

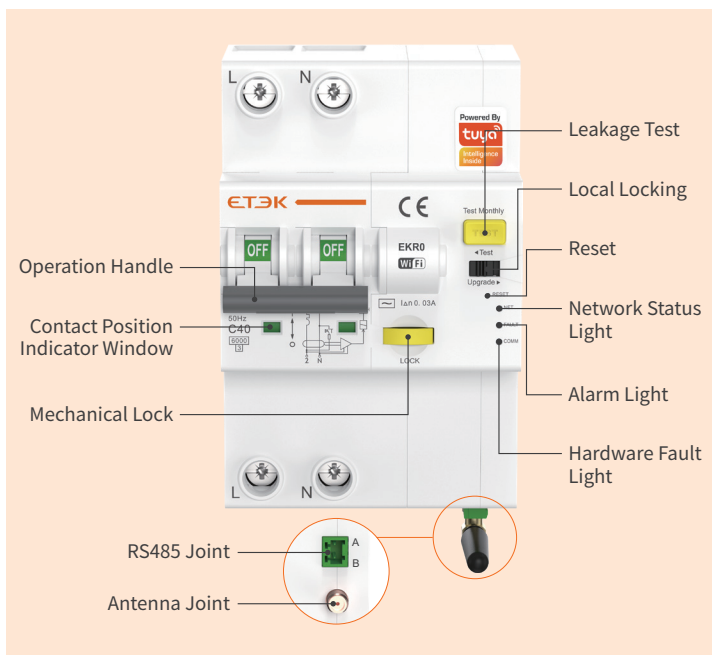
# EKR0 Series

Smart RCBO

ETEK®



## Overview



EKR0 Smart RCBO combines the functions of traditional circuit breakers with modern electronic technology to provide overload, short circuit, and leakage protection for circuits rated at 63A. It also supports remote control through the Tuya App or RS485 communication platform, allowing monitoring and adjustment of various electrical parameters. The EKR0 Smart RCBO has been widely used in smart building power management, industrial power monitoring, and energy efficiency optimization.

## Features

### Traditional Protection

- Overload protection
- Short-circuit protection
- Leakage protection (residual current)

### Advanced Functions

- Remote opening and closing control
- Timing tasks (power on/off scheduling)
- Real-time switch status monitoring
- Electricity metering

### Mechanical Padlock

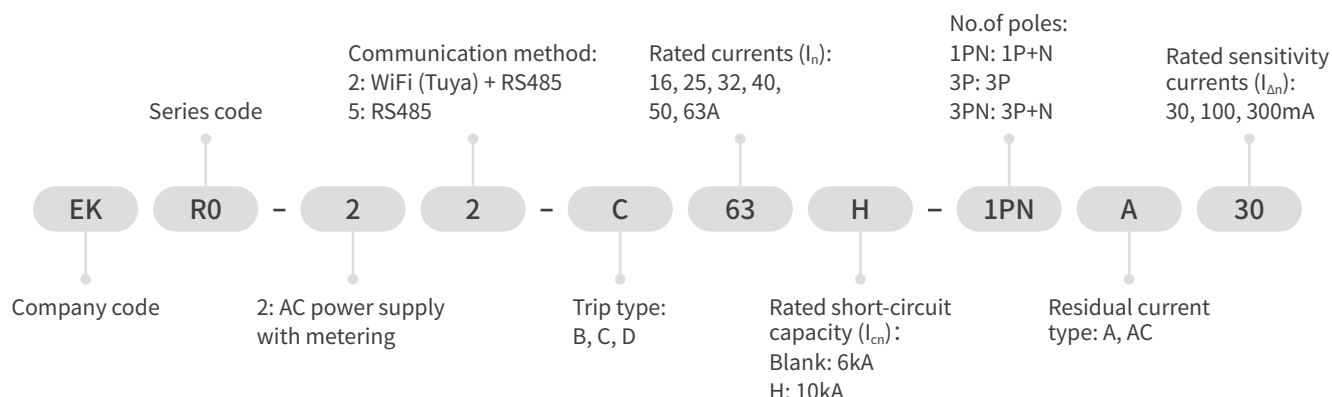
When the mechanical lock is pulled out, the switch enters a locked state, preventing the switch from being turned on. To restore the device, press down the mechanical lock.

### Smart Capabilities

- Remote control through Tuya APP or RS485 platform
- Wi-Fi, RS485 communication options
- Supported Apps: Tuya, Smart Life

### Automatic, Manual Mode

- Automatic mode allow remote control (Tuya APP, RS485).
- Manual Mode, only supports local manual operation

**Instruction of Type Code**

**Technical Parameter**

Standard	IEC/EN 61009-1
Residual current type	A, AC
No. of poles	1P+N, 3P, 3P+N (with switched neutral)
Standby power consumption	< 5W
Status indicator	LED
Rated voltage ( $U_e$ )	230/ 240V (1P+N), 400/415V (3P,3P+N)
Rated frequency	50/60Hz
Rated currents ( $I_n$ )	16, 25, 32, 40, 50, 63A
Rated sensitivity currents ( $I_{\Delta n}$ )	10,30,100,300mA
Residual current off-time under ( $I_{\Delta n}$ )	$\leq 0.1S$
Reted residual making and breaking capacity ( $I_{\Delta m}$ )	500A ( $I_n \leq 50A$ ), $10I_n$ ( $I_n > 50A$ )
Rated short-circuit capacity ( $I_{cn}$ )	6kA, 10kA
Energy limiting class	3
Rated impulse withstand voltage ( $U_{imp}$ ) (1.2/50 $\mu s$ )	4kV
Dielectric test voltage	2kV (50/60Hz, 1 min.)
Trip curve	B: (3-5) $\times I_n$ , C: (5-10) $\times I_n$ , D: (10-20) $\times I_n$
Trip time	$\leq 0.1S$
Electrical life	4000 Cycles
Mechanical life	10000 Cycles
Communication method	WiFi (Tuya), 2.4GHz; RS485, Baud rate: 2400/ 4800/ 9600 (default)
Operational safety	Mechanical padlock, Ensure safety during onsite maintenance
Monitoring physical data	Real-time voltage, Real-time current, Real-time power, Temperature, Switch state, Device operating status
Function description	Overload protection, Short circuit protection, Leakage protection, Over-temperature protection, Multiple timing, Remote control, Electricity metering

Characteristic set up	Over/under voltage action time, Over/under voltage value, Overcurrent value, Voltage imbalance value, Over power value, Phase loss value, Overtemperature value
Protection degree	IP20
Ambient temperature	-25°C to +55°C (Current capacity is significantly reduced at 70°C )
Storage temperature	-25°C to +70°C
Terminal connection type	Cable/Pin-type busbar/Fork-type busbar
Max. conductor cross-sections for cable	25mm <sup>2</sup>
Altitude	≤ 2000m
Installation	Mounting on 35mm DIN rail
Incoming method	From top

### Dimensions and Wiring Diagram

