BSC102

Smart Metering Circuit Breaker



Intelligent integration of metering and protection in power networks

BSC102 is an innovative smart grid solution that integrates a smart electricity meter and an automatic circuit breaker into a single device, delivering a new generation of electrical metering and protection equipment.

It combines accurate energy metering, short-circuit and overload protection, power quality monitoring, load management and control, and telecommunications, offering advanced capabilities to grid operators.

The integrated design reduces switchboard space, equipment and installation costs, and wiring complexity. By eliminating conventional separate devices, it also reduces opportunities for tampering and unauthorized interference with metering equipment.

- Communication capabilities
- Load management
- Power quality monitoring
- Reliable electrical protection
- Accurate energy metering

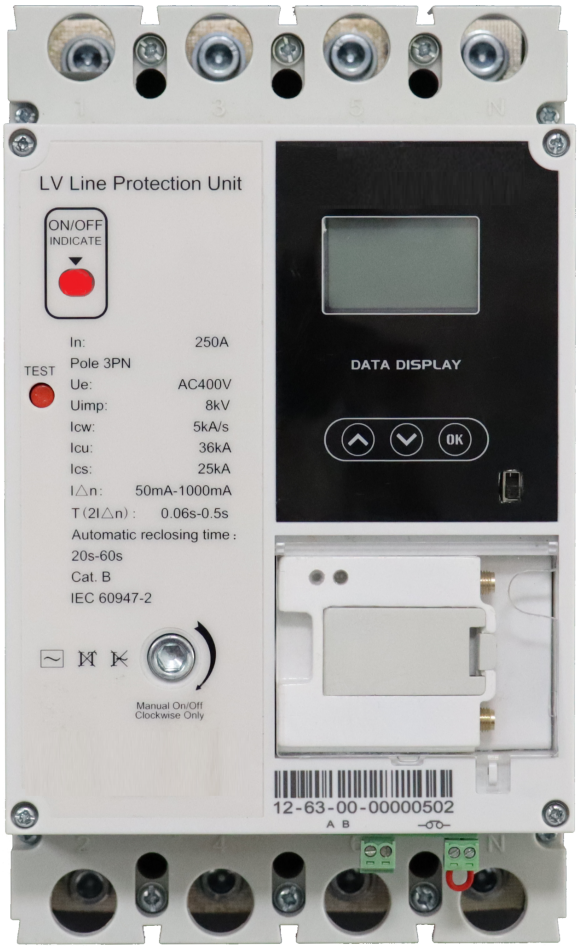
BSC102: Smart metering, electrical protection and energy management in one innovative device.

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Key Features and Benefits

BSC102 combines smart metering, electrical protection and energy management in one integrated solution for power distribution networks.



Electrical Protection

Protection against short circuits, overloads and earth faults.

Energy Metering and Recording

High-accuracy measurement of active and reactive energy.

Load Management and Control

Load control and management for efficient operation.

Power Quality Monitoring

Monitors power quality parameters to assess grid health.

Local Communication and Android App

Android application for local communication, configuration and maintenance.

FAHAM Infrastructure Compatibility

Fully compatible with existing FAHAM infrastructure and compliant with FID2 documents.

Operational Benefits

- Reduced risk of unauthorized tampering
- Lower equipment and installation costs
- Simplified wiring and installation
- Reduced switchboard space

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Technical Specifications

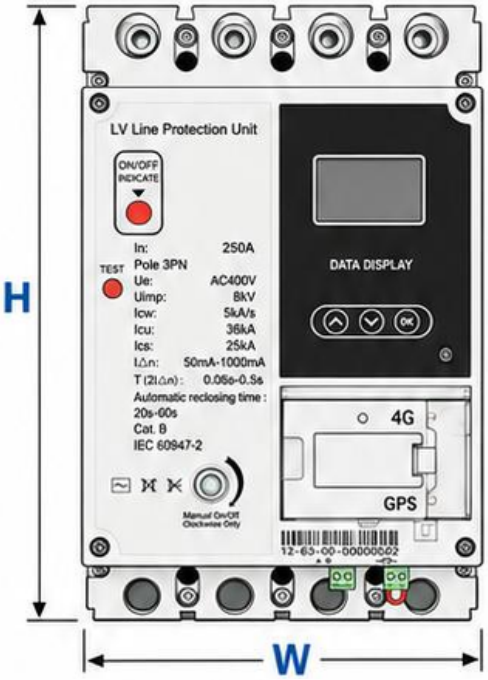
Rated current: 250 A / 400 A / 630 A / 800 A

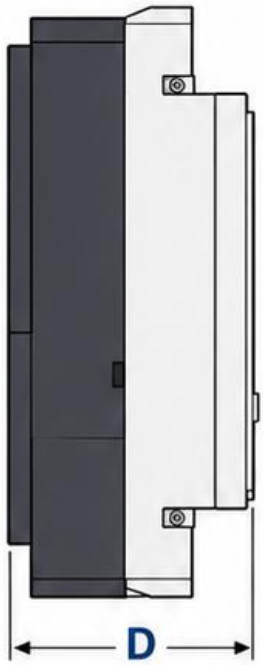
Specification	250 A	400 A	630 A	800 A
Accuracy class	Class 0.5S (active energy); Class 2 (reactive energy)			
Number of poles	3P+N			
Frequency	50 Hz / 60 Hz			
Rated operational voltage (Ue)	AC 230 V, AC 400 V			
Rated insulation voltage (Ui)	AC 690 V			
Rated impulse withstand voltage (Uimp)	8 kV			
Rated short-time withstand current (Icw)	5 kA / 1 s			
Rated ultimate short-circuit breaking capacity (Icu)	36 kA	36 kA	50 kA	50 kA
Rated service short-circuit breaking capacity (Ics)	25 kA	25 kA	35 kA	35 kA
Mechanical endurance (no-load operations)	7,000	5,000	4,000	3,500
Electrical endurance (on-load operations)	1,000	1,000	1,000	800
Short-circuit and overload protection	Three-stage, electronically adjustable protection			
Operating temperature range	−40°C to +70°C			
ESD immunity	Contact: 8 kV / Air: 15 kV			
Surge immunity	6 kV / 4 kA			
Reference standard	IEC 60947-2			
Dimensions (L × W × H), mm	240 × 142 × 120	335 × 196 × 177	355 × 240 × 185	355 × 240 × 185

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Dimensions and Installation





Dimensions by Rated Current	
250 A	240 × 142 × 120
400 A	335 × 196 × 177
630 A	355 × 240 × 185
800 A	355 × 240 × 185

Dimensions in mm, ordered as height (H) × width (W) × depth (D).



Benefits of the Integrated Design

- Reduced space requirements in switchboards
- Lower equipment and installation costs
- Simplified wiring and commissioning
- Reduced risk of tampering and unauthorized interference
- Integrated metering, protection and energy management

BSC102: An integrated solution for smart metering, electrical protection and efficient power network operation.

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