

No Break Power System

For critical application it is necessary to maintain system operation during primary AC mains disconnection. Spector Lumenex are able to incorporate fully supervised no break autonomy by provision of integrated battery pile within the host equipment.

The host is arranged to operate normally from AC mains supply on a 'direct' bases i.e. there is no dependence on the battery pile or charging subsystem, in the event of AC mains disconnection dual cubicle wiring routes battery DC to the target equipment. No change over switching is required instead solid state rectifier sticks provide the necessary gating and isolation between primary and secondary supplies.



AMPIID/48/PSU/DIS 1 Unit high 19 inch cubicle mounted panel assures security of primary A.C. mains supplies and provides LED status of both A.C. and D.C. mains supply inputs to the target equipment. Data sheet PM0003



AMPIID/48/PSU/B This is a 2.4Kw A.C. to D.C. converter which carries rectifier sticks to bridge both primary and secondary supplies to an ACE AMPIID power amplification rack. Data sheet PM0003

This enables either AC or DC subsystem to independently energize the equipment unlike a conventional UPS (Uninterruptable Power Supply) system that inverts DC battery voltage to AC mains supply. Use of fully duplicated supplies i.e. Primary AC and Secondary DC to the target equipment enhances integrity and simplifies the power subsystem critical path.



BC0001 constant voltage charger, presetable charge capability of 5, 10, 15, 20 Ampere. Two BC0001 are fitted for AMPIID power amplification package. Data sheet PM0005

Charging is by constant voltage charger type BC0001 which also incorporates supervision of wiring to / from the battery terminals including monitoring of all critical protective fuse links.



High reliability sealed lead acid accumulators are incorporated in our power systems

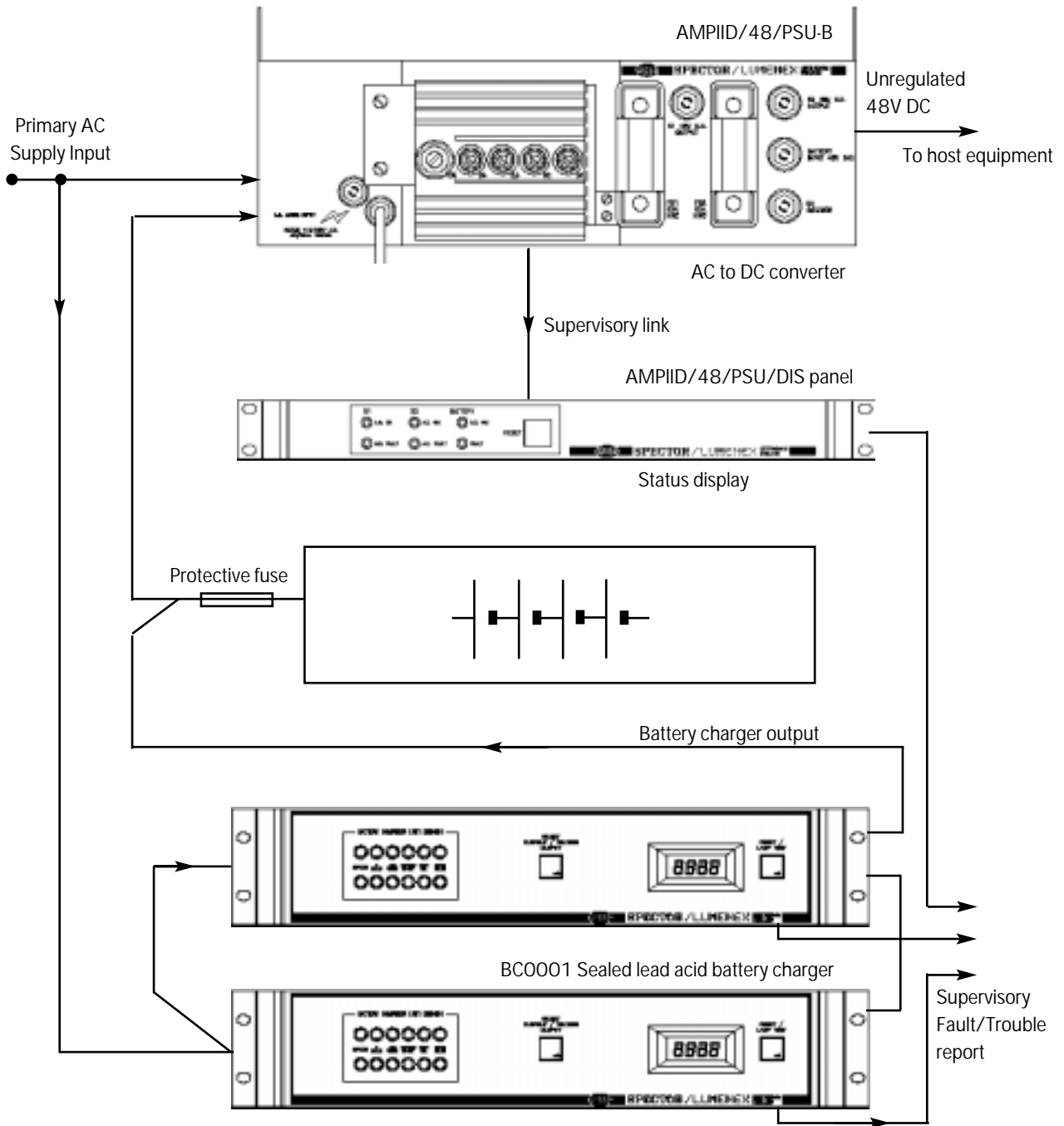
Battery units are dry fit sealed lead acid types which are a major improvement on traditional lead acid accumulators. No maintenance is required and float charging assures availability for intermittent usage. Note that Nickle Cadmium based batteries are avoided due to environmental disposal considerations.

Key Features

- ◆ Integrated no break supply from single vendor reduces installation and commissioning costs.
- ◆ No D.C. to A.C. conversion simplifies no break power supply design. Enhances reliability
- ◆ Elimination of field cabling between Public address & Alarm system and U.P.S cubicle. Enhances security
- ◆ Amplifier system is energised either by A.C. mains supply directly, or in event of mains failure by D.C. battery directly. High integrity
- ◆ Amplifier system does not require battery charges or battery pile to be functional to maintain primary operation. Allows service of battery sub system with out taking entire Public address & Alarm system off line.

A Spector Lumenex ACE no break system comprises of minimum: -

- ◆ 1 X 150 Ampere hour battery pile
- ◆ 2 X BC0001 constant voltage charger
- ◆ 1 X A4 battery protective fuse link rated 100 Amperes
- ◆ 1 X AMPIID/48/PSU – B AC to DC converter with battery supply input.
- ◆ 1 X AMPIID/48/PSU/DIS Supervisory indicator panel



For ACE applications no break autonomy is configured on the following basis:-

- Standard battery pile size - 150 Ampere Hours
- Terminal voltage - 48v DC
- Accumulator voltage - 12v DC

No break autonomy with 2.4KW audio capability :

- 1) 24-hour quiescent (standby) 30-minute full load (e.g. alarm tone); or
- 2) 1 hour full load; or
- 3) 30 minute full load, 1 hour quiescent (standby), 1 hour speech

Spector Lumenex have a policy of continuous product improvement therefore this information is subject to change without notice.

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