

for your cable networks and communication systems...

# Solutions

Industry Grade UPS

## MS Series Uninterruptible Power Supply



- Sine-wave Pulse Width Modulation (SPWM) technology
- Dual conversion online IGBT inverter with static bypass topology
- Multi-microprocessor control
- Sine wave output, zero transfer time
- Smart LCD + LED display
- Protection against all power problems
- N+1 Redundant parallel operation
- User-friendly bypass protection
- Self-test on startup
- Generator compatibility
- On-battery startup (cold-startup)
- RS-232 communication interface + Intelligent Slot
- Optional SNMP Adapter and parallel connection kit





### **MS Series Uninterruptible Power Supply**

#### Nominal Specifications (Tower, external batteries)

Model	MS-2KL	MS-3KL	MS-6KL		
Rated Power	2000VA/1600W	3000VA/2400W	6000VA/4800W		
Input					
Voltage	100VAC, 120VAC, 220VAC or 240VAC				
Voltage range	±25%				
Frequency	50Hz or 60Hz ±5%				
Output					
Voltage	100VAC, 120VAC, 220VAC or 240VAC				
Voltage regulation	±2% at battery mode				
Frequency	50Hz or 60Hz (±0.5% at battery mode)				
Waveform	Sine wave				
Power factor	0.8				
Harmonic distortion	T.H.D. <3% (linear load)				
	T.H.D. <5% (non-linear load)				
Load crest ratio	3:1				
Overload capacity	125% - 150%, bypass in 1 minute; >150%, bypass in 200ms				
Transfer characteristic	0ms				
Battery					
Туре	Sealed maintenance free (SMF) VRLA battery				
Voltage	96VDC (72VDC optional)	96VDC (72VDC optional)	192VDC		
Charging time	Depends on capacity of battery bank(s)				
Backup time	Depends on capacity of battery bank(s)				
Environmental					
Operating temperature	0 to 40°C / 32°F to 104°F				
Relative humidity	0 to 90% non-condensing				
Noise	<58dB				
Mechanical					
Communication interface	RS-232 and Intelligent Slot				
LCD display	Input / output voltage, input / output frequency, battery voltage, load capacity and temperature				
LED display	Operation mode, line status, battery status and inverter status.				

#### **Optional Features**



#### Multi-purpose Outlet (MPO)

- > 4 independent MCB-controlled sockets
- > Built of durable powder coated material
- > Easy mounting on shelf of GM enclosure
- > Other types of sockets applicable



- PowerNET<sup>™</sup> SNMP Adapter
  > Support for HTTP, SNMP and DHCP protocols
  > Support for Telnet and Hyper Terminal
- > Support for automatic startup and show-down
- Operating status monitoring and displayAdministration through LAN
- > Fully programmable remote control
- > Multiple-client administration
- > E-mail notification on emergency events
- > Automatic recording history log data



#### **MS Series Uninterruptible Power Supply**

#### Nominal Specifications (Tower, external batteries)

Model	MS-10KL	MS-15KL	MS-20KL
Rated Power	10000VA/8000W	15000VA/12000W	20000VA/16000W
Input			
Voltage	110VAC, 120VAC, 220VAC or 240VDC		
Voltage range	±25%		
Frequency	50Hz or 60Hz ±5%		
Output			
Voltage	110VAC, 120VAC, 220VAC or 240VDC		
Voltage regulation	±2% at battery mode		
Frequency	50Hz or 60Hz (±0.5% at battery mode)		
Waveform	Sine wave		
Power factor	0.8		
Harmonic distortion	< 3% of T.H.D. with linear load		
	<5% of T.H.D. with non-linear load		
Load crest ratio	3:1		
Overload capacity	125% - 150%, bypass in 1 minute; >150%, bypass in 200ms		
Transfer characteristic	0ms		
Battery			
Туре	Sealed maintenance free (SMF) VRLA battery		
Voltage	192VDC		
Charging time	Varies on capacity of battery bank(s)		
Backup time	Varies on capacity of battery bank(s)		
Environmental			
Operating temperature	0 to 40°C / 32°F to 104°F		
Relative humidity	0 to 90% non-condensing		
Noise	<58dB		
Mechanical			
Communication interface	RS-232 and Intelligent Slot		
LCD display	Input / output voltage, input / output frequency, battery voltage, load capacity and temperature		
LED display	Operation mode, line status, battery status and inverter status.		

#### **Optional Features**



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#### Fangyuan Electric Apparatus Co., Ltd

Weixu S.Road, Anqiu, Weifang, P.R.China-262100 Tel: +86-536-4328089 / 4329233 Fax: +86-536-4329121

E-mail: fydq@fydq.com.cn Http://www.fydq.com.cn www.fydq.com.cn