

Omni-Block Power: Integrated UPS System

ultimate power protection



Ultimate Power Protection

The Integrated Uninterruptible Power Supply (UPS) System is a highly reliable, fault tolerant redundant power source for mission critical systems.



Custom Designs Available



Options

- Scalable output sizes
- Isolation transformer
- Dual AC input (190VAC - 480VAC)
- Single, 3 phase or mixed inputs
- 50/60Hz output
- Various input/output voltages
- Fieldbus Connectivity for monitoring by remote systems (options include Profibus & Ethernet)

Aspin Kemp & Associates (AKA) has developed an Integrated UPS System that provides reliable, highly fault-tolerant and cost effective on line redundant power for mission critical requirements, such as:

- Thrusters drives;
- Drilling equipment;
- Diesel engine controls/switchboards; and
- BOP control systems

Features include simultaneous AC and DC outputs, and hot swappable redundant rectifier and inverter modules. Our Integrated UPS systems are available for a wide range of single phase, three phase and DC input voltages. Both AC and DC outputs are available to suit your specific requirements. The modular design inherently enables the matching of power, voltage and frequency ratings for project specific needs.

Integrated Hardware in the Loop (HIL) test capabilities can reveal hidden faults during normal standby operations. The design of the graphical user interface of the Integrated UPS facilitates easy to understand diagnostics for faultfinding with its detailed alarming.

This is a major leap forward when compared to conventional UPS systems. Since issues are identified and can be successfully resolved during normal standby operations, plant operators can be confident project specific control power requirements are always available during critical situations.

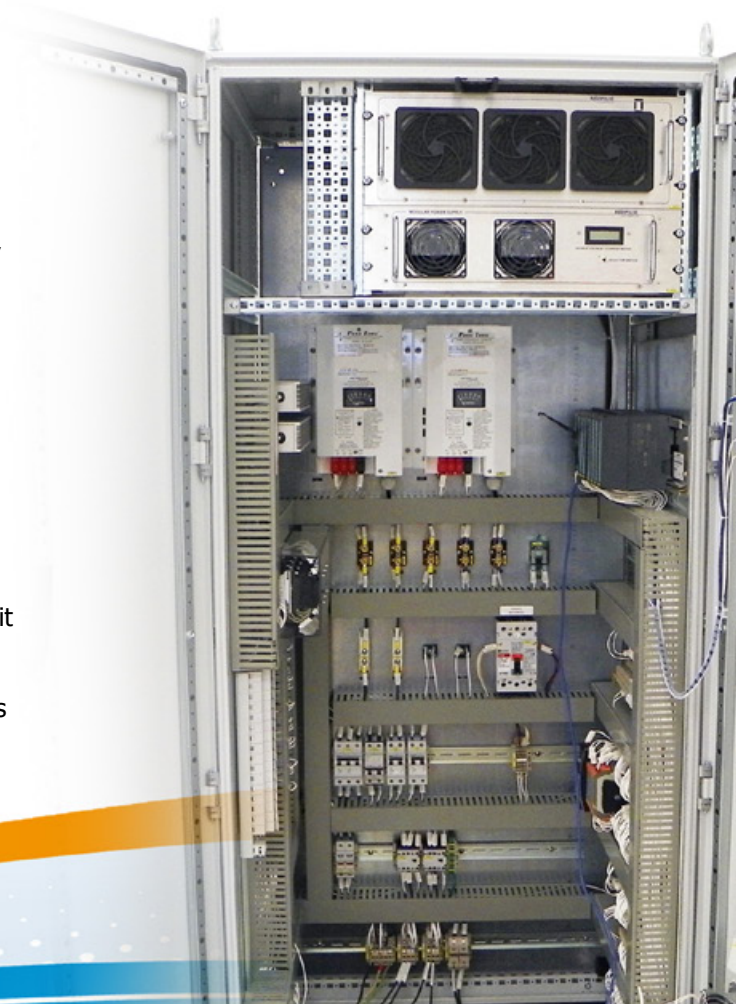
Battery equalization functions greatly extend battery life.

Major System Components

- Modular rectifier units, hot swappable
- Modular inverter units, hot swappable voltage
- Separate battery charger
- Long life battery bank
- Blocking diodes for source separation and redundancy provision
- AC and DC voltage outputs
- AC and DC distribution with coordinated protection
- Shunt trip for Emergency Shutdown
- Latest IGBT and MOSFET semiconductor technology for enhanced reliability and high efficiency
- Battery Conditioning System includes equalization of battery string utilizing resistor chopping technology
- HMI Screen
- Manual bypass switch
- Surge suppressor
- UPS cabinet
- Battery bank cabinet

Benefits & Features

- UPS Sizes up to 50kVA
- Energy storage up to 30Kwh
- Dual source input voltages from 190VAC - 480VAC (single or 3 phase)
- DC output voltages: 24, 48, 125
- AC output voltages: 115V, 230V Single phase
- Hardware in the loop testing
- Internal load bank for battery health verification
- Individual battery monitoring and conditioning (voltage, temperature)
- Energy management system including battery performance monitoring
- Modular compact design
- Scalable output AC and DC (more power needed just add another module)
- Scalable energy storage
- Hot swappable and redundant design
- Monitoring system for bus current, voltage and charger current
- Constant conversion technology
- Easy maintenance and repair due to system topology and component choice
- Interface installation remote monitoring
- Enhanced data logging capabilities
- In the event of a DC short circuit at the load: Branch-Protection modules ensure voltage ride through for unaffected branches



Hardware in the loop testing ensures the integrated UPS is ready for mains power loss and full capacity at all times.



HEADQUARTERS
23 Brook Street
Montague
Prince Edward Island
Canada C0A 1R0

AKA WORLD OFFICES
North America - Canada
EU - Bulgaria
Asia - Singapore, China

SALES
+1.902.620.4882
sales@aka-group.com
info@aka-group.com
www.aka-group.com