

RUPSOL Series LBH

Series LBH DSP Control HF Online UPS (1 - 10KVA 1/1 Phase)

SYSTEM INTRODUCTION

BH-V Series is a full DSP controlled, Adopt 3 level technology, online double conversion, 1/1 Phase pure sine wave online UPS, with smart design and high reliable, this system overall efficiency > 95%, BH-V series can be defined as a high reliability and energy saving green power.



SYSTEM FEATURES

■ High Performance Index

- Latest HF switching power supply rectifier and PFC Technology. Input Power Factor 0.99, THDI ≤ 3.5%, online single phase with double conversion structure, compatible with 208/220/230/240Vac, 50/60Hz Grid supply system.
- Wide Input Range from 110-300Vac in 100% load (If Load is below 50%, it can be reached even equal or lower than 110Vac) which can reduce the battery usage time and maximum the battery life span.
- Adopt Latest 3 Level technology to meet the critical loads with output PF = 1, overall efficiency up to 96% (98.5% under ECO mode), BH-V is a energy saving green powers.
- Powerful overload ability with output short circuit protection technology, high compatibility with all kinds of generators:
 - 1-3 KVA: 120% overloads for 1 minute. 150% for 60ms transfer to bypass and alarm.
 - 6-10KVA: Utility mode: 102-110%:30 minutes, 110-130%:10 minutes, 130-150%:1 minute, ≥ 150%:500ms
 - 6-10KVA: Battery mode: 102-110%:10 minutes, 110-130%:1 minutes, 130-150%:10s, ≥ 150% 500ms.
- Intelligent charger system, charging current 1-12A adjustable, adopt constant charging, float charging and equalized charging design, it can be maximum the battery life and highly meet different charging requirements from customers.
- Powerful battery anti-reverse connected alarm and protection, when the DC is not connect, UPS will alarm DC disconnect, when the DC reversely connected due to the intention of installer, UPS cannot turn on and shows DC failure, only when the DC connect is correct the UPS will work in normal.
- Battery configuration: optional with 16/18/20pcs without changing any spares.
- Powerful battery maintenance function, users can do the battery test on the LCD screen directly, do not need administrator do the battery test in field. This can greatly avoid the UPS shutdown when the battery voltage low, (intelligent deep battery test, when the DC Voltage below 11V it will recovery to utility mode automatically).
- Smart identify of short circuit, if the short circuit lasts within 3s, UPS will restart on inverter automatically, if the short circuit lasts over 3s, UPS will lock the inverter with long time alarm.
- Under emergency status, UPS output can be remote controlled under EPO mode.
- Battery Self-testing can be done on the LCD directly. Battery Capacity, UPS working mode (Online or ECO first) can be set on the screen. All history faults and statistics can be seen on the screen to help user analyze the working summary of the UPS.
- Multi-page history record can be tracked on LCD highly improved the efficiency for site engineers to check the running days and cumulative running status of UPS.

■ Rich Optional Accessories

- BH-V Series can use SNMP Network Adapter, RS485/Dry Contact, USB port,
- and EPO function to build up a remote control and monitoring system.

Compatible applications/loads



► SPECIFICATION

Model	LBH10S	LBH10L	LBH20S	LBH20L	LBH30S	LBH30L	LBH60S	LBH60L	LBH100S	LBH100L
Capacity	1KVA/1KW		2KVA/2KW		3KVA/3KW		6KVA/6KW		10KVA/10KW	
Host Machine Specification										
UPS Structure	Double Conversion High Frequency Online									
Appearance	Tower or Rack-Mount Type									
Overall Efficiency (AC-AC)	>95%									
Noise(In 2 meters)	< 50dB									
Working Temp	-20℃ ~ +40℃									
Storage Temp	-20 ~60℃(Without BATs)									
Humidity	<95% Non Condensing									
Safety Standard	GB/T14715									
EMC Standard	EN 50091/EN62040-1/2									
Protections	Overload, Short-Circuit, Over Temp., Utility PowerVoltage High/low, BAT Voltage High/low									
Parallel Redundancy	None							Optional Accessory		
Generator Compatibility	Available									
DC Start	Available									
Manual Maintenance Bypass	None							Optional Accessory		
Display	Premium Version LCD Display: Multi-Language with all kinds of messages. Input/ Output/bypass Status, ECO Mode , charging status, load status, Rectifier status, INV. Temp.; Working (days); SN; Calendar time; UPS model & structure; Version No.; log records; fault records; language set; ECO set; time & calendar set; battery test,etc.									
	Standard Version: LCD display: Input/ Output/bypass Status, ECO Mode, charging status, load status, Rectifier status, INV. Temp									
Alarm	Auto									
Mute	Auto									
Rectifier Specification										
Input Voltage Range	100% Load:160~300Vac, 50% Load:115~300Vac									
Input Frequency Range	40-70Hz(Auto Tracking)									
Input PF	0.99									
THDI	<3% (Linear Load); <5% (Non-Linear Load);									
Output Specification										
Output Voltage	220/230/240Vac Adjustable									
Output PF	1 (No Lag)									
Output Voltage Regulation	220Vac±1%(Static Load); 220Vac±2%(50-0% Sudden Change); 220Vac±3%(100-0% Sudden Change)									
Output Freq.(Online Mode)	When 46Hz ≤Input Freq.≤ 54Hz , Input Freq.= Output Freq. ; When Input Freq.<46Hz or >54Hz, Locked at 50Hz									
Output Freq. (BAT Mode)	50Hz± 0.2%									
Output Waveform	Pure Sine wave									
Distortion	<1%(Linear Full Load), < 3%(100% Non-Linear Load)									
Overload	> 125%: More than 1 min					> 120%: More than 1 min				
	> 150%: 300 ms transfer to bypass					> 150%: 300ms transfer to bypass				
Crest Ratio	3 : 1									
Efficiency	>95%									
Short-Circuit	Circuit Auto Protection, Output Voltage/Current 0									
Output Abnormal	INV Output Auto-Locked Protection									
Noise Suppression	EMI/RFI Wavefilter									
BAT Low	Shutdown Protection									
Dynamic Response	3% at full load, recovering in 20ms									
Auto-Restart	Available									
Software Control	Available									
Bypass Specification										
Static Bypass Transfer Time	0ms									
StaticBypass Range	80Vac± 5%~285Vac±5%									
Bypass -> INV Transfer Time	2ms									
Battery Specification										
Type	Sealed Lead Acid Maintenance Free									
Std. Model Rated Volts/Units	12V 7/9Ah×2P		12V 7/9Ah×4P		12V 7/9Ah×6P		12V 7/9Ah×16P		12V 7/9Ah×16P	
Backup time	5-10min		5-10min		5-10min		5-15min		5-15min	
Ext. Model Rate Volts/Units	24Vdc	36Vdc	48Vdc	72Vdc	72Vdc	96Vdc	192Vdc	192/240Vdc	192Vdc	192/240Vdc
Std. Model Charging Current	1A		1A		1A		1A		1A	
Ext. Model Charging Current	1-12A		1-12A		1-12A		1-12A		1-12A	
Communication Specification										
Communication Port	Rs232 (Std.); /SNMP/RS485/ Dry Contact (Optional Accessory)									
Remote Software	Multi-functional Monitoring System, Online and BAT Mode Status, BAT Fault, Remote Control									
Physical Parameters										
Tower Size mm(W×D×H)	145×285×215		145×400×215		190×420×318		190×400×215	190×390×705	190×360×335	190×360×335
Net Weight Kg	9	5	15	7	20	7.5	46	10	46.5	10.5
Size mm(RM, W×D×H)	440×400×88/2U		440×400×88/2U		440×540×88/2U		440×470×88/2U		440×470×88/2U	
Net Weight Kg	9	5	15	7	20	7.5	/	10	/	10.5

Note: Specification are subject to change without further notice.