Battery Presence Monitor, 3A
BPM 300-F0 Series

- Rugged industrial quality
- Field-proven design
- Conduction/convection cooled - no fan
- Full electronic protection

This rugged, industrial quality battery presence monitor (BPM) is designed to indicate whether the battery is connected to a back-up system. Without this unit, it is difficult to detect battery presence in real time. This BPM is designed for a small battery back-up system with 3A max battery current. It continuously monitors whether the battery is connected to the battery input terminal. If the battery is removed, the contacts are corroded, the battery fuse is blown or the battery starts drying up, the unit generates an alarm signal by Form B relay contact. The BPM is connected between the battery and the battery terminal of the system. It is self-powering. Cooling is by conduction via baseplate. Additional cooling is achieved by natural convection through the cooling slots. All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate. This also provides exceptional mechanical ruggedness. Conformal coating provides protection against humidity and airborne contaminants. Full electronic protection, low component count, large design headroom and the exclusive use of components with established reliability contribute to a high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage
21-130Vdc operating range
Suitable for systems with 24V, 36V, 48V, 72V, 96V, 110V and 125Vdc as nominal input

Input Protection
Lower voltage than the specified minimum input will not damage the unit.

Input Isolation
1500Vdc input/output to chassis
The input and output returns are common

Standards
Designed to meet EN62368-1 and related standards

EMI
EN55032 Class A with margins

Monitoring Frequency
75kHz ±5kHz
Custom versions are available

Output Voltage/Current
Same as input voltage/3A

Efficiency
98% minimum at full load

Operating Temperature Range
-25°C to 55°C for full specification
Wider range available as option

Cooling
Conduction to customer heat-sink or chassis and natural convection

Environmental Protection
Basic ruggedizing
Conformal coating

Shock/Vibration
IEC 61373 Cat 1 A&B

Humidity
5 - 95% non-condensing

MTBF
160,000h at 45°C Demonstrated
MTBF is significantly higher

Indicators
None

Control Input
None

Alarm Output
Form B contacts
Fail open

Package/dimensions (W x H x L)
F0: 88 x 48 x 155 mm
3.47" x 1.9" x 6.1"
Dimensions include mounting flanges/baseplate, exclude connectors.
Mounting holes are clear

Weight
0.55 kg (1.2 lb) approx.

Connections
6-pole barrier type terminal block with 3/8" spacing

RoHS Compliance
Compliant

Warranty
Two years subject to application within good engineering practice

Terminal Block Pin-out

ALARM		Battery		To System	
F/O	COM	+	—	—	+
1	2	3	4	5	6

ABSOPULSE power supplies are designed and built to customer requirements. The specifications on this data sheet are generic guidelines only and are subject to change.

OEM of industrial and railway quality DC-DC converters, AC-DC power supplies and battery chargers, DC-AC sine-wave inverters, phase and frequency converters, DC-output UPS systems and complete power systems in 19" and 23" racks since 1982. Custom or standard. ABSOPULSE is a BABT-approved Facility.

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Made in Canada