

Powerware BPIII Harsh Environment UPS 50-75 kVA

Features

Standard features

- ▶ Standard features
- ▶ Generator-compatible rectifier
- ▶ Battery management system
- ▶ Phone home alarm reporting
- ▶ Remote diagnostics
- ▶ Dual feed inputs
- ▶ Input and output isolation transformers
- ▶ 120VDC input/output
- ▶ Harsh environment cabinet

Optional features

- ▶ Heavy duty filters
- ▶ High inrush inverter
- ▶ RS232 communication port
- ▶ Intelligent 10%THD input filter
- ▶ ANSI 61 gray exterior
- ▶ DC ground fault detection
- ▶ Oversized rectifier
- ▶ Start on battery
- ▶ Blocking diodes
- ▶ Remote emergency power off (REPO)



Particularly harsh industrial environments have unique requirements to ensure the nonstop availability of power to its critical applications. Whether it's transportation, process control, or remote sites, these applications face temperature fluctuations, corrosive conditions, moisture and other harsh factors that can affect UPS operation.

The Powerware BPIII HE features a rugged design and advanced capabilities, such as generator compatibility, protection from harsh environment, communications, and battery management, to ensure reliable operation in the most extreme environments.

120VDC UPS applications

In industrial environments, many critical loads require a source of 120VDC power. This may include circuit breaker and switching controls, electrically actuated valves, DC motors and many other types of loads. The BPIII HE features a 120VDC link that can be used with an existing battery to supply a secure source of AC power. This eliminates the need for the large battery and rectifier bank that are typically required in these applications, saving both money and space.

The BPIII HE also offers substantial cost savings over higher voltage systems in critical applications requiring 20-year warranted lead-acid or nickel-cadmium batteries. In addition, the BPIII HE's 120VDC link delivers overall reliability since the number of components required is reduced.

BPIII HE Models:

50 kVA/40 kw
62.5 kVA/50 kw
75 kVA/60 kw

Specifications

ENVIRONMENTAL

Ambient temperature*

Operating 0°C to 50°C without derating

Storage -20°C to 70°C

Relative humidity Noncondensing up to 95%

Altitude

Operating 5,000 ft (1500 m) at 50°C without derating

Accoustical noise 72 dB 'A' scale @ 1 meter, in accordance with ISO 7179

EMI suppression Meets FCC Part 15 for class A devices

Electrostatic discharge Meets IEC 801-2 specifications
Withstands up to 25kV with out damage and with no disturbance or adverse effect to the critical load

MECHANICAL

Dimensions

Width 69 inches (173 cm)

Depth 33 inches (84 cm)

Height 74 inches (188 cm)

Access Maintenance access required from front

**Battery warranty is conditional upon application at or below 24°C (75°F). Continuous operation above 25°C (75°F) may reduce or void battery warranty (see battery warranty).*

Specifications

ELECTRICAL INPUT	
Voltage:	
Configuration:	3-Phase, 3 wire plus ground
Range	Nominal +10%, -15%
Frequency range	Nominal ± 3 Hz (60 Hz)
Power factor with filter	Minimum 0.9
Power walk-in	3-60 seconds to full load
Input current distortion with filter	10% THD under nominal conditions
Transient protection	6kV OC, 3 kV SC per ANSI 62.41 and IEC 801-4
MISCELLANEOUS	
Coated Boards Specification	to MIL-I-46058C
5 Micron Filter Specification	ASHRE 62-1989R or equivalent

ELECTRICAL OUTPUT	
Voltage:	
Configuration	3-Phase, 3 or 4-wire plus ground
Steady State Regulation	$\pm 1\%$ from nominal for the combined effects of minimum to maximum AC input voltage, 20% to 100% and 100% to 20% load and maximum to minimum DC voltage
Dynamic Regulation	$\pm 5\%$ from regulated output for 20% to 100% and 100% to 20% step load recovering to within 1% in 1 cycle
Harmonic Distortion	2% THD at full linear load 5% THD at full non-linear load
Unbalanced Regulation (Linear Load)	$\pm 3\%$ for 100% load unbalance
Overload (Inverter)	Up to 125% for 15 minutes Over 150% for 10 seconds 1000% for 10 cycles with bypass
Frequency regulation	$\pm 0.01\%$ free running
Frequency slew rate	1 Hz per second maximum

This data sheet provides specification information unique to this rating. The specifications reflect operation in a controlled test environment. Performance may vary under actual operating conditions. Specifications are subject to change without notice.

BPIII HE SYSTEM DATA

50 kVA / 40 kW						62.5 kVA / 50 kW					75 kVA / 60 kW			
AC INPUT														
Input Voltage (VAC, L-L)	208	480	480	600	400	208	480	480	600	400	208	480	480	600
Input Frequency (Hz)	60	60	60	60	50/60	60	60	60	60	50/60	60	60	60	60
Nominal Current (Amps)	140	61	61	49	73	175	76	76	61	91	210	91	91	73
Maximum Current (Amps)	175	76	76	61	91	219	95	95	76	114	263	114	114	91
AC OUTPUT														
Output Voltage (VAC, L-L)	208	208	480	208	400	208	208	480	208	400	208	208	480	208
Output Frequency (Hz)	60	60	60	60	50/60	60	60	60	60	50/60	60	60	60	60
Nominal Current (Amps)	139	139	60	139	72	173	173	75	173	90	208	208	90	208
15 Minutes Max (Amps)	174	174	75	174	90	217	217	94	217	113	260	260	113	260
BYPASS INPUT														
Nominal Current (Amps)	139	139	60	139	72	173	173	75	173	90	208	208	90	208
Amps (Max)	174	174	75	174	90	217	217	94	217	113	260	260	113	260
DC INPUT LINK														
Nominal Voltage (VDC)	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Float Voltage (VDC)	135	135	135	135	135	135	135	135	135	135	135	135	135	135
End of Discharge (VDC)	99	99	99	99	99	99	99	99	99	99	99	99	99	99
Maximum Current (Amps)	494	494	494	494	494	617	617	617	617	617	741	741	741	741
MECHANICAL SPECIFICATIONS														
Installed Weight (lbs)	4640	4640	4140	4640	4140	4640	4640	4140	4640	4140	4640	4640	4140	4640
(kg)	2105	2105	1878	2105	1878	2105	2105	1878	2105	1878	2105	2105	1878	2105
SYSTEM EFFICIENCIES														
100% load (%)	88	88	88	88	88	88	88	88	88	88	88	88	88	88
75% load (%)	87	87	87	87	87	88	88	88	88	88	88	88	88	88
50% load (%)	85	85	85	85	85	87	87	87	87	87	87	87	87	87
Inverter DC-AC (%)	90	90	90	90	90	90	90	90	90	90	90	90	90	90
FULL LOAD HEAT DISSIPATION														
BTU/Hr. (x 1000)	18.6	18.6	18.6	18.6	18.6	23.3	23.3	23.3	23.3	23.3	27.9	27.9	27.9	27.9
Watts (x 1000)	5.5	5.5	5.5	5.5	5.5	6.82	6.82	6.82	6.82	6.82	8.2	8.2	8.2	8.2

Powerware

WORLDWIDE HEADQUARTERS
8609 Six Forks Road
Raleigh, NC 27615 U.S.A.
Toll Free: 1.800.356.5794
or 919.872.3020
www.powerware.com

CANADA
Ontario: 416.798.0112

IPM06HE
Revision 09/03
Reprint 09/03

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LATIN AMERICA
Argentina: 5411.4343.6323
Brazil: 55.11.3616.8500
México: 5255.9171.7777

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