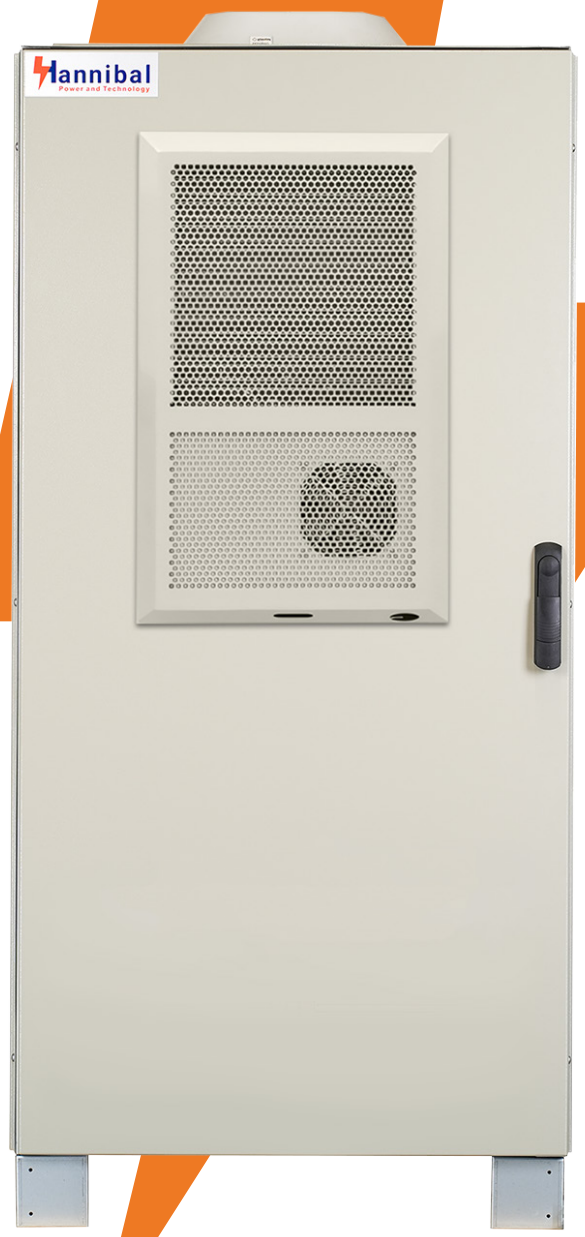

Outdoor Battery Charger UP to IP 65

Outdoor Rectifier for Harsh Environments is a growing category of Battery Charger systems that are built to withstand the stresses of an industrial environment. With floor space in data centers and other climate-controlled areas at a premium, more Rectifier systems are operating in harsh environments that can include vibration, dust, and liquid splatter.
These harsh conditions can affect the life span of regular rectifier equipment leading to unexpectedfailures. But Hannibal Outdoor UPS for harsh environments has components, batteries, and enclosures that can meet those challenges.
Up to IP65 is available in Hannibal UPS products and also for the Outdoor cabinet we can offer ATEX

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Power and Technology

Outdoor Battery Charger

GENERAL SPECIFICATIONS

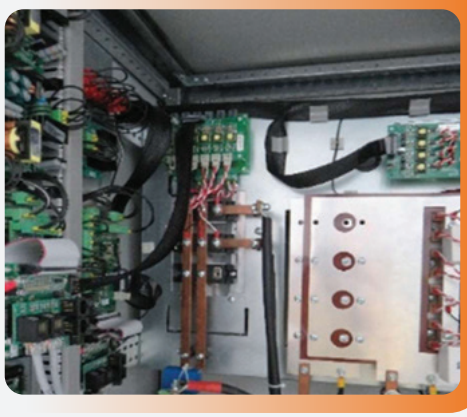
- Input isolation transformer
- Fast control with DSP controller
- Thyristor/IGBT technology
- Float boost and equalize charge
- Auto and manual charge mode
- <1% Voltage Ripple (<4% on 1 phase)
- Alarm adjustable dry contacts
- ModBus Protocol -RS232, RS485
- Operation available while mains fail
- Current limiting (adjustable)
- Automatic start & fault recovery
- Smart fault diagnosing

OUTDOOR SPECIFICATION

- IP 55 for the Harsh
- Environment Protection
- Waterproof and Dust Filters
- Operation Temperature between -10 to 55 Degrees
- Air Conditioner
- Roof ventilation
- Sun protection

Hannibal Outdoor UPS for Harsh Environments are designed to withstand:

- Temperature swings
- Humidity
- Dirt and debris
- Liquid splatter
- Vibration
- Remote or hard-to-access areas



Ex Proof Panel with IP65

Ex-Proof Standards: These panels are certified to meet ATEX (European Directive for Explosive Atmospheres) or IECExstandards.

Materials: Typically constructed from stainless steel or cast aluminum,

IP65 Rating:

- **Dust Tight:** The "6" in IP65 means the panel is completely dust-tight, providing full protection against dust ingress, ensuring no particles can enter the enclosure.
- **Water Jet Protection:** The "5" means the panel is protected against low-pressure water jets from all directions,

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Outdoor Battery Charger

TECHNICAL SPECIFICATIONS

MODEL	1 PHASE INPUT
INPUT	
Nominal Voltage	110VAC/127VAC/208VAC/220VAC/230VAC/ 240VAC
Nominal frequency	50 or 60 Hz
Transformer	Galvanically isolated
ITHD	<30-35%standardand <4-5%Optional
Input Protection	Thermic Magnetic Overcurrent protection MCB, Overvoltage protection
OUTPUT	
Float charge Adjustment range	75% to 135% of Nominal Output Voltage
Output Voltage Adjustment	75% to 135% of Nominal Output Voltage
Output Current Adjustment	0-100% of Nominal Output Current
Battery Charging Current	<30-35%standardand <4-5%Optional
Boost charge adjustment range	75% to 135% of Nominal Output Voltage
Equalizing charger adjust. range	75% to 135% of Nominal Output Voltage
Float Voltage(V/C)	2,24 lead acid Battery 1,40 NiCd Battery
Nominal Output Current	0 to 2000A
Max Output Current	110 % of nominal output current
Filtering	LC Filter
GENERAL PROTERTIES	
Boost Timer	0-600 hours adjustable
Cooling	Fan Forced Cooling (Standard), Natural Cooling (Optional)
Isolation Voltage	1500 or 3000VAC input/chassis and output/chassis
Efficiency at full load	>90%
Protection level	IP55, (consult to Hannibal for IP56 to IP65)
Real-Time Event	With LCD Pannel 200 Events and with HMI more than 1000 events (Optional)
Access to Batteries	Batteries and rectifier in the same cabinet with front access (Optional)
Circuit Breakers	Thermic-magnetic circuit breakers for input,Battery and Load (upto100A)
Reset Button	Used for re-operation in case of failure of the system.
Measurements (Optional)	Load Voltage/Current; Battery Voltage/Current; Utility Voltage; LineVoltage; Frequency; PowerFactor
ENVIRONMENT	
Acoustic Noise	45-55dB (according to Power Rating)
Storage Temperature	(-20 °C) – (+70 °C)
Operating Temperature	(-10°C) - (+55°C)
The temperature increasing	less than 2 C/ 10% load for both charger and transformer
Residual voltage level	At full load and no load, peak load=3%
Relative Humidity	0-95% Non-condensing, Heater (Optional)
Max Installation Height	1000m (-1% Power for every 100m after 1000m) Max.4000m
Color	RAL7035, RAL7032 (Standard), others (Optional)
COMMUNICATION & PARALLELING	
Communication	RS232 (Standard), Dry Contacts (Standard), RS485 (Optional), TCP (Optional), SNMP (Optional), GSM (Optional)
Paralleling	Parallel Redundant (No need for extra kit for paralleling)
COMMUNICATION & PARALLELING	
Standards	IEC61204-1, IEC62040-2, IEC 60529, IEC 60146, IEC60335, ISO9001, ISO14001-ISO27001-CE

Outdoor Battery Charger

TECHNICAL SPECIFICATIONS

MODEL	3 PHASE INPUT
INPUT	
Nominal Voltage	3*190VAC/3*220VAC/ 3*360VAC/ 3*380VAC/ 3*400VAC/ 3*415VAC (Phase to Phase)
Nominal frequency	50 or 60 Hz
Transformer	Galvanically isolated
ITHD	<30-35%standardand <4-5%Optional
Input Protection	Thermic Magnetic Overcurrent protection MCB, Overvoltage protection
OUTPUT	
Float charge Adjustment range	75% to 135% of Nominal Output Voltage
Output Voltage Adjustment	75% to 135% of Nominal Output Voltage
Output Current Adjustment	0-100% of Nominal Output Current
Battery Charging Current	<30-35%standardand <4-5%Optional
Boost charge adjustment range	75% to 135% of Nominal Output Voltage
Equalizing charger adjust. range	75% to 135% of Nominal Output Voltage
Float Voltage(V/C)	2,24 lead acid Battery 1,40 NiCd Battery
Nominal Output Current	0 to 2000A
Max Output Current	110 % of nominal output current
Filtering	LC Filter
GENERAL PROTERTIES	
Boost Timer	0-600 hours adjustable
Cooling	Fan Forced Cooling (Standard), Natural Cooling (Optional)
Isolation Voltage	1500 or 3000VAC input/chassis and output/chassis
Efficiency at full load	>90%
Protection level	IP55, (consult to Hannibal for IP56 to IP65)
Real-Time Event	With LCD Pannel 200 Events and with HMI more than 1000 events (Optional)
Access to Batteries	Batteries and rectifier in the same cabinet with front access (Optional)
Circuit Breakers	Thermic-magnetic circuit breakers for input,Battery and Load (upto100A)
Reset Button	Used for re-operation in case of failure of the system.
Measurements (Optional)	Load Voltage/Current; Battery Voltage/Current; Utility Voltage; LineVoltage; Frequency; PowerFactor
ENVIRONMENT	
Acoustic Noise	45-55dB (according to Power Rating)
Storage Temperature	(-20 °C) – (+70 °C)
Operating Temperature	(-10°C) - (+55°C)
The temperature increasing	less than 2 C/ 10% load for both charger and transformer
Residual voltage level	At full load and no load, peak load=3%
Relative Humidity	0-95% Non-condensing, Heater (Optional)
Max Installation Height	1000m (-1% Power for every 100m after 1000m) Max.4000m
Color	RAL7035, RAL7032 (Standard), others (Optional)
COMMUNICATION & PARALLELING	
Communication	RS232 (Standard), Dry Contacts (Standard), RS485 (Optional), TCP (Optional), SNMP (Optional), GSM (Optional)
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