VRL7E TypeAC RCBO

VRL7E RCBO

Application

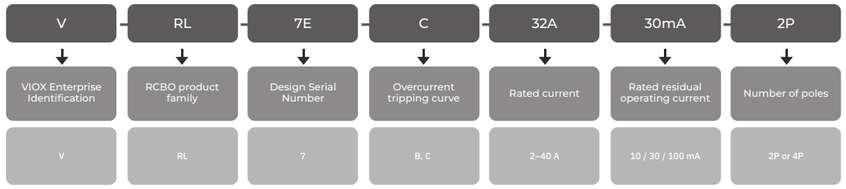
The VRL7E Electronic Residual Current Circuit Breaker with Overcurrent Protection is designed for AC 230 V, 50/60 Hz final distribution circuits.
It combines residual-current, overload and short-circuit protection in one compact device, helping protect people against electric shock while reducing the risk of electrical fires and damage to cables and equipment.
The electronic Type AC residual-current detection system responds to sinusoidal alternating residual currents. B and C tripping characteristics are available for different circuit and load requirements.
Suitable for residential, commercial and light-industrial distribution boards. The device features a 1P+N configuration and is designed for installation on a standard 35 mm DIN rail.

Product Features

- Electronic Type AC RCBO providing residual-current, overload and short-circuit protection in compliance with IEC/EN 61009-1.
- 1P+N, AC 230 V design with 2–40 A ratings, B/C tripping curves and 10, 30 or 100 mA sensitivities.
- 4.5 kA short-circuit capacity, 4 kV impulse withstand voltage and integrated fault-current indication.
- 35 mm DIN-rail mounting with cable, pin-type busbar and U-type busbar connection options.

Ordering Code

MODEL CONFIGURATION REFERENCE



Basic Parameters

Parameter	Specification
Standard	IEC/EN 61009-1
Operating mode	Electronic type
Residual-current type	Type AC
Thermomagnetic release characteristic	B, C
Rated current In	2 A, 4 A, 6 A, 10 A, 16 A, 20 A, 25 A, 32 A, 40 A
Number of poles	1P+N
Rated operational voltage Ue	230 V AC
Rated frequency f	50/60 Hz
Rated residual operating current IΔn	10 mA, 30 mA, 100 mA
Rated residual making and breaking capacity IΔm	500 A
Rated short-circuit capacity Icn	4.5 kA
Break time at IΔn	≤0.1 s
Rated impulse withstand voltage Uimp (1.2/50 μs)	4 kV
Dielectric test voltage at rated frequency, 1 min	2 kV
Rated insulation voltage Ui	250 V
Pollution degree	2

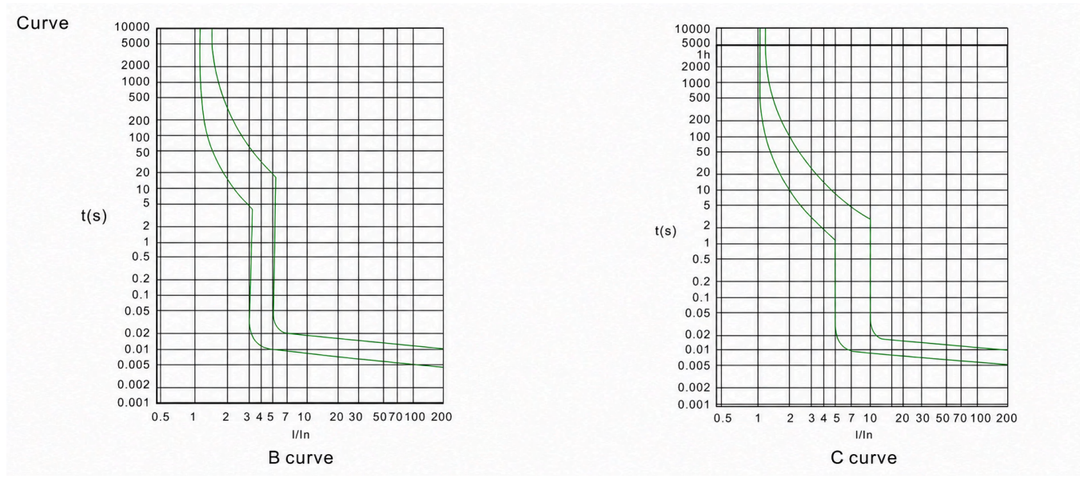
Model Selection

Selection Item	Available Options
Series	VRL7E electronic RCBO
Tripping characteristic	B or C
Rated current In	2 A, 4 A, 6 A, 10 A, 16 A, 20 A, 25 A, 32 A, 40 A
Rated residual operating current IΔn	10 mA, 30 mA, 100 mA
Example model	VRL7E-B16-10 — B curve, 16 A, 10 mA
Example model	VRL7E-C20-30 — C curve, 20 A, 30 mA
Example model	VRL7E-C40-100 — C curve, 40 A, 100 mA

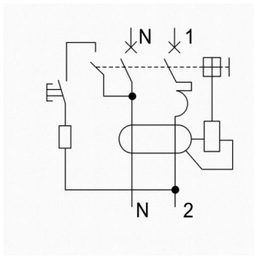
Mechanical Installation

Parameter	Specification
Electrical life	4,000 operations
Mechanical life	10,000 operations
Fault-current indicator	Yes
Degree of protection	IP20
Ambient temperature	−5 °C to +40 °C; daily average ≤35 °C
Storage temperature	−25 °C to +70 °C
Terminal connection type	Cable / pin-type busbar / U-type busbar
Cable terminal capacity, top/bottom	25 mm² (AWG 18–5)
Busbar terminal capacity, top/bottom	25 mm² (AWG 18–3)
Mounting	35 mm DIN rail to EN 60715; fast-clip device
Supply connection	From top

Time-Current Tripping Characteristics



Internal Wiring Diagram



Technical Figure