

# AHA-H/HR Series Specification

MODEL	AHA-103H/HR	AHA-203H/HR	AHA-303H/HR	AHA-603H	AHA-104H	AHA-3104H	AHA-3154H	AHA-3204H
Capacity	1kVA/700W	2kVA/1400W	3kVA/2100W	6kVA/4200W	10kVA/7kW	15kVA/10.5kW	20kVA/14kW	
<b>INPUT</b>								
Phase	Single Phase					3 Phase		
Nominal Voltage	110Vac / 220Vac				1P2W 220Vac		3P4W 380Vac	
Voltage Range	160-300Vac(70%-100%load),140-300Vac (50%-70% load),110-300Vac (0%-50% load)				176-276Vac ±3Vac		304-478Vac	
Frequency	50Hz / 60Hz ± 4Hz							
Power Factor	≥0.95	≥0.97		≥0.98			≥0.95	
<b>OUTPUT</b>								
Voltage	220VAC ± 2% (230V or 240V re-settable via LCD panel) 110VAC ± 2% (110V, 115V or 120V re-settable via LCD panel)				220VAC ± 1% (230V or 240V re-settable via LCD panel)			
Frequency	Synchronized ( Line mode) : 50Hz or 60Hz +/-0.5% (Battery mode)							
Wave Form	True sine wave							
Distortion	Tower	≤3%(Linear load) ≤6%(Non-linear load)	≤4%(Linear load) ≤7%(Non-linear load)			≤4%(Linear load) ≤7%(Non-linear load)		
	Rack	≤4% (Linear load) ,≤7% (Non-linear load)				N/A		
Overload Capacity	112%~150% : 30sec. ; >150%: 200msec.				105%~130% : 10min. ; >130%: 1sec.			
Crest Ratio	3 : 1							
<b>BATTERY</b>								
DC Voltage	36V	96V				240V		
Capacity	12V / 7Ah×3 pcs	12V / 7Ah×8pcs	12V/ 7Ah×20pcs	12V/ 9Ah×20pcs	Depend on the capacity of external batteries			
Back-up Time	>5min	>9min	> 5min	> 8 min	> 5 min	Depend on the capacity of external batteries		
<b>CHARGER</b>								
Built-In /Option	1Amp/8Amp	1Amp/8Amp	2.1Amp/4.2Amp (2 steps)		4.2 Amp ( 2 Steps)			
Recharging Time	5 hrs to 90%		7 hrs to 90%	8 hrs to 90%	Depend on the capacity of external batteries			
<b>BYPASS</b>								
Automatic	Overload or UPS fault							
By Setting	Voltage range: 176~256V±20V (Re-settable via LCD panel)					NA		
Transfer Time	0 ms( 2.5ms inverter to bypass)				0 ms (AC to DC & inverter to bypass)			
<b>INDICATOR</b>								
LCD (Series)	UPS status, IP&O/P voltage/frequency , load % , battery voltage, battery capacity % , temperature, model spec., event log. LED: Normal (Green), Warning (Yellow), Fault (Red)							
LED (Series)	Normal (Green), Bypass(Yellow), Battery low (Yellow), Inverter (Green), Load% (5 LEDs), Battery % (5 LEDs), Fault (Red)							
<b>OUTLET</b>								
Tower	NEMA×3pcs or IEC320×4pcs	NEMA*3pcs+TB*1 or NEMA*6pcs or IEC320×6pcs	NEMA*3pcs+TB*1 or NEMA*6pcs or IEC320×3+ TBx1	Terminal blocks				
Rack	NEMA×4pcs or IEC320×4pcs	NEMA×2+TBx1 or IEC320×4pcs	NEMA×2+TBx1 or IEC320×1+TBx1	Terminal blocks				
<b>AUDIBLE ALARM</b>								
Battery Mode	Beeping every 4 seconds (re-settable)							
Battery Low	Beeping every second							
Overload	Beeping twice per second							
Fault	Beeping continuously							
<b>INTERFACE</b>								
RS-232 Interface	UPSilon2000 monitoring software for Windows all, Unix systems and Novell							
Multi-Interface Slot	SNMP card, AS 400, dry contact, USB selectable							
<b>Network</b>								
Surge Protection	RJ45 I/O port for Network or RJ 11 for Fax / Modem					N/A		
Parallel	N/A				Available (option)			
<b>ENVIRONMENT</b>								
Temperature	0 - 40 °C (32 - 104 °F)							
Humidity	0-95% (non-condensing)							
Audible Noise(At 1M )	< 45 dBA	< 50 dBA		< 55 dBA		< 60 dBA		
<b>PHYSICAL</b>								
Weight(Kg, without battery)	6.5 (Tower)	13.5 (Tower)	14.5 (Tower)	35	38	38.5	55	55
	8.0 (Rack)	9.5 (Rack)	10.5 (Rack)					
Weight(Kg, with battery)	15 (Tower)	34 (Tower)	35 (Tower)	90	93	—	—	—
	15.5 (Rack)	N/A (Rack)	N/A (Rack)					
Dimensions (W*H*D)mm	Tower	160*220*400	200*352*450			260*717*570		
	Rack		440*88*465	482.6*176*600		NA		

\* Tower Series: AHA-H,Rack Series: AHA-HR

\* Output power factor 0.8 is available

\* Rack Battery Bank(2U) is available for 8pcs( 1 set)12V/7Ah and 9 pcs( 3 sets)12V/7Ah batteries

\* 1kVA/3kVA 110V is available

\* All specification mentioned above are subject to change without prior notice



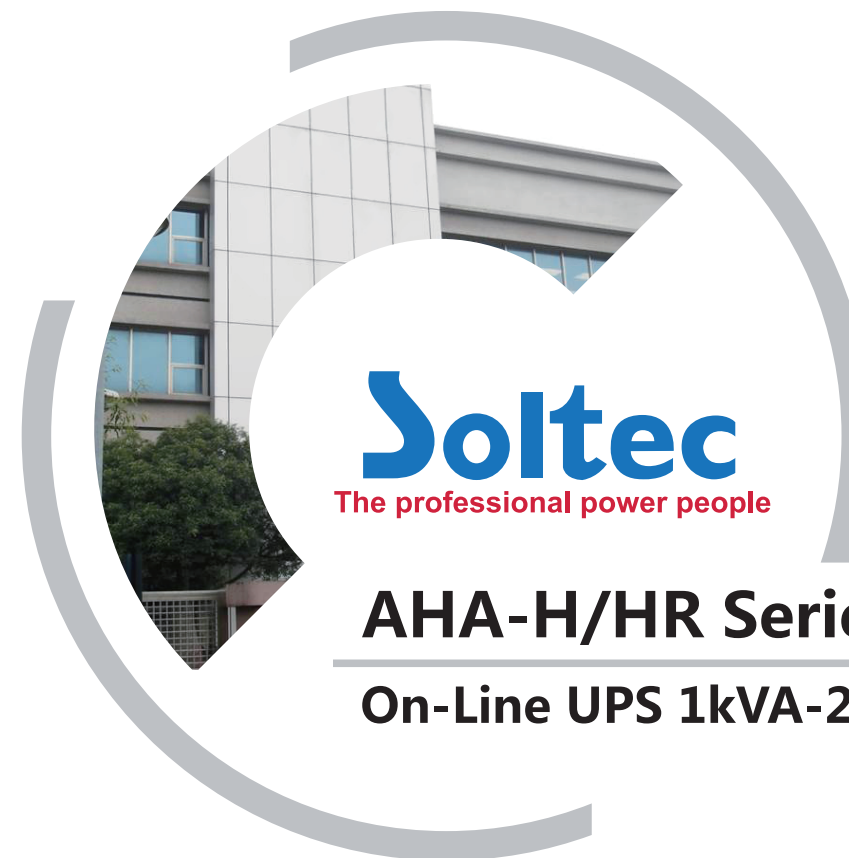
**Soltec**  
The professional power people

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## Features

- True sine wave double conversion on-line UPS
- Multiple Microprocessor High frequency design & DSP Technology
- Unity input power factor and wide input range
- Extended backup time
- Two-way dialogue interactive dot-matrix LCD control panel
- Detachable LCD or LED Control Panel selectable.
- Communication ports selectable: Smart RS232, SNMP, AS-400, USB and DB-9
- DC start and automatic self-diagnostic function
- Low heat dissipation in long time operation
- High efficiency design to save electricity
- Enhanced protections against lightning surges, disturbances etc.
- Designed to operate under harsh environment
- 6KVA-20KVA support Parallel Redundancy function & Capacity Expansion
- 10KVA-20KVA built in two-step charger to reduce charging time

## AHA-H/HR Series 1KVA-20KVA On-Line UPS

### Features & Advantages

**AHA-H/HR Series** On-Line is designed with latest technology, making it distinguished by its performance and reliability. The input range is extraordinary wide from 118V to 300V so that the UPS can still run well in areas of poor utility and be robust in various applications. It also eliminates unnecessary battery discharges to prolong the life expectancy of battery. The rectifier stage of AHA-H/HR series implements high frequency, PWM, and power factor correction method. Therefore, the input current is purely sine wave, and power factor can be over 95%.

**AHA-H/HR Series** have very small harmonic current drawn from the utility. That is, it generates no interference to the utility. Beside, the inverter of the unit adopts newest and tough IGBT, high frequency PWM method. So it can response quickly to load change, especially the impressing capsbility of starting cimputer load. All power stages are carefully designed to optimal efficiency so as to save the user's running cost, and minimize heat dissipation. The unit, controlled by the innovative software programs, can self-diagnose all the time and provides vsrious status and data displayed clearly on the panel.

#### LCD Control Panel

AHA-H/HR Series built-in intelligent two-way dialogue interactive dot-matrix LCD control panel provide monitoring as well as management access to the UPS. Detachable design, enable remotely control and status monitoring from remote site to suit users' convenience. An economical, plain LED display, exactly the same size as LCD panel is selectable.

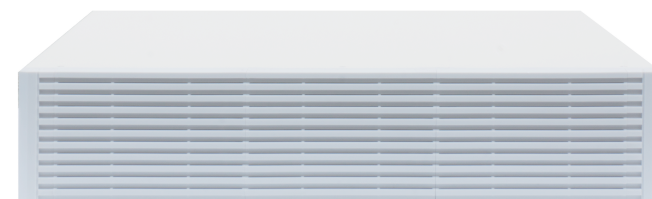


#### Tower and Rack Models

Tower and rack models are both available. Tower model can minimize occupied space. Rack mount model can fit in the equipment rack to make the server room neat and clean. Rack mount model UPS come with the same size battery bank which matches the UPS.

**AHA-HR 1K-2K-3K Rack**

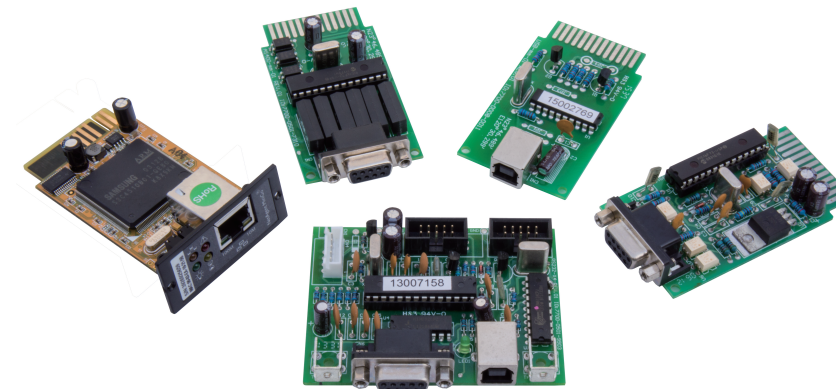
**Rack Battery Bank**



## AHA-H/HR Series 1KVA-20KVA On-Line UPS

#### 6KVA-20KVA N+ 1 Parallel redunfancy

6KVA-20KVA, specially designed to provide redundant power protection solution, is able to perform parallel up to 3 UPS systems. With the high frequency PWM technology, the UPS attains high input power factor over 95% and avoids significant harmonic interference on the power workshop. The higher efficiency of the inverter enhances the overall efficiency of UPS and reduces the noise of the inverter as well.



#### Multiple interfaces cards

with a Multi-interface slot and an additional multi-interface card, various communications combinations are selectable. Including RS232, SNMP, RS485, AS - 400, modbus, USB, dry contact and customized interfaces. All interfaces enable at the same time.



**6K-20K Paeallel Redundancy**

**AHA-H 6K-20K Tower**



**AHA-H 2K-3K Tower**

**AHA-H 1K Tower**



**LED**

**LCD**