

BH-R Series Online HF UPS(1-20KVA)



System Introduction

BH-R Series is a double conversion 1 Phase In/1 Phase Out, 3 Phase In/ 1 Phase Out pure online UPS with MCU control. It has been designed for mainstream high frequency double conversion online structure, which provide outstanding stability and reliability.

BH
Series



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System Features

High Performance Index

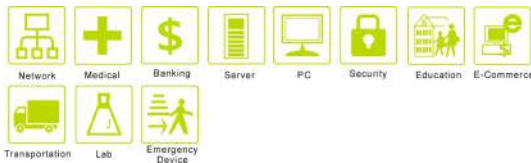
- ◆ Latest HF switching power supply rectifier and PFC Technology. Input Power Factor 0.99, THDI \leq 3.5%
- ◆ Wide Input Range from 160~300Vac on full load (100% Load, If Load is below 50%, it can be reached even equal or lower than 115Vac). On 3 Phase Model Input range is from 304 ~ 478 Vac.
- ◆ Latest IGBT technology to achieve high overall efficiency up to 90%. Compatible with 220/230/240V and 50/60 Hz Grid Supply Systems.
- ◆ Intuitive LCD/LED display, which comprehensively and intuitively reflect the state of power system statuses, parameters, and other information. Users can modify and operate based on individual needs on these friendly displays.

Rich Optional Accessories

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



Compatible applications/loads



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BH Series



Specifications

Capacity	1KVA/0.8KW	2KVA/1.6KW	3KVA/2.4KW	6KVA/4.8KW	10KVA/8KW	10KVA/8KW	15KVA/12KW	20KVA/16KW	
Host Machine Specification									
UPS Structure	Double Conversion High Frequency Online								
Appearance	Tower or Rack-Mount Type								
Overall Efficiency (AC-AC)	> 90%								
Noise (In 2 meters)	< 50dB								
Working Temp.	0-40°C								
Storage Temp.	-15 ~ 60°C (Without BATs)								
Humidity	< 95% Non-condensing								
Safety Standard	GB/T14715								
EMC Standard	EN 50091-1/2								
Protections	Overload, Short-Circuit, Over Temp., Utility Power Voltage High/low, BAT Voltage High/low								
DC Start	Available								
Generator Compatibility	Available								
Manual Maintenance Bypass	None				Optional				
Display	LCD/LED: UPS Status, INV Status, Bypass Status, BAT Status, BAT %, Load %, Fault Messages								
Alarm	Auto								
Mute	Auto								
Rectifier Specification									
Input Voltage Range	100% Load:160~300Vac, 50%Load:115~300Vac		175 ~ 280Vac			304 ~ 478Vac			
Input Frequency Range	45-65Hz (Auto-Tracking)								
Input PF	0.99								
THDI	< 5%								
Output Specification									
Output Voltage	220Vac								
Output PF	0.8, 0.9 optional								
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% (None-Linear Full 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	> 91%								
Short-Circuit	Circuit Auto Protection , Output Voltage/Current 0								
Output Abnormal	INV Output Auto-Locked Protection								
Noise Suppression	EMI/RFI Wave filter								
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								
Static Bypass Range	80Vac ± 5% ~ 285Vac ± 5%								
Bypass -> INV Transfer Time	2ms								
Battery Specification									
Type	Sealed Lead Acid Maintenance Free								
Std. Model Rated Volts/Units	12V/7Ah×2 Piece	12V/7Ah×4 Piece	12V/7Ah×6 Piece	12V/7Ah×16 Piece	12V/7Ah×16 Piece	12V/7Ah×16 Piece	—————	—————	
Backup time	5-15min	5-15min	5-15min	5-15min	5-15min	5-15min	—————	—————	
Ext. Model Rate Volts/Units	36Vdc	72Vdc	96Vdc	192Vdc	192Vdc	192Vdc	192Vdc	192Vdc	
Std. Model Charging Current	1A	1A	1A	1A	1A	1A	1A	1A	
Ext. Model Charging Current	6A	7A	7A	7A	7A	7A	7A	7A	
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									
Size mm (D×W×H)	282×145×220	397×145×220	421×190×318 397×145×220	6/10K(Std.) : 369×190×688 6/10K(Ext.) : 369×190×318	6/10K(Std.) : 369×190×688 6/10K(Ext.) : 369×190×318	15/20K(Std.) : 442×190×688 15/20K(Ext.) : 442×190×318	—————	—————	
Net Weight Kg	9.8/4.1	17/6.8	27.6/7.4	63/12	64/13	68/17	132/17	132/23	

Note : Specification are subject to change without further notice.



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BH-F Series HF Online UPS (1-20KVA)



System Introduction

BH-F Series is a double conversion 1/1, 3/1 Phase pure online UPS with DSP control. It has been designed for mainstream double conversion system with N+1 or N+X parallel redundancy feature, and manufactured with advanced SMT international standard, which provide outstanding stability and reliability.

BH
Series

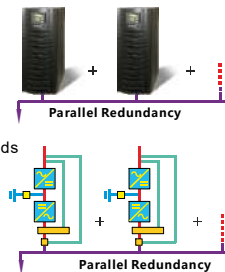


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System Features

High Performance Index

- Latest HF switching power supply rectifier and PFC Technology. Input Power Factor 0.99, THDI≤3.5%
- Wide Input Range from 160~300Vac on full load (100% Load, If Load is below 50%, it can be reached even equal or lower than 115Vac). On 3 Phase Model Input range is from 304 ~ 478 Vac.
- Latest IGBT technology to achieve high overall efficiency up to 90%. Compatible with 220/230/240V and 50/60 Hz Grid Supply Systems.
- Powerful overload ability with output short circuit protection technology: 1-3 KVA: 120% overloads for 1 minute. 150% for 60ms transfer to bypass and alarm. 6-10KVA: 105-130% overload for 10 minutes, >130% overload for 60ms.
- Systems have parallel redundancy feature to increase the system reliability level.
- Can be connected with all kinds of generators to save customers costs.
- Intelligent temperature compensator and low wave charger can extend battery lifetime.
- Intuitive dual LCD and LED display panels, which comprehensively and intuitively reflect the state of power system statuses, parameters, and other information. Users can modify and operate based on individual needs on these friendly displays.
- 19" inch Rack Mount structure design. It can be compatible with standard communication cabinet to greatly save data room spaces.



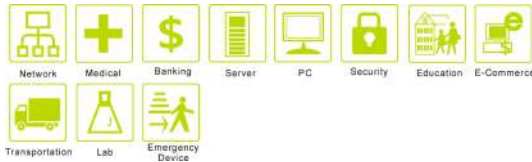
Safe and Reliable

- BH-F Series adapts DSP technology to control UPS all kinds of power function processes (including Parallel function) in order to increase system reliability.
- BH-F Series adapts sensitive peak current protection circuit design to protect the system from damages due to short-circuit, cold load impacts.
- 90% of system components are from international famous brands. All devices has been aged and fully tested for at least 24 hours before leaving the factory.

Rich Optional Accessories

BH-F 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



19" Inch Rack-Mount

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BH Series



Specification

Model	BH10S	BH10L	BH20S	BH20L	BH30S	BH30L	BH60S	BH60L	BH100S	BH100L	BH100L31	BH150L31	BH200L31	
Capacity	1KVA/0.8KW		2KVA/1.6KW		3KVA/2.4KW		6KVA/4.8KW		10KVA/8KW		10KVA/8KW/15KVA/12KW/20KVA/16KW			
Host Machine Specification														
UPS Structure	Double Conversion High Frequency Online													
Appearance	Tower or Rack-Mount Type													
Overall Efficiency (AC-AC)	> 90%													
Noise (In 2 meters)	< 50dB													
Working Temp	0-40°C													
Storage Temp	-15 ~ 60°C (Without BATs)													
Humidity	< 95% Non Condensing													
Safety Standard	GB/T14715													
EMC Standard	EN 50091-1/2													
Protections	Overload, Short-Circuit, Over Temp., Utility Power Voltage High/low, BAT Voltage High/low													
Parallel Redundancy	None									Available				
Generator Compatibility	Available													
DC Start	Available													
Manual Maintenance Bypass	None									Optional				
Display	LCD/LED: UPS Status, INV Status, Bypass Status, BAT Status, BAT %, Load %, Fault Messages													
Alarm	Auto													
Mute	Auto													
Rectifier Specification														
Input Voltage Range	100% Load:160~300Vac, 50% Load:115~300Vac						175 ~ 280Vac			304 ~ 478Vac				
Input Frequency Range	45-65Hz (Auto Tracking)													
Input PF	0.99													
THDI	< 5%													
Output Specification														
Output Voltage	220Vac													
Output PF	0.8													
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 > 150%: 300 ms transfer to bypass						> 120%: More than 1 min > 150%: 300ms transfer to bypass							
Crest Ratio	3 : 1													
Efficiency	> 90%													
Short-Circuit	Circuit Auto Protection, Output Voltage/Current 0													
Output Abnormal	INV Output Auto-Locked Protection													
Noise Suppression	EMI/RFI Wave filter													
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													
Static Bypass Range	80Vac± 5%~285Vac±5%													
Bypass -> INV Transfer Time	2ms													
Battery Specification														
Type	Sealed Lead Acid Maintenance Free													
Std. Model Rated Volts/Units	12V/7Ah×2/3P		12V/7Ah×4/6P		12V/7Ah×6/8P		12V/7Ah×16P		12V/7Ah×16P					
Backup time	5-15min		5-15min		5-15min		5-15min		5-15min					
Ext. Model Rate Volts/Units	24/36Vdc	36Vdc	48/72Vdc	72Vdc	72/96Vdc	96Vdc	192Vdc	192Vdc	192Vdc	192Vdc	192Vdc	192Vdc	192Vdc	
Std. Model Charging Current	1A		1A		1A		1A		1A					
Ext. Model Charging Current		5A		5A		5A		5A		5A	5A	5A	5A	
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(D×W×H)	355×145×220			433×190×318			6/10K Std.: 500×240×620 6/10K Ext.: 500×240×460				500×248×620			
Net Weight Kg	9.8/11.9	6.5	18.523	10.5	21/25.1	11.5	57	20	67.5	22	27	35	35	
Size mm(RM, D×W×H)	310×440×88/2U			436×440×88/2U			438×540×178/4U							/
Net Weight Kg	11.5	7.5	/	10	/	14	/	18	/	20	25	/	/	

Note:Specification are subject to change without further notice.



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