



VKL11 A-EV RCCB 2P



VKL11 A-EV RCCB 4P

Application

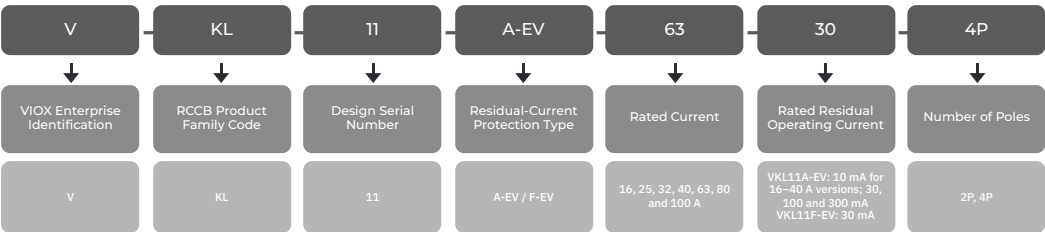
The VKL11-EV Series Residual Current Circuit Breakers are specially designed for Mode 3 electric vehicle charging installations. The series includes the VKL11A-EV Type A EV RCCB and the VKL11F-EV Type F EV RCCB, providing two protection levels for different EV charging requirements. Both versions detect sinusoidal AC and pulsating DC residual currents and incorporate smooth DC residual-current detection with a maximum tripping threshold of 6 mA. The VKL11A-EV provides instantaneous protection for standard EV wall boxes and charging stations. The VKL11F-EV additionally detects mixed-frequency residual currents and uses short-time delayed tripping to reduce unwanted operation caused by transient leakage currents. Available in 2P and 4P configurations with rated currents from 16 A to 100 A. The RCCB must be installed together with suitable overload and short-circuit protection.

Product Features

- Two EV protection versions available: Type A EV for standard charging equipment and Type F EV for circuits with mixed-frequency leakage currents.
- Sinusoidal AC, pulsating DC and 6 mA smooth DC residual-current detection.
- Available in 2P and 4P configurations from 16 A to 100 A, with variant-specific residual-current sensitivities.
- 6/10 kA rated conditional short-circuit current, 6 kV impulse withstand voltage, IP20 protection and top or bottom power entry.

Ordering Code

MODEL CONFIGURATION REFERENCE



VKL11-EV SERIES ELECTRICAL RATINGS

Parameter	VKL11A-EV	VKL11F-EV
Product Type	Type A EV RCCB	Type F EV RCCB
Applicable Standards	IEC/EN 61008-1, IEC 62955	IEC/EN 61008-1, EN 62423, OVE E8601
Number of Poles	2P, 4P	2P, 4P
Rated Current (In)	16, 25, 32, 40, 63, 80, 100 A	16, 25, 32, 40, 63, 80, 100 A
Rated Voltage (Ue)	2P: 240 V AC; 4P: 415 V AC	2P: 240 V AC; 4P: 415 V AC
Rated Insulation Voltage (Ui)	500 V	500 V
Rated Frequency	50/60 Hz	50/60 Hz
Rated Impulse Withstand Voltage (Uimp)	6 kV (1.2/50 μs)	6 kV (1.2/50 μs)
Dielectric Test Voltage	2.5 kV for 1 minute	2.5 kV for 1 minute
Pollution Degree	2	2

VKL11-EV RESIDUAL-CURRENT DETECTION & TRIPPING

Characteristic	VKL11A-EV	VKL11F-EV
Rated Residual Operating Current (IΔn)	10 mA for 2P/4P 16-40 A versions; 30, 100, 300 mA	30 mA
Smooth DC Tripping Threshold	6 mA	6 mA
Sinusoidal AC Residual Current	Detected	Detected
Pulsating DC Residual Current	Detected	Detected
Smooth DC Residual Current	Switch-off at a maximum threshold of 6 mA	Switch-off at a maximum threshold of 6 mA
Mixed-Frequency Residual Current	Not specified	Detected according to Type F / EN 62423
Tripping Time	Instantaneous	Short-time delayed
Break Time at IΔn	≤100 ms (normal type)	10-300 ms (G type)

VKL11-EV MAKING & BREAKING CAPACITY

Rated Current (In)	IΔm - Both Versions	Inc/IΔc - Both Versions	VKL11F-EV Additional Ratings
16, 25, 32, 40 A	500 A	6 kA, 10 kA	Im: 1,500 A; peak withstand current: 3 kA (8/20 μs)
63 A	630 A	6 kA, 10 kA	Im: 1,500 A; peak withstand current: 3 kA (8/20 μs)
80 A	800 A	6 kA, 10 kA	Im: 1,500 A; peak withstand current: 3 kA (8/20 μs)
100 A	1,000 A	6 kA, 10 kA	Im: 1,500 A; peak withstand current: 3 kA (8/20 μs)

VKL11-EV MECHANICAL & INSTALLATION SPECIFICATIONS

Item	Specification - Both Versions
Electrical Endurance	≥2,000 operating cycles
Mechanical Endurance	≥2,000 operating cycles
Fault-Current Indicator	Yes
Degree of Protection	IP20
Ambient Temperature	-25°C to +55°C, with daily average ≤35°C
Storage Temperature	-40°C to +70°C
Terminal Connection Type	Cable/pin-type busbar
Cable Terminal Capacity	25-35 mm²; 18-3/18-2 AWG
Busbar Terminal Capacity	10/16 mm²; 18-8/18-5 AWG
Terminal Tightening Torque	2.5 N·m; 22 in·lb
Mounting	35 mm DIN rail according to EN 60715, with fast-clip device
Power Entry	Top or bottom

Outline and Installation Dimensions (mm)

