



# AP160N

online UPS COMPACT

Rack-tower convertible 1-10 kVA

- LOCAL AREA NETWORKS (LAN)
- SERVERS
- DATA CENTERS

- INTERNET CENTERS (ISP/ASP/POP)
- INDUSTRIAL PLCS
- EMERGENCY DEVICES (LIGHT, ALARM)

- ELECTROMEDICAL DEVICES
- TELECOMMUNICATION DEVICES
- INDUSTRIAL APPLICATION

# AP160N series

The highest power density and reliability meet the characteristics of upgraded superior AP160N Series, which is the perfect solution for the most critical loads, as servers and IT networks.

## COMMON FEATURES:

- **Excellent Reliability**
- **High Power Density**
- **Flexible Settings**
- **Compact Solution**
- **Lower Power Auto-consumption**
- **Long run time Model**



### COMMON FEATURES

#### EXCELLENT RELIABILITY

- DSP technology fully controlled
- Rotary segment LCD display with easy access
- Self monitoring and fault diagnosis

#### HIGH POWER DENSITY

- Wide input voltage range
- 0,9 load PF increase the power availability
- Input power factor correction for the lowest current distortion

#### FLEXIBLE SETTINGS

- Selectable configuration via LCD: online, ecomode and frequency converter mode (CVCF)
- EPO connector for emergency power off

#### COMPACT SOLUTION

- Higher power performance in slim height for 19" rack space
- Internal batteries included, with easy replacement
- Standard battery connector for additional backup time

#### LOWER POWER AUTO-CONSUMPTION

- Very high efficiency
- Ecomode operation available for efficiency up to 97%
- Lower heating dissipation

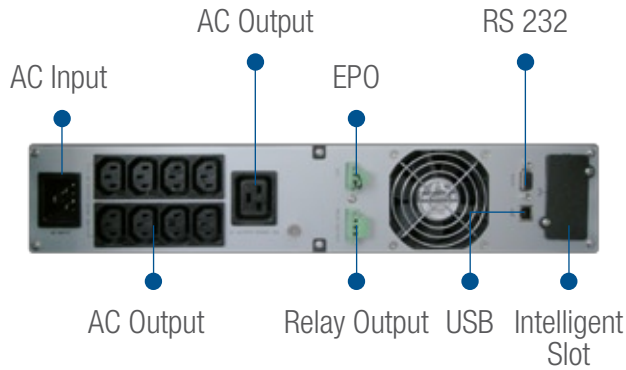
#### LONG RUN TIME MODEL

- Dedicated solution available with super charger for long autonomy
- Using external batteries with large capacity with dedicated battery pack



# AP160N

**1kVA to 3kVA**



- MENU:**
- UPS STATUS
  - BATTERY CAPACITY
  - LOAD LEVEL
  - INPUT/OUTPUT VOLTAGE
  - INPUT/OUTPUT FREQUENCY
  - FAULT/WARNINGS
  - SETTING MODE

## FLEXIBLE SETTINGS

- Load segments (outlet) control
- Standard single dry contact port programmable

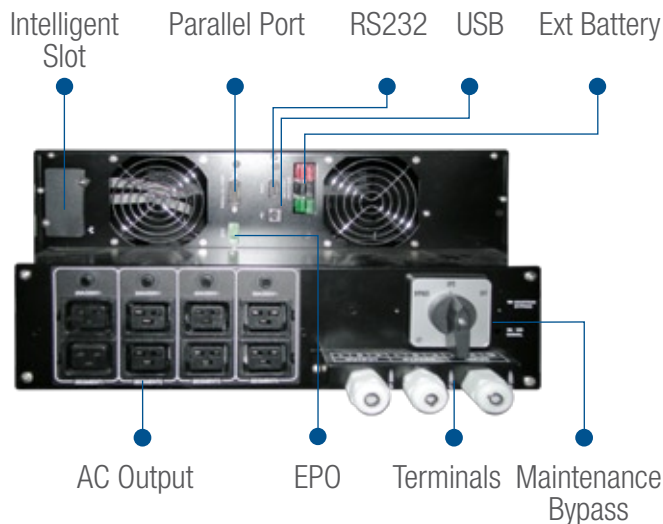
## COMPACT SOLUTION

- Slim 2U height for 19" rack space

## LOWER POWER AUTO-CONSUMPTION

- High efficiency up to 90%

**6kVA to 10kVA**



- MENU:**
- UPS STATUS
  - BATTERY CAPACITY
  - LOAD LEVEL
  - INPUT/OUTPUT VOLTAGE
  - INPUT/OUTPUT FREQUENCY
  - FAULT/WARNINGS
  - SETTING MODE

## FLEXIBLE SETTINGS

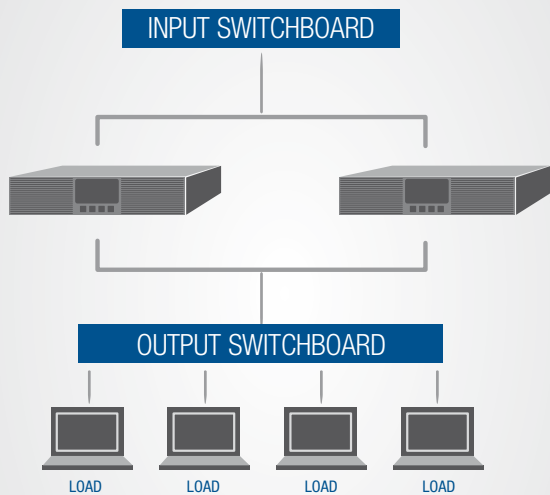
- Redundant parallel 1+1 configuration
- Optional hot swappable PDU with power segment outlets and mechanical maintenance bypass switch

## COMPACT SOLUTION

- 3U package for the 6kVA version and 5U package for the 10kVA, with internal batteries included
- Dual inputs, with separated bypass

## LOWER POWER AUTO-CONSUMPTION

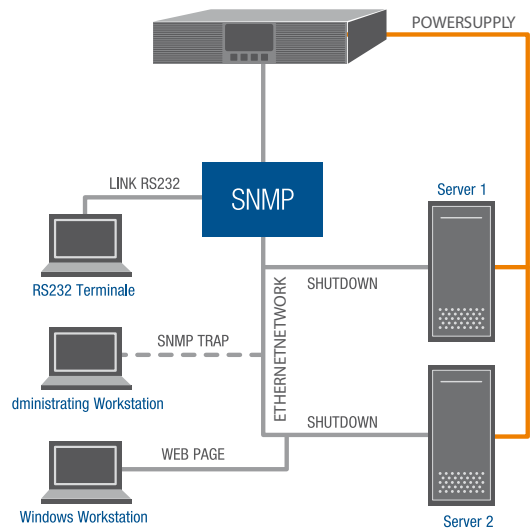
- Efficiency greater than 93%



AP160N 6kVA to 10kVA UPS in parallel configuration to meet most demanding power requirement. Increase power availability and flexibility.

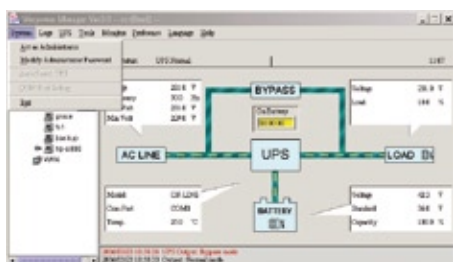
Parallel Redundancy feature provides economic power solution for system integration. Furthermore, parallel redundancy feature equally shares the load to maximize UPS performance, and more secure UPS continuous operation.

## Direct Connection with Ethernet Network



## Communication and Power Management Solutions

WinPower CD is packed with UPS, and can also be downloaded from the internet. It has the function to remote monitor and control UPS, warning notifications through broadcast and mobile phone, multi-shutdown PCs, and schedule UPS self-test. This unique software provides complete power protection for computer system during power failure. The software supports lots of O/S including Windows family, Linux, Sun Solaris 7/8/9, FreeBSD, IBM AIX 4.3x, 5.1x, and HP-UX 11.x. More than that, to offer increased benefits for our customers, we have also released USB version MAC version on the internet.



### INTERFACE OPTION:

SNMP CARD



RELAY CARD/AS400



MODBUS INTERFACE



- Power flow display for monitoring UPS status
- Scheduled system shutdown/restart
- Scheduled UPS test
- Warning notification via E-mail / Pager
- Warning notification via Broadcast
- Password security protection
- Remote Monitor / Control via LAN

- Multi-language versions: English, German, French, Italian, Spanish, Portuguese and Chinese
- Selectable User Interface (Background)
- UPS Parameter setting
- Record logs for analysis
- SNMP Network card allows management of UPS across LAN using any of the main network communication protocols – TCP/IP and network interface via SNMP.

# AP160N

TECHNICAL SPECIFICATIONS												
Model	AP160N	1K	1KS*	2K	2KS*	3K	3KS*	6K	6KS*	10K	10KS*	
Power Rating	1000VA/900W		2000VA/1800W		3000VA/2700W		6000VA/5400W		10000VA/9000W			
INPUT												
Rated Voltage	220Vac / 230Vac / 240Vac											
Voltage Tolerance	120 ÷ 276 Vac											
Transfer Voltage Range	Based on load percentage 100%/50%											
Line Low Transfer	176Vac (± 3%) / 120Vac (± 3%)											
Line High Transfer	276Vac (± 3%)											
Frequency Range	45Hz÷55Hz / 54Hz÷66Hz											
THDi%	< 5% at full load											
Power Factor	> 0.99 (I/P220Vac, full RCD load)											
OUTPUT												
Rated Voltage	208Vac** / 220Vac / 230Vac / 240Vac											
Voltage Regulation	± 1%											
Rated Frequency AC mode	50/60 ± 0,2%											
Crest Factor	3:1											
Harmonic Distortion	≤ 2% THD ( Linear Load)											
Output Waveform	Pure Sinewave											
Power factor	0,9											
BATTERY												
Type	Sealed lead acid battery, maintenance free											
Rating	12V/7.2Ah	36Vdc	12V/9AH	48Vdc	12V/9AH	72Vdc	12V/5AH	180Vdc	12V/9AH	240Vdc		
Numbers of Batteries	3	Depending on the capacity of external batteries	4	Depending on the capacity of external batteries	6	Depending on the capacity of external batteries	15	Depending on the capacity of external batteries	20	Depending on the capacity of external batteries		
Backup Time (typical load)	> 6 minutes		> 6 minutes		> 6 minutes		> 5 minutes		> 7 minutes			
Recharge Time	3 hours to 90%		3 hours to 90%		3 hours to 90%		3 hours to 90%		3 hours to 90%			
Charging Voltage	41.1 ± 0.6Vdc		54.6 ± 0.4Vdc		81.9 ± 0.4Vdc		204.7 ± 0.4Vdc		273.0 ± 0.4Vdc			
GENERAL CHARACTERISTICS												
Transfer time (Inverter to Bypass)	0ms											
Dual Input to Bypass	N/A as standard									YES as standard		
Parallel configuration	N/A						YES as optional					
Efficiency (online mode)	> 87%		> 89%		> 90%		> 93%					
Dimensions WxDxH (mm)	438x435x2U		438x435x2U		438x560x2U		438x560x3U		438x560x5U			
Weight UPS case (kg)	15.3	9.1	30.5	12.3	33.2	13.5	46.5	18.0	82.5	32.5		
Operating Temperature	0-40° C											
Humidity	0-95% (non-condensing)											
Noise Level (@ 1m)	<45dB			<50dB				<55dB				
Interface standard via Smart USB	WinPower Software supports: Windows 95/98/NT/2000/XP/ME, Linux, Sun Solaris, IBM Aix, Compaq True64, SGI IRIX, FreeBSD, HP-UX, and MAC											
Interface for Intelligent Slot	SNMP /AS400 Card / Modbus all optional											
Compliance	IEC 61000-4, IEC 62040-1, IEC 62040-2, IEC 62040-3, IEC 60950-1, IEC 62040-1, ETS 300019-2-2											

\* ks version are provided with battery extra charger

\*\* Derate to 90% with 208Vac output voltage.

Note: product specifications are subject to change without further notice.



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**G-Tec Europe Srl** in Vicenza - Italy

**G-Tec Asia Pacific Pte Ltd** in Singapore



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