



**TECHNICAL MANUAL**  
**Time relay RT-2C 2 timers**  
**2 timed contacts EKF**

## 1 DESCRIPTION

Time relay RT-2C EKF is an electronic switching device with an adjustable time setting. The time relay is designed to create cyclic automation scenarios. Timers can be adjusted using dials on the front panel of the relay.

The time relay complies with IEC 61000-4-4:2004 requirements. The relay can be used in industrial and household automation, e.g. in HVAC and lighting systems.

## 2 TECHNICAL DATA

Table 1

Characteristics	Values	
	RT-2C	RT-2C-12-240
Rated voltage, V	24-240 AC/DC	12-240 AC/DC
Rated pulse voltage, V AC	380	
Power consumption	AC:≤1.5 VA DC:≤1 W	
Time delay range	0,1 s ... 10 days	
Set-point accuracy, %	≤5	
Repeatability, %	≤0,2	
Power interruption, ms	min 200	
Electrical life, cycles	100 000	
Mechanical life, cycles	1 000 000	
Contacts	2 C/O	
Rated load current	2 x 8 A at 230 V, AC-1	
Interference immunity	3 in accordance with IEC 61000-4-4:2004	

Table 1 continued

Characteristics	Values	
	RT-2C	RT-2C-12-240
Max. altitude above sea level, m	2000	
Degree of protection	IP20	
Pollution degree	3	
Operating temperature, °C	-5 ... 40	
Storage temperature, °C	-25 ... 75	
Connection	Screw terminals, max. conductor cross-section 2,5 mm <sup>2</sup>	
Tightening torque, N*m	0,5	
Mounting	35 mm DIN rail	

### Indication

Green "U" LED:

constantly lit when the relay is powered.

Red «» LED:

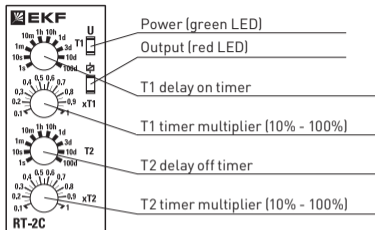
flashes red during timer countdown.

The relay is on, contacts 15-18 (25 - 28) are closed - lit.

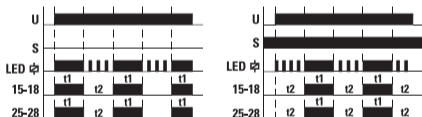
The relay is off, contacts 15-18 (25-28) are open - not lit.

**WARNING!** To repeat the cycle after power off, wait at least 200 ms before powering up the relay.

## Control panel



## Function diagram

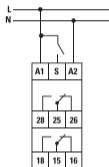


Recycle [NO] After the relay is energized, contacts 15-16 open, and contacts 15-18 close, a countdown (t1) is started. Once the countdown is finished, relay coil is de-energized, contacts 15-18 open, and contacts 15-16 close and the cycle repeats as long as the power is supplied to the relay. The second group of contacts (25, 26, 28) works in conjunction with the first one. When the signal S appears, the t2 timer countdown starts.

### Setup:

- Install and secure the relay in the intended location.
- Connect the relay as per wiring diagram.
- Energize the relay, the "U" LED will light up green.
- Set the required time ranges.

### Wiring diagram



Contacts 16–15–18 and 26–25–28 are linked and when switching, they work in conjunction with each other.

### 3 OVERALL AND INSTALLATION DIMENSIONS

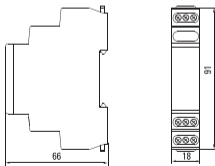


Fig. 1

## **4 OPERATION CONDITIONS**

4.1 Operating temperature: -5°C to +40°C

4.2 Max. altitude above sea level: 2000 m.

## **5 DELIVERY SCOPE**

1. Time relay RT-2C EKF - 1 pc.

2. Technical manual – 1 pc.

## **6 SAFETY REQUIREMENTS**

6.1. Do not operate relays with visible mechanical damage.

6.2. The relays conform to IEC 61140 Class 0 for protection against electrical shock and must be installed in Class 1 enclosures or higher.

## **7 MAINTENANCE**

7.1. For maintenance, follow national safety rules for operation of electrical installations.

7.2. Under normal operating conditions, visually inspect the relay and check the set modes and trigger time every 6 months. Tighten the screw terminals, as they may become loose due to cyclical changes in the ambient temperature and material flow.

7.3 The relay must be installed and maintained by qualified personnel.

7.4 Follow the wiring diagram when installing the relay.

7.5 Do not install the relay without protective cover in any area exposed to water or direct sunlight.

## **8 STORAGE AND TRANSPORTATION**

8.1 Relays can be transported by any means of enclosed transport that protects the packaged goods from mechanical impact and weather exposure.

Relays shall be stored in the original package indoors at the ambient temperatures from -25°C to +75°C and max. relative humidity of 80% at +25°C.

## 9 MANUFACTURER'S WARRANTY

9.1 The manufacturer guarantees the relays comply with the declared characteristics, provided that the consumer observes the operation, transportation and storage conditions and requirements.

9.2 Warranty period: 7 years from the date of sale.

9.3 Shelf life: 7 years.

9.4 Service life: 10 years.

**Manufacturer:** For information, refer to the product package.

**Importer and EKF trademark service representative:**

EKF ELECTRICAL SOLUTION – FZCO, Dubai Silicon Oasis, DDP, Building A2, Dubai, United Arab Emirates.

**Importer and EKF trademark service representative on the territory of the Russian Federation:** OOO «Electroresheniya», Otradnaya st., 2b bld. 9, 5th floor, 127273, Moscow, Russia.

Tel.: +7 (495) 788-88-15.

**Importer and EKF trademark service representative on the territory of the Republic of Kazakhstan:**

TOO «Energoresheniya Kazakhstan», Kazakhstan, Almaty, Bostandyk district, Turgut Ozal st., 247, apt 4.

## 10 CERTIFICATE OF ACCEPTANCE

The time relay has been manufactured in compliance with the effective laws and regulations and has been approved for operation.

Date of manufacture:

For information, refer to the product package.

Quality control stamp



EAC



v3

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