

ELMARK[®]

The Brand of Electricity

ELECTRO-MAGNETIC RESIDUAL CURRENT DEVICES (RCD)

JEF



Description:

The residual current device works with no extra power supply to the operating mechanism. It compares the magnitude of the currents through the neutral and phase conductors. The conductors are coiled on toroid and together with the secondary winding form a measurement transformer. The power conductors are coiled in such a way that the magnetic fields generated at electrical current flow through them are mutually neutralized. At failure in the insulation of some of the conductors or at presence of a person under voltage, the system is misbalanced and the magnetic fields can not be neutralized. This residual field generates in the secondary current winding, called current leakage. The device breaks when the value of this current exceeds the limit value of the residual current breaker.

Functions:

- Switching off heavy-loaded electrical circuits at insulation damage of the conductors to the consumers
- Switching off heavy-loaded electrical circuits at presence of a person under voltage
- Used to protect not only particular consumers/ circuits, but also the whole panel
- Remarkable with high reliability of current characteristics
- Control: manual switching on and automatic switching off at exit failure

Technical data:

- Rated operating voltage: 230/400V; 50/60 Hz
- Rated current: according to the table
- Responsiveness: 30; 300mA
- Time delay until break: <0.1s at I Δ n and <0.04s at 2I Δ n
- Surge voltage wear resistance: $\geq 2000V$
- Short circuit current wear resistance: 4500A, 6000A
- Joining terminal: flat (tunnel) screw terminal made of 1.5 coldly draw-plated plane Q235A
- Type of the plastic:
 - - material: self-extinguishing nylon PA66
 - - permittivity strength: >18MV/m
- Contact head: silver graphite CAg (5)
- Static contact: pure copper T2Y2 type
- Electrical wear resistance (number of cycles): ≥ 5000
- Mechanical wear resistance (number of cycles): ≥ 10000

TECHNICAL SPECIFICATION

RESIDUAL CURRENT DEVICES

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- IP code: IP>20
- Indication for operating (switched on) position
- Plastic material of the breakers of UV rays and nonflammable
- Ambient temperature: -10°C + 65°C
- Installation altitude: up to 2000m

Variants:

Type	Number of poles	Breaking capacity (kA)	Rated current I _n (A)	Packing/ Box (pcs)	Leakage current I _{Δn} (mA)	Catalogue number
JEF	2P	4.5	10	1/60	300	40713JEF
JEF	2P	4.5	10	1/60	30	40710JEF
JEF	2P	4.5	16	1/60	300	40718JEF
JEF	2P	4.5	20	1/60	300	40794JEF
JEF	2P	4.5	25	1/60	300	40723JEF
JEF	2P	4.5	32	1/60	300	40733JEF
JEF	2P	4.5	32	1/60	30	40761JEF
JEF	2P	4.5	63	1/60	300	40763JEF

Standards:

- EN 61008-1
- EN 61008-2

