

AC POWER SYSTEM FAILSAFE II HIS - SERIES

STANDARD FEATURES

- IGBT Base (PWM technology)
- Micro-processor controlled for reliability
- Smaller footprint, stackable cabinetry
- 500 VA to 16.7 KVA models
- Off line IPS
- Universal lamp and ballast compatability
- Compatable with all electronic ballasts, backup generators and other non linear technologies
- Listed to UL-924
- Meets NFPA 101 Life safety code, OSHA, NEC 70, local and state codes



Application

Highlites Failsafe II series, AC inverter systems are designed to serve AC loads that can tolerate a momentary interruption of power at the time of the power failure. The normal transfer time of 50 milliseconds is not recommended for HID Lighting or computer systems. However it is Ideal for incandescent, fluorescent, electroluminescent and LED lighting systems.

The System consists of a battery, battery charger, DC to AC Inverter and a transfer switch. Systems above 4KVA require a external, stackable battery cabinet. The cabinets can be floor or wall mounted and are manufactured of heavy gauge steel with front opening key locked doors. The cabinet is also provided with louvers for convection cooling, and a variety of Knockouts for inter cabinet connections and utility power input using BX, romex or conduit.

The Failsafe II systems feature new Pulse Width Modulation (PWM) Inverter technology. The onboard microprocessor monitors and adjusts the current need by the load over 16,000 times per second. This key feature completely eliminates any and all compatibility problems, while increasing reliability through lower parts count.

Increased inverter energy efficiency dramatically reduces system footprint by reducing battery requirements.

Highlites PWM inverter serves as the engine for the new UL-924 listed Failsafe II Series. In addition to the new PWM inverter electronics, the Failsafe II series offers a "feature" rich digital control panel standard with each system and is available from 500 VA to 16.7 KVA in a wide variety of voltage configurations. The Failsafe II series is ideal for medium to large industrial, commercial and institutional sites that that previously required large quantities of individual emergency lighting units.

Available Options

- Input and Output Circuit Breakers (ICB and OCB)
- Battery exerciser (BEX)
- Variable Time delay (VTD)

Design Benefits

- 95 % Efficiency
- UL -924 listed
- 30 Minute MTTR
- Sine Wave Output
- Sealed Lead Calcium Battery
- Front Access to Electronics
- Stackable battery cabinets
- Two Year Electronics Warranty**

See page 10 through 12 for a complete description of all available options for AC Systems

SPECIFIER REFERENCE

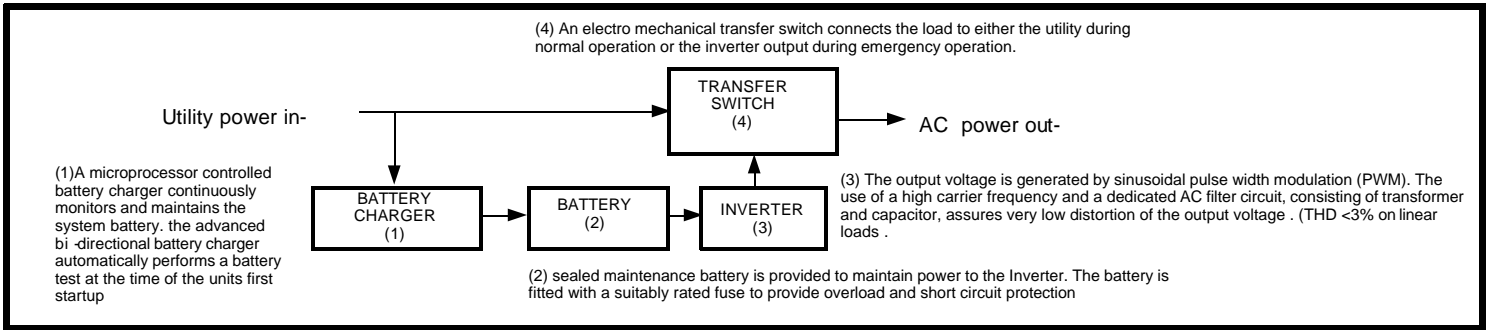
PROJECT:

MODEL NO. :

COMMENTS:

FAILSAFE II HIS- SERIES PRODUCT SPECIFICATION

System Operation Diagram



Unit Selection Chart

NOTE: All dimension shown are in inches. Specifications subject to change without notice.

Model number	VA Rating	Input current	Efficiency %	Heat loss BTU's	Inverter Cabinet Dimensions			WT (LBS)	Battery Volt-	Battery Cur-	Run Time MIN.	Battery Cabinets Dimensions			No. of Battery	Battery Weight (LBS)	Noise DBA
					W	H	D					W	H	D			
HIS-500 - * - **	500	6	98	25	30	46	22	200	48	15	90	Battery Cabinets not required on these models			110	45	
HIS-750 - * - **	750	9	"	38	"	"	"	205	48	23	"				160	"	
HIS-1000 - * - **	1,000	11	"	50	"	"	"	210	48	33	"				240	"	
HIS-1500 - * - **	1,500	17	"	75	"	"	"	215	48	49	"				320	"	
HIS-2000 - * - **	2,000	22	"	100	"	"	"	230	120	23	"				400	"	
HIS-2400 - * - **	2,400	27	"	120	"	"	"	230	120	28	"				510	"	
HIS-3000 - * - **	3,000	33	"	150	"	"	"	235	120	33	"				600	"	
HIS-3600 - * - **	3,600	40	"	180	"	"	"	240	120	40	"				720	"	
HIS-4000 - * - **	4,000	47	"	200	"	"	"	245	120	42	"				720	"	
HIS-4500 - * - **	4,500	50	"	225	"	"	"	270	120	49	"				30	46	22
HIS-5000 - * - **	5,000	56	"	250	"	"	"	280	240	38	"	"	"	"	2	1160	"
HIS-6000 - * - **	6,000	62	"	300	"	"	"	300	240	33	"	"	"	"	2	11200	"
HIS-7500 - * - **	7,500	67	"	375	"	"	"	335	240	42	"	"	"	"	2	1440	"
HIS-10000 - * - **	10,000	98	"	500	"	"	"	440	240	56	"	"	"	"	4	22320	"
HIS-12500 - * - **	12,500	123	"	625	"	"	"	450	240	66	"	"	"	"	4	2400	"
HIS-16700 - * - **	16,700	155	98	840	"	"	"	500	240	84	"	"	"	"	4	2880	"

Three phase available up to 50 KVA by using 3 each of any single phase models shown above phase locked together with a -3IPS Lock in Module. Some Input specifications may change, consult the factory.

* Specify required input and output voltage. See voltage selection table on page 14

** Battery Selection Table

- J Wet Lead Calcium (optional)
- P Sealed Maintenance Free Lead Calcium -Standard

Electrical Specifications

INPUT

- **Input power walk-in:** 2 cycles, which limits the inrush current from the utility to 125% maximum
- **Input frequency:** 60 HZ \pm 3% (50 HZ available, consult factory)
- **Input transfer voltage:** Brownout, transfer to inverter @85% utility input. Transfer back to utility @ 90% input voltage.

OUTPUT

- **Output regulation (static):** Load current changes, \pm 4%, battery discharge \pm 4%.
- **Output regulation (dynamic):** \pm 3% for a \pm 25% load step change, \pm 6% for a \pm 50% load step change, recovery within 3 cycles.
- **Output regulation during emergency (dynamic):** \pm 3% for a \pm 25% load step change. \pm 6% for a \pm 50% load step change, recovery within 3 cycles
- **Load power factor:** .5 lag to .5 lead
- **Output wave form:** Computer grade sine wave
- **Output distortion:** <3% THD linear load.
- **Time to transfer:** <50 ms
- **Inverter Efficiency:** 95%

BATTERY

- **Standard Battery:** Premium sealed lead calcium
- **Optional battery:** Nickel cadmium or wet lead calcium
- **Battery charger:** Microprocessor controlled
- **Recharge time:** 24 hours (standard), 12 hours (optional)
- **System run time:** 90 minutes at full load. Longer runtimes are available.

MONITORING AND CONTROLS

- **Front panel Controls Group:** Battery DC Voltmeter, Output AC voltmeter, Battery Current, Output Current System Test Switch
- **Indicators:** Battery Charging, Battery Power, AC Line Present, System ready, Output Fault, Inverter Fault, Charger Fault, High Temperature, Battery Voltage and Early Warning
- **Available option:** Output trip, Low electrolyte, Battery exerciser, Variable time delay, Zone monitoring, Fast charge, Remote monitoring

PHYSICAL

- **Operating temperature:** 0° to 40° C. Continuous operation at higher or lower ambient temperature will affect battery run time and life
- **Relative humidity:** 95% non-condensing.
- **Approvals:** UL-924 listed, meets all the requirements of NFPA 101