

# Inverter Accessories

Factory Installed



## 12HR – 12-Hour Battery Recharge

Configures the inverter's charging system to restore depleted batteries to full capacity within 12 hours, and supports faster recovery between outages.

## BAC – BACnet/IP Communication Interface

Provides Ethernet-based communication for integration with Building Automation Systems (BAS) using the BACnet/IP protocol. Enables real-time access to inverter data, including voltage, current, power, battery condition, and alarm states through BACnet-compliant platforms. The system supports standard BACnet object types (analog, binary, multi-state) and is designed for seamless discovery and supervision within networked control environments. BACnet/IP allows facility managers to monitor performance, verify system readiness, and respond to events without requiring local access to the unit. Ideal for centralized energy management and compliance-driven applications.

## BF-01 – Single Battery Compartment Fan

Compact forced-air cooling module designed to maintain safe battery temperatures in standard enclosures. Activates under high load or elevated ambient conditions to improve thermal stability. Includes a washable dust filter and vibration-dampening mounts for extended service life in demanding environments.

## BF-02 – Dual-Stage Battery Cooling Fan

Two-speed fan assembly with thermostatic control that adjusts airflow based on system temperature. Operates at low speed during normal conditions and switches to high speed during battery discharge or thermal rise. Provides enhanced cooling for larger battery configurations and includes a redundant airflow path for increased reliability.

## BF-03 – High-Capacity Battery Cooling System

Heavy-duty fan system engineered for harsh environments and prolonged backup runtimes. Features multiple high-output fans, filtered intake, and redundant EC (Electronically Commutated) motors to ensure continuous cooling performance under extreme heat or extended outage conditions. Designed for high-capacity battery banks where thermal management is critical to system protection.

## ECM – Environmental Control Module

Used to bypass local switching devices (such as wall switches, sensors, or relays) during an outage, ensuring emergency lighting circuits remain energized. One ECM is required per switched circuit or device.

## EMB – External Maintenance Bypass Switch

An external switch assembly that allows for maintenance on the inverter without interrupting power to the lighting loads. The make-before-break design connects utility power to the load before disconnecting the inverter, ensuring seamless power transfer. (Not available with integral output circuit breakers.)

## EMI – Electromagnetic Interference Filter

Reduces conducted and radiated electrical noise emissions from the inverter, ensuring compliance with FCC Part 15, Subpart J, Class A standards. This option is designed to minimize interference with nearby electronic devices and is recommended for commercial or industrial installations with strict electromagnetic compatibility (EMC) requirements.

The EMI filter enhances system reliability by preventing upstream noise from affecting sensitive equipment and helps meet regulatory mandates in facilities requiring low-noise environments.

## EPO – Emergency Power Off

Provides a means to turn off the inverter output during emergencies or maintenance manually. Typically mounted on the outside of the inverter for immediate access.

## EW – Extended Warranty

Extends the warranty coverage on system electronics for the selected duration, with options available on a per-year basis.

## EBW# – Extended Battery Warranty

Extends the standard battery warranty coverage by the number of years specified (#).

## FCON – Form C Contacts

Provides isolated, voltage-free relay outputs (dry contacts) for remote signaling of critical inverter status conditions such as System OK, Alarm Active, and On Battery. Designed for seamless integration with Building Automation Systems (BAS), fire alarm panels, and other remote monitoring equipment. Each contact operates as a Form C relay (single pole, double throw), which provides normally open (NO) and Normally Closed (NC) contact options. Allowing the system to work with different types of monitoring or safety equipment, depending on how signals need to be sent.

**Note:** Not all accessories may be available for every inverter, consult product specifications for availability.

**HTR – Internal Heater (Outdoor and Harsh Cabinets Only)**

Extends the inverter's standard low-temperature operating range from –20°C to –30°C, ensuring reliable performance in extreme cold conditions. Ideal for harsh-environment applications such as unconditioned enclosures, remote shelters, and outdoor installations exposed to subzero temperatures.

**IDB – Internal Dimmer Bypass**

Automatically disables 0-10V dimming and switches lighting to 100% brightness upon power failure. This keeps areas fully lit, regardless of their dimmer settings.

**IMS – Intelligent Monitoring System (Requires IMS Option as a Prerequisite)**

Transforms the inverter into a fully connected, cloud-monitored device through IoT integration. Enables real-time remote monitoring, cloud-based diagnostics, and automated alert management via a secure online platform.

The IMS collects and transmits system data, including input/output voltage, current, battery health, runtime, and fault conditions, to a centralized cloud dashboard accessible from any internet-connected device. Supports scheduled battery tests, predictive maintenance alerts, and exportable event/fault logs for compliance and reporting.

Includes secure features such as TLS/SSL encryption, multi-factor authentication, and configurable IP/network settings. Ideal for multi-site applications, remote facilities, and critical infrastructure requiring off-site visibility and performance tracking.

**IBMS – Intelligent Battery Monitoring System**

Advanced battery-level diagnostics and control to the Intelligent Monitoring System (IMS), enhancing real-time visibility into battery health and performance.

Each battery or battery string is equipped with temperature sensors and voltage monitors, allowing the system to log, analyze, and report critical battery data, including cell voltage imbalance, thermal drift, and charging/discharging status. The IBMS continuously evaluates performance trends and issues alerts for out-of-range conditions.

Supports cloud-based historical tracking, predictive maintenance, and fault notification to reduce unexpected battery failures and extend battery life. Ideal for applications where battery uptime is critical and proactive servicing is essential.

**ISO – Isolation Transformer**

Provides galvanic isolation between input and output circuits, reducing electrical noise, improving power quality, and enhancing safety. Recommended for installations requiring separation of utility and inverter grounds or where additional protection against harmonics and surges is needed.

**MB – Modbus Interface**

Provides communication capability for integration with Building Automation Systems (BAS), SCADA networks, and other supervisory monitoring platforms using the industry-standard MODbus protocol. Transmits critical inverter operating data—such as input/output voltage, current, power, frequency, battery status, and alarm conditions—over TCP/IP or RS-232/RS-485 connections.

Each system includes a B&B MESR921 gateway, which converts Ethernet to RS-232 for seamless compatibility with the inverter control board. This allows facilities to remotely poll inverter conditions, verify operating status, and log performance metrics. Designed for central monitoring applications, MODbus ensures that operators can detect abnormal events quickly and respond with minimal downtime.

**NOF – Normally OFF Output Circuit Breaker**

Output circuits that remain off during normal operation and activate only when utility power is lost. Ideal for emergency only loads that should not operate under normal conditions. Allows for direct connection and distribution from the inverter, eliminating the need for separate external panels.

**NOH – Normally OFF “Hold ON”**

An output breaker that remains OFF during normal operation but includes a programmable “Hold ON” delay to keep the inverter output active for a set time after utility power is restored. This allows for orderly system shutdowns, delayed equipment restarts, and helps prevent inrush current by coordinating with delayed-action systems such as ATS, BAS, or elevator controls.

The delay is user-configurable in 15-second or 15-minute intervals (e.g., 15 sec, 30 sec, 45 sec, 15 min, 30 min, 45 min).

**OCB – Output Circuit Breakers**

Output breakers that provide circuit-level protection for connected emergency loads. Allows for direct connection and distribution from the inverter, eliminating the need for separate external panels.

**OST – Onsite Start-Up**

A factory-authorized technician performs an on-site visit to activate and bring the inverter system online. This service includes verification of input (feed) power, load connections, battery condition, and overall system functionality. The technician ensures proper configuration and performs operational testing.

Completion of Onsite Start-Up extends the electronics warranty from 1 year to 2 years.

**PFCO-7 – Seven Programmable Form C Contacts**

A 7-relay dry contact interface designed for integration with critical power systems. Each relay can be independently programmed to activate under specific inverter or system conditions, such as input failure, output failure, inverter fault, or SBS malfunction. Provides advanced monitoring and alarm signaling capabilities, enabling seamless connection to Building Automation Systems (BAS), fire alarm panels, or other remote monitoring equipment.

**Note:** Not all accessories may be available for every inverter, consult product specifications for availability.

**RP – Remote Indicator Panel**

Wall-mounted panel that displays key inverter status indicators such as AC ON, Inverter ON, and Alarm. Enables remote visibility of inverter operation from locations such as control rooms, maintenance areas, or facility management hubs, supporting quick status checks remotely without accessing the unit directly.

**SC – Service Contract**

Provides extended service coverage for the inverter system, including scheduled preventive maintenance, priority technical support, and emergency on-site response. Preventive maintenance includes system and battery inspection, testing, to maintain reliable operation and extend equipment life. Contracts are available with varying service levels and response windows to meet specific facility needs.

**SNMP – SNMP Network Interface Card**

Provides network-based monitoring and control of the inverter system using the Simple Network Management Protocol (SNMP). The embedded web interface displays real-time system metrics—including voltage, current, power, alarms, and battery status—via a graphical, interactive Java-based webpage. Users can remotely monitor inverter operation, view energy flow animations, and perform key control functions as if operating the front panel locally.

Supports customizable alarm email notifications triggered by specific fault conditions, with up to three severity levels and user-defined recipients. The interface is available in wired (NET232) or wireless (WI232) configurations and is compatible with standard web browsers on LAN-connected devices.

Note: Email functionality requires a non-authenticated SMTP server. Configuration software and installation tools are provided.

**SRB – Seismic Rated Brackets (Comes Standard on Harsh and Outdoor models)**

Two floor-mounted L-brackets, 18" (L) × 3" (W), designed to secure the inverter in accordance with seismic installation requirements. Tested to ICC-ES AC156 and certified to meet CBC 2016, IBC, and OSHPD seismic compliance standards. Suitable for Seismic Design Categories A–F. Recommended for installations in seismic zones or facilities with specific compliance mandates.

**WB – Wall Mounting Brackets (Only Available on the TUCM, PHXLTE, and PHXCOM)**

Includes two 21.4" triangular steel support brackets, designed to securely mount the inverter directly to a wall surface. This mounting method suspends the unit off the floor, making it ideal for applications with space constraints or where floor-mounted equipment is impractical. The brackets ensure stable horizontal support and maintain clear access for ventilation and servicing.

**##KAIC - Customer Selected Input Breaker Rating**

Allows the customer to specify the input circuit breaker rating to meet site-specific electrical protection requirements, including coordination with upstream distribution equipment or facility standards. Must provide specific KAIC rating. The value "##" denotes the selected KAIC level—for example, 65KAIC would be ordered as 65KAIC.

**10KAIC – 10kAIC Input Breaker**

Input circuit breaker rated for 10,000 AIC (Amps Interrupting Capacity). Protects against high fault currents on the utility feed, ensuring safe system operation in facilities with lower available fault current.

**14KAIC – 14kAIC Input Breaker**

Input circuit breaker rated for 14,000 AIC. Provides enhanced protection for installations with moderate fault current levels, preventing equipment damage and supporting compliance with electrical safety standards.

**22KAIC – 22kAIC Input Breaker**

Input circuit breaker rated for 22,000 AIC. Designed for environments with higher available fault current, ensuring reliable interruption capability and robust system protection.

**65KAIC – 65kAIC Input Breaker**

Input circuit breaker rated for 65,000 AIC. Heavy-duty protection for installations with very high fault current potential, safeguarding inverter systems in demanding electrical environments.

**Note:** Not all accessories may be available for every inverter, consult product specifications for availability.