

EVERY MOMENT COUNTS



• **ablerexHS**

FOR INDUSTRIAL USER

 **Ablerex**
every moment counts



The Ablerex HS series UPS combines unique isolation technology with the latest in Double Conversion Online topology. Ablerex's engineering strength is evident yet again through the incorporation of many powerful features in a user-friendly, intelligent and reliable system. Besides integrated single-chip technology, the Ablerex HS Series features a large LCD display, unity input Power Factor, true R5232 port, optional SNMP interface card, and smart battery charger etc.

Outstanding Features:

Unity Input Power Factor (PF >0.98)

Meets modern industry standards for energy saving and minimum pollution to utility power.

Single-Chip Microprocessor Control

Uses a field-proven single-chip Microprocessor Unit (MPU) to substantially reduce the component counts and achieve great functionality, reliability, intelligence and compactness.

Double Conversion Online Architecture

Completely regenerates the utility power to rectify the disturbances in the utility power.
The unit provides clean A.C. power with voltage and frequency independent from the utility (VFI)

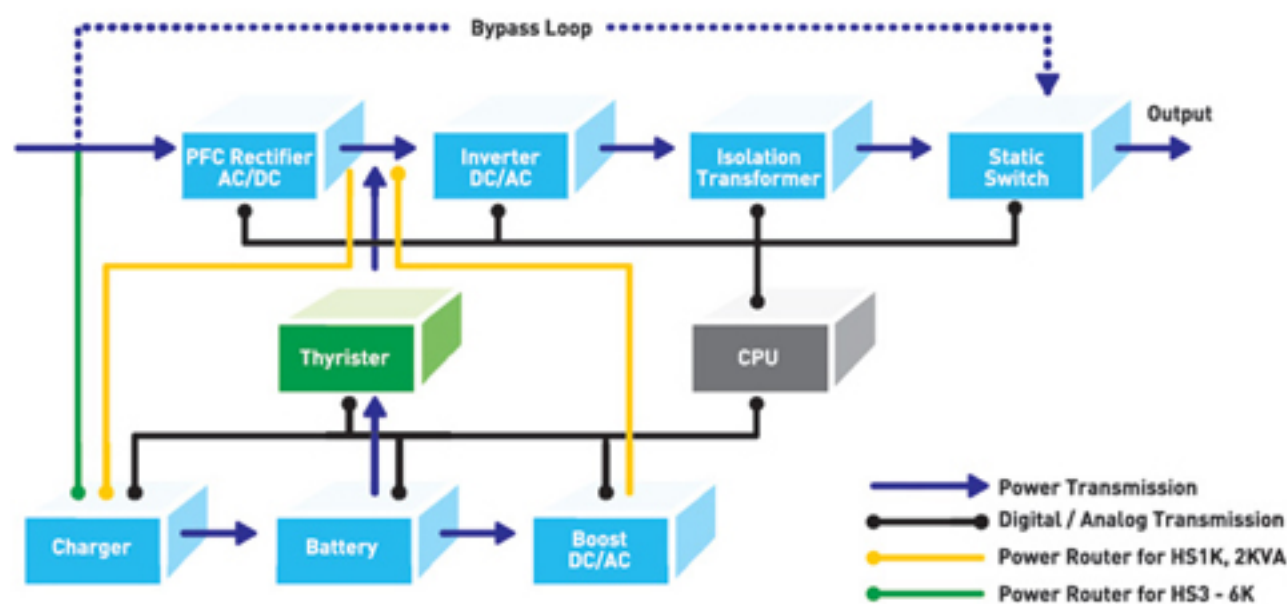
Large LCD Display

An easy-to-read LCD display provides real-time indication of all major systems parameters and status. In addition, the full-size graphical LCD display for 8KVA & 10KVA provides advanced monitoring functions that greatly enhances their user friendliness and ease of use.



Isolated IGBT Inverter and Isolation Construction

The advanced IGBT inverter, coupled with an isolation transformer, enhances the reliability and load adaptability. This unique construction for input and output isolation provides the advantage of noise rejection as well as a clean and safer neutral line to the load, thus enables the Ablerex HS UPS to be used with most types of load.



Block Diagram of Ablerex HS Series UPS

Complete Circuitry Protection

Specially-designed circuitry protects against abnormal operations such as Overload, Inductive type of load, short-circuit, AC Input Over-voltage, Inverter Over-voltage and Over-temperature, ensuring high system reliability.

The evolutional input PFC circuitry maximises the system security and battery life by handling very wide ranges of AC input voltages to avoid frequent battery usage

High Crest Factor Circuit Design

Suitable for any rectifier and inductive type of load, especially computer systems.

i-Charge

Monitors the charging and discharging status of the battery by the minute to enhance the battery's life.



Multiple High-rated Charger for Runtime Extension (options)

The optional 200W, 500W, and 2KW chargers are designed to fulfill most kinds of long runtime applications.

Matching Battery Bank (Options)

Optional battery bank brings the convenience for the customers to extend the UPS runtime within a couple of DC wiring connections.

Built-in Communication Protocol and Port

True RS232 port link with the UPS communication protocol is implemented with various kinds of UPS application software.

Built-in Communication Slot for optional communication accessories

The communication slot in every Ablerex HS UPS allows the user to install the following communication interface cards:

SNMP card:

The SNMP card converts RS232 signal to Ethernet signal and also configure the UPS to log onto the Internet environments without hooking up to a computer system. With SNMP card installed, the UPS can be remotely monitored and controlled via the Internet with a web browser.

or

True Relay Contact card:

The True Relay Contact card provides six relay output signals for critical UPS statuses that are required by telecom system, alarm management system and other industrial applications.



Multiple UPS Software Selection

The UPS application software provides the functions of remote UPS status monitoring, self-diagnostic, power problem analysis, remote on/off control, scheduling self-test and auto file saving during unattended shutdowns. Variable platforms are available such as Novell NetWare, Windows95/98/2000/ME/XP, Linux, FreeBSD and different publications of UNIX base. (consult your dealer for OS compatibility)

EPO and Maintenance Bypass Switch

Standard HS8KVA and HS10KVA are built-in with an Emergency Power Off (EPO) connector and optional Maintenance Bypass Switch that complies with industrial requirements to ensure a safe operating environments.



| Model | HS1000 | HS2000 | HS3000 | HS8000 | HS10K |
|--|---|-----------|-----------|---|---------|
| INPUT | | | | | |
| Voltage [Vac] | 80-140 or 160-280 | | | 160-280 | |
| Frquency (Hz) | 50/60+/-10%(Auto Sensing) | | | | |
| Phase | Single (3 in 1 out 8 and 10 kva available, consult us) | | | | |
| Input Power Factor | >0.98 | | | | |
| OUTPUT | | | | | |
| Voltage [Vac] | 110/115/120 or 220/230/240 | | | 220/230/240 | |
| Capacity[VA/W] | 1000/700 | 2000/1400 | 3000/2100 | 8000/6.4KW | 10K/8KW |
| Power Factor | 0.7 | | | 0.8 | |
| Load Power Factor Range | 0.5 Lagging to Unity within KW rating of Unit | | | | |
| Wave Form | Sine Wave, THD<3% (no load to full load) | | | | |
| Voltage Regulation | + / -2% | | | | |
| Transient Response (ms) | +/-4% Under Full Load, Change and Corrected within 60ms | | | | |
| Frequency Stability | +/-0.5Hz (Free Running) | | | | |
| Synchronization | Slew Rate: 1Hz/Sec. Max. Synchronizing Window +/- 5% | | | | |
| Transfer Time | 0msec | | | | |
| Crest Factor | 3:1 | | | | |
| System Efficiency (AC to AC) | >80% | | | >85% | |
| DC Start | Yes | | | | |
| BATTERY | | | | | |
| Type | Sealed Lead Acid Maintenance Free | | | | |
| Quantity(pcs) | 3 | 6 | 10 | 16 | |
| Capacity | 7Ah | 7Ah | 7Ah | 9Ah | 12Ah |
| Voltage[Vdc] | 36 | 72 | 120 | 192 | |
| Run-time [Built-in Battery] | -15-30 mins depending on load | | | | |
| Recharge Time | -8 Hours to 90% | | | | |
| Supplementary Charger | Optional 200W/500W/1000W/2000W Chargers available | | | Factory Fitted Optional 2000W Chargers available | |
| DISPLAY | | | | | |
| LED | Utility, Battery, Inverter, Over Load, Load/Battery Level, Fault Conditions Normal, Fault, Warning Conditions | | | | |
| LCD Standard Readout | Input Voltage, Output Voltage, Output Frequency, Load Percentage, Inner Ambient Temperature, Battery Voltage, Fault Details | | | | |
| LCD-Advanced Readout | N/A | | | Error Code, Ground Fault, Phase Reverse, Overload | |
| PROTECTION | | | | | |
| Overload | | | | | |
| AC Mode (delay beforeswitching to bypass) | >105% continuously 105%-120% 15min. 120%-150% 30sec. >150% immediately | | | >120% 15min. 120%-150% 30sec >150% 10min. | |
| BackupMode (delay beforeswitching to bypass) | >105% delay 1.5 seconds then completely shutdown. | | | <120%30sec 120%-150% 10sec. Over 150% 10ms | |
| Short Circuit | Inverter Shutdown Halt | | | | |
| Overheat | Switch to Bypass | | | | |
| High Voltage Trip | Switch to Battery Mode | | | | |
| Battery Low | Alarm and Switch Off | | | | |
| Noise Suppression | Complies with EN50091-2 | | | | |
| Spike Suppression | Complies with EN61000-4-5 | | | | |
| ALARM | | | | | |
| Audible and Visual | Utility Failure, Battery Low, Transfer to Bypass, System Fault Conditions | | | | |

ablerex^{HS} TECHNICAL SPECIFICATIONS

| Model | HS1000 | HS2000 | HS3000 | HS8000 | HS10K |
|--|---|-------------|--------------------|---------------|-------|
| MECHANICAL | | | | | |
| Dimensions, 120V [WxHxD, mm] | 155x292x508 | 180x390x556 | 244x385x615 | Not Available | |
| Dimensions, 230V [WxHxD, mm] | 155x292x508 | 180x390x556 | 244x427x705 | 400x842x730 | |
| Net Weight[Kgs] 120V | -25 | -42 | -65 | | |
| Net Weight[Kgs] 230V | -25 | -42 | -55 | -160 | -183 |
| Outlets(NEMA 5-15R) 120V | 4 | 4+1(5-20R) | Terminals+2 | NA | |
| Outlets(IEC/Local) 230V | 1/2 | 3/2 | Terminals+2 | Terminal | |
| ENVIRONMENT | | | | | |
| Operating Temperature | 0°C - 40°C | | | | |
| Altitude | 0-2000m up to 40°C, 3000m up to 35°C | | | | |
| Humidity | 90% RH Maximum, Non-Condensing | | | | |
| Acoustic | <50dB [at 1 meter] | | <60dB [at 1 meter] | | |
| COMPUTER INTERFACE | | | | | |
| Interface Type | True RS232 signal and Contact Closure signal | | | | |
| SNMP Adaptability | Slot for Standard SNMP Card (Optional) | | | | |
| Standard Bundled Software Compatibility | UPSilon2000 for Novell NetWare, Windows® 95/98, Windows® NT, Windows® ME, Windows® 2000, Windows® XP, Linux and Free BSD | | | | |
| Optional Software | UPSilon for Unix, IBM AS/400 & SNMP Adapter, USBMate,...etc. | | | | |
| SAFETY CONFORMANCE | | | | | |
| Quality Assurance | ISO90001 Certified Company | | | | |
| Safety Standard | EN50091-1 | | | | |
| EMC Standard | EN50091-2, EN61000-3-2, EN61000-3-3, FCC Class A | | | | |
| Marks | CE, TUV/GS | | | CE | |

Specification subject to change without prior notice.



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**DESIGNED AND
ENGINEERED BY :**

Ablerex Europe s.r.l.
Strada Marosticana 81/15
36031 Povolara (VI) ITALIA
Tel : +39 0444 361321
+39 0444 365668
Fax : +39 0444 365191



UIS Abler Electronics (S) Pte Ltd
16 New Industrial Rd, #02-04
Hudson TechnoCentre,
Singapore 536204
Tel : +65 6282 6535
Fax : +65 6282 6343
Email : sales@ablerex-ups.com.sg

www.ablerex-ups.com.sg