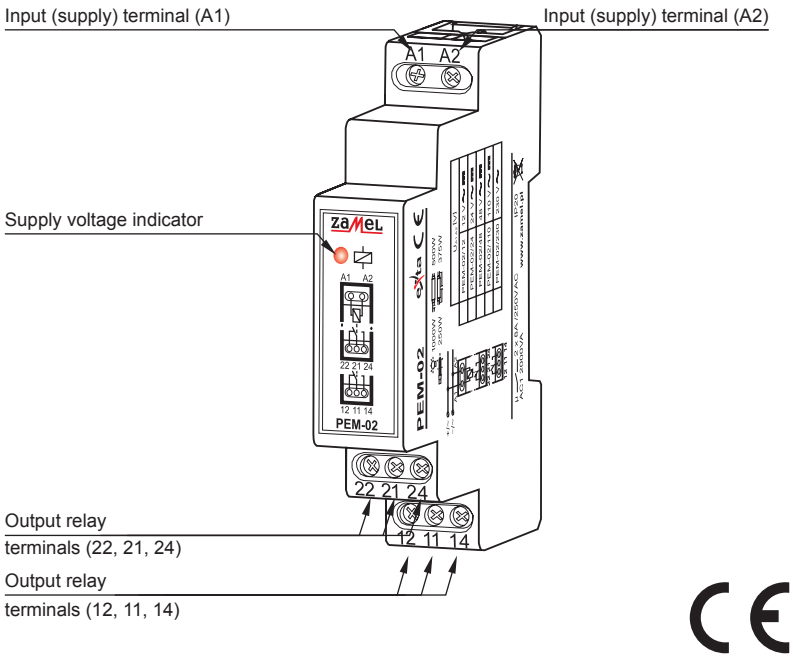
	PEM-02				
	/012	/024	/048	/110	/230
Input (supply) terminals:	A1, A2				
Input rated voltage:	12 V AC/DC	24 V AC/DC	48 V AC/DC	110 V AC/DC	230 V AC
Input voltage tolerance:	-15 ÷ +10 %				
Nominal frequency:	50 / 60 Hz				
Rated current:	34 mA AC	15,2 mA AC	8 mA AC	4,5 mA AC	21,5 mA AC
Output switch on indicator:	LED red				
Output (load) terminals:	11, 12, 14 and 21, 22, 24				
Control element:	2 x NO/NC - 8 A / 250 V AC				
Numer of terminal clamps:	8				
Section of connecting cables:	0,2 ÷ 2,5 mm^2				
Ambitne temperature range:	-20 ÷ +45 °C				
Operating position:	free				
Mounting:	TH 35 rail (PN-EN 60715)				
Protection degree:	IP20				
Protective class:	II				
Overvoltage category:	II				
Pollution degree:	2				
Dimensions:	monomodular (17,5 mm) 90x17,5x66 mm				
Weight:	0,07 kg				
Reference standards:	PN-EN 60669-1 PN-EN 60669-2-1 PN-EN 61000-4-2,3,4,5,6,11 PN-EN 61095:2004				

CAUTION

The device is designed for one-phase installation and must be installed in accordance with standards valid in a particular country. The device should be connected according to the details included in this operating manual. Installation, connection and control should be carried out by a qualified electrician staff, who act in accordance with the service manual and the device functions. Disassembling of the device is equal with a loss of guarantee and can cause electric shock. Before installation make sure the connection cables are not under voltage. The cruciform head screwdriver 3,5 mm should be used to instal the device. Improper transport, storage, and use of the device influence its wrong functioning. It is not advisable to instal the device in the following cases: if any device part is missing or the device is damaged or deformed. In case of improper functioning of the device contact the producer.

The symbol stands for selective collection of electrical and electronic devices. Placing used devices with other waste is not allowed

APPERANCE



MOUNTING, FUNCTIONING

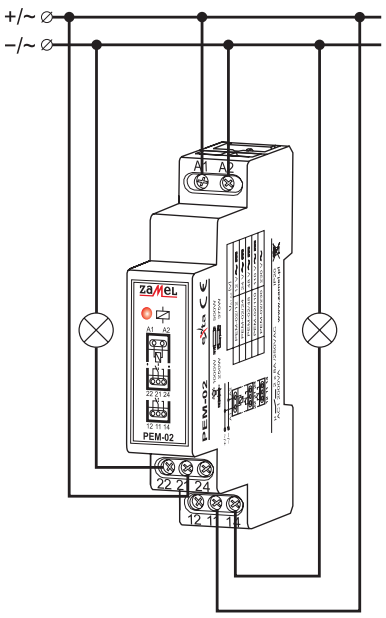
1. Disconnect the electric network by means of appropriate cut-off, currentlimiting circuit-breaker or separator.
2. **Check if there is no any voltage between power leads by means of an appropriate gauge.**
3. Mount the device on TH 35 rail.
4. Connect the system leads according to the electrical diagram.
5. Connect power supply circuit.

After power supply has been connected to A1, A2 terminals, the device, via the control circuit, makes the relay output contacts 11–14 and 21–24 closed. When power supply has been OFF, the relay will be OFF and the output contacts 11–12 and 21–22 will be closed.

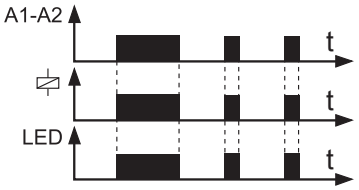
RELAY CAPACITY

2000 W
1000 W
500 W
750 W

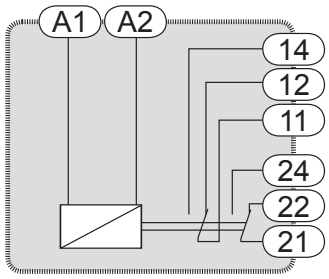
CONNECTING



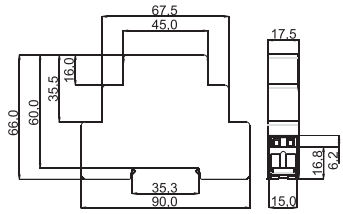
TIME COURSE



INNER DIAGRAM



DIMENSIONS



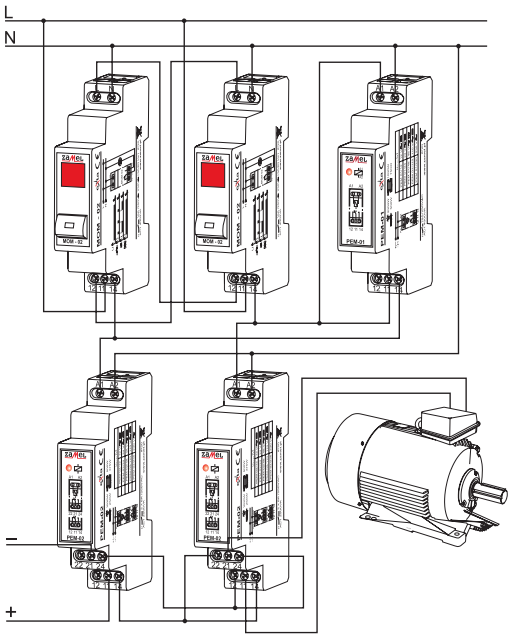
PRODUCT FAMILY

The PEM-01 electromagnetic relay is a member of the PEM-xx family.

PEM-xx/xxx

- Input voltage: 12V, 24V, 48V, 110V, 230V
- Device version: 01 – input contacts 1 x 16 A; 02 – input contacts 2 x 8 A
- Device type

EXAMPLE OF INSTALLATION



The motor control system with rotation direction changing.

The DC motor is supplied by means of two PEM-02 relays. The first one controls power supply and the second controls voltage polarity changing. Two bistable control modules MOM-02 control the PEM-02 relays. Pressing first MOM-02 module button causes e.g. clockwise motor rotation and switch-ON interlock of the second MOM-02 module. In order to change motor rotation direction it is necessary to release the button of the first module. The motor will stop. Then it is necessary to press the second module button which will cause switching the motor in anticlockwise direction. An additonal PEM-01 relay is needed to supply the relay cntrolling the motor power supply correctly when the second MOM-02 module is ON.

GUARANTEE CARD

There is 24 months guarantee on the product

Salesman stamp and signature, date of sale

1. ZMIE ZAMEL SP. J. assures 24 months guarantee for the product.
2. The manufacturer's guarantee does not cover any of the following actions:
   a) mechanical damage during transport, loading / unloading or under other circumstances,
   b) damage caused by incorrect product mounting or misuse,
   c) damage caused by unauthorised modifications made by the PURCHASER or any third parties to the product or any other devices needed for the product functioning,
   d) damage caused by Act of God or any other incidents independent of the manufacturer.
3. The PURCHASER shall lay any claims in writing to the dealer or ZMIE ZAMEL SP. J.
4. ZMIE ZAMEL SP. J. is liable for processing any claim according to current Polish legislation.
5. ZMIE ZAMEL SP. J. shall process the claim at its own discretion: product repair, replacement or money return.
6. The manufacturer's guarantee is valid in the Republic of Poland.
7. The PURCHASER's statutory rights in any applicable legislation whether against the retailer arising from the purchase contract or otherwise are not affected by this warranty.

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