

# Miniature Circuit Breakers

It satisfies IEC60947-2 and IEC60898-1 at the same time and can be applied to various industrial sites and residential spaces. It provides optimal solution through power measurement, on/off control, and wireless communication functions by using accessory devices for connectivity between low-voltage devices.



## E TAG & MCB

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# Miniature Circuit Breakers



## E TAG / E COLLECTOR

It is a device that performs power monitoring in a low voltage panel.  
E TAG (Small sensing module) wirelessly transmits the measured power information to the E COLLECTOR.  
E COLLECTOR provides power information to customers.

### Features

- **Power monitoring at the extreme end load**  
: Measurement of voltage/current/power, power quantity
- **Miniaturization design (suitable for panel)**  
: E TAG - tag structure (Installable form in MCB)  
: E COLLECTOR - Din Rail mounting structure
- **Wireless communication**  
: Minimizes installation space and provides installation convenience
- **Easy to collect power information**  
: One-gate information collection and operation in Smart LV panel

### Specification (E COLLECTOR)

Type	Details
Model name	IWM - ET - F24
Rated voltage	AC 110/220V, 50/60Hz
Number of connections for E TAG	20 or less recommended (up to 40)
LED	3 (Status, RF, Communication)
Protocol	Modbus RTU, Modbus TCP
Communication method	RS485, Ethernet, Wireless communication
Convergence time	Within 10 seconds
Mounting method	DIN-Rail
Size	72 (W) × 81 (H) × 65 (D), unit : mm
Weight	Approximately 200 g
Power Consumption	5W or less
Use temperature	-25 ~ +60 °C
Storage temperature	-40 ~ +80 °C

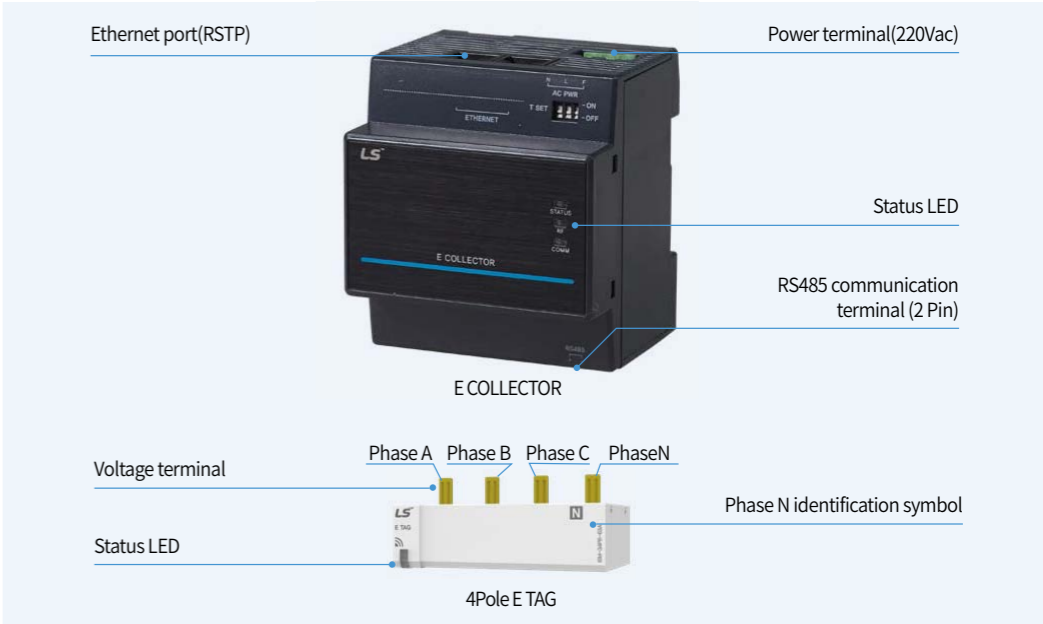
#### Wireless communication specifications

Type	Details	Remark
Wireless standard	IEEE 802.15.4	
Wireless output	0 dBm or less	
Frequency band	2.405MHz ~ 20480MHz	
Maximum number of sensors	40ea	Wireless communication cycle -20 or less : 5 seconds -21 or more : 10 seconds

### Specification (E TAG)

Type	1Pole	2Pole	3Pole	4Pole	
Model name	32A	ISM - 11PB - 32A	ISM - 12PB - 32A	ISM - 33PB - 32A	ISM - 34PB - 32A
	63A	ISM - 11PB - 63A	ISM - 12PB - 63A	ISM - 33PB - 63A	ISM - 34PB - 63A
Number of poles	1P + N	1P + N	3P	3P + N	
Rated voltage	220V	220V	380V	220V/380V	
Rated current	32/ 64A				
Rated frequency	60Hz				
Measurement factor	Current	●	●	●	●
	Voltage	Phase voltage	Phase voltage	Line voltage	Phase/line voltage
	Power(quantity), power factor	●	●	●	●
Communication method	Wireless communication, 2.4GHz				
Combination method	Bottom attach				
Power consumption	2W or less				
Use temperature	-25 ~ +60 °C (Standard operating temperature : +23 °C)				
Storage temperature	-40 ~ +80 °C				
Humidity	Within 85% RH, no condensation				

### Exterior description



### Example of device usage

It is installed on the load side of the circuit breaker (MCB) to measure load power and provides power information wirelessly to the E COLLECTOR. E COLLECTOR provides the collected power information to customers through wired communication (RS485, Ethernet).



# Miniature Circuit Breakers

## Ultra-small circuit breaker (BK63H)



- Number of poles : 1P, 2P, 3P, 4P
- Rated current : 1 ~ 63A
- Rated breaking capacity : 10kA
- Instantaneous trip characteristics : B, C, D
- Protection function : Overload and short circuit current
- Status display and dual terminal application
- Accessories : AX, AL, SHT, UVT, OVT

### Specification



On/Off status display

Type		BK63H	
Frame size		63AF	
Number of poles		1P, 2P, 3P, 4P	
Rated current, In		1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63A	
Rated breaking current	Applicable standards	1P	2P, 3P, 4P
	Voltage	-	10kA
	AC 415V	-	10kA
	AC 240V	10kA	-
IEC 60947-2, Icu	Ics (= %Icu)	75%	75%
	IEC 60898	AC 240/415V	10kA
Rated voltage	AC	240V	240/415V
	DC	60V	125V
Rated insulation voltage (Ui)		AC 500V	
Rated impulse voltage (Uimp)		AC 6kV	
Rated frequency		50/60 Hz	
Instantaneous trip characteristics		B (4In), C (7.5In), D (12In)	
Protection function		Overload, short circuit current	
Endurance life	Electrical	10,000 times	
	Mechanical	20,000 times	
Protection grade		IP20	
Wire dimension and torque		18-4 AWG (0.75 ~ 25mm <sup>2</sup> ) 20 Kgf.cm	
Installation method		Using 35mm DIN rail	
Terminal structure		Lug/Screw dual structure	
Over current trip method		Thermal - Magnetic	
Ambient temperature		-25 ~ +55 °C (use)	
Certification status		CE, Safety certification (KC), SEMKO CB Classification : ABS, BV, DNV, GL, KR, LR, RINA	

## Earth leakage circuit breaker (RKJ-b)



### Earth leakage circuit breaker with overcurrent protection

- Number of poles : 1P+N, 2P
- Rated current : 1 ~ 63A
- Rated breaking capacity : 10kA
- Instantaneous trip characteristics : B, C, D
- Operation Type : AC, A type selectable
- Certification Acquisition
  - IEC61009 (SEMKO CB)
  - KC Safety Certification (1P+N, 2P)
  - Electromagnetic compatibility certification (1P+N, 2P)

### Specification

Type		RCBO
Model name		RKJ - b
Rated voltage		230Vac
Rated current		1, 2, 3, 4, 5, 6, 10, 16, 20, 25, 32, 40, 50, 63A
Number of poles		1P+N, 2P
Breaking capacity		10kA
Operate type		A/AC
Earth leakage sensitivity current	Operating (I $\Delta$ n) mA	30, 100, 300mA
	Non-Operating (I $\Delta$ no) mA	0.5I $\Delta$ n
Instantaneous trip characteristics		B, C, D
Breaking time		≤0.1sec
Trip type	Ground fault	Electro - magnetic
	Overcurrent	Thermal - magnetic
Life span	Electrical (times)	4,000
	Mechanical (times)	10,000
Certification		IEC61009, SEMKO CB, KC (1P+N, 2P)
Size (width)		53.6mm/1P+N
Terminal		Lug type (cable up to 25mm <sup>2</sup> )
Installation method		Using 35mm DIN rail