



VKL11B RCCB 2P



VKL11B RCCB 4P

Application

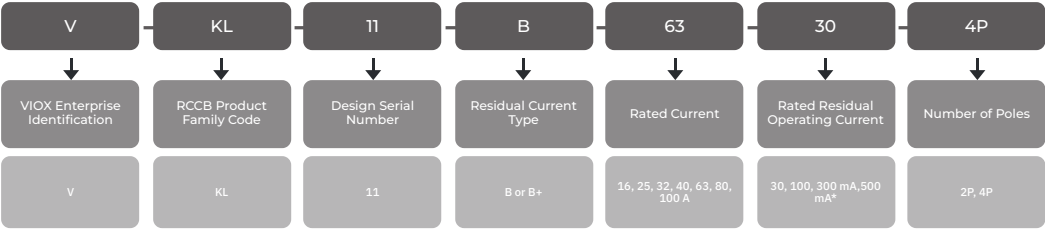
The VKL11B Type B and VKL11B+ Type B+ Residual Current Circuit Breakers provide universal residual-current protection for AC 50/60 Hz electrical installations that may generate alternating, pulsating DC or smooth DC residual currents. Type B detects residual currents with frequencies up to 1 kHz, while Type B+ extends the detection range up to 20 kHz and provides enhanced protection for installations with high-frequency leakage currents. Designed for domestic, commercial and industrial applications using frequency converters, photovoltaic and UPS systems, electric vehicle charging equipment, medical equipment and variable-speed machinery. Available in 2P and 4P configurations with rated voltages of 230/240 V AC and 400/415 V AC, and rated currents from 16 A to 100A. The Type B and Type B+ electronic detection function is voltage dependent. The RCCB must be used together with suitable overload and short-circuit protection.

Product Features

- Designed according to IEC/EN 62423 and IEC/EN 61008-1; the Type B+ version additionally references VDE 0664-400.
- Detects alternating, pulsating DC and smooth DC residual currents, including high-frequency components up to 1 kHz for Type B and 20 kHz for Type B+.
- Instantaneous, K short-time delayed and T selective tripping versions are available, subject to the selected type and residual-current rating.
- 10 kA rated conditional short-circuit current, 4 kV impulse withstand voltage, red/green position indication and top or bottom power entry.

Ordering Code

MODEL CONFIGURATION REFERENCE



Technical Specifications

Item	Specification
Product Versions	Type B and Type B+ RCCB
Design Standards	IEC/EN 62423, IEC/EN 61008-1, OVE E8601; Type B+ additionally references VDE 0664-400
Number of Poles	2P, 4P
Rated Voltage (Un)	2P: 230/240 V AC; 4P: 400/415 V AC
Rated Frequency	50/60 Hz
Mode of Operation	Type A functionality: voltage independent; Type B/B+ functionality: voltage dependent
Electronic Operating Voltage	50-264 V AC
Test Circuit Voltage Range	2P: 184-264 V AC; 4P: 184-440 V AC
Rated Current (In)	16, 25, 32, 40, 63, 80, 100 A
Detected Residual Currents	Alternating, pulsating DC and smooth DC residual currents
High-Frequency Detection	Type B: up to 1 kHz; Type B+: up to 20 kHz
Rated Insulation Voltage (Ui)	500 V
Rated Impulse Withstand Voltage (Uimp)	4 kV (1.2/50 μs)
Rated Conditional Short-Circuit Current (Icn)	10 kA
Rated Making and Breaking Capacity (Im)	1,500 A
Peak Withstand Current	3 kA (8/20 μs); 5 kA for the selective version
Electrical Isolation	Contact gap greater than 4 mm
Maximum Backup Fuse	100 A gG/gL for short-circuit and overload protection
Electrical Endurance	≥2,000 operating cycles
Mechanical Endurance	≥4,000 operating cycles
Degree of Protection	IP20
Terminal Type	Open/lift terminals
Terminal Capacity	1-25 mm²
Terminal Tightening Torque	2-2.5 N·m
Busbar Thickness	0.8-2 mm

Technical Specifications

Item	Specification
Storage and Transport Temperature	-40°C to +70°C
Climatic Resistance	According to IEC/EN 61008
Contact Position Indicator	Mechanical red/green indicator
Power Entry	Top or bottom
Mounting Position	Any position

TYPE B / B+ SELECTION

Variant	Residual-Current Detection	Frequency Range	Additional Characteristic
Type B	Alternating, pulsating DC and smooth DC residual currents	Up to 1 kHz	Universal current-sensitive RCCB
Type B+	Full Type B detection capability	Up to 20 kHz	Additional tripping values below 420 mA

TRIPPING OPTIONS AND RESIDUAL-CURRENT RATINGS

Time Characteristic	Type B - Rated IΔn	Type B+ - Rated IΔn
Instantaneous	30, 100, 300, 500 mA	30, 100, 300 mA
K short-time delayed (G/ASI)	30, 100, 300, 500 mA	30, 100, 300 mA
T selective	100, 300, 500 mA	100, 300 mA

TRIPPING SENSITIVITY SELECTION

Sensitivity	Selection Guidance
30 mA	Additional protection against electric shock/direct contact
100 mA	Protection against indirect contact when coordinated with the earthing system (IΔn < 50/R)
300 mA	Protection against indirect contact and fire risks caused by insulation faults
500 mA	Available only for specified Type B instantaneous, K-delayed and T-selective versions; select according to project protection coordination and local requirements

Outline and Installation Dimensions (mm)

