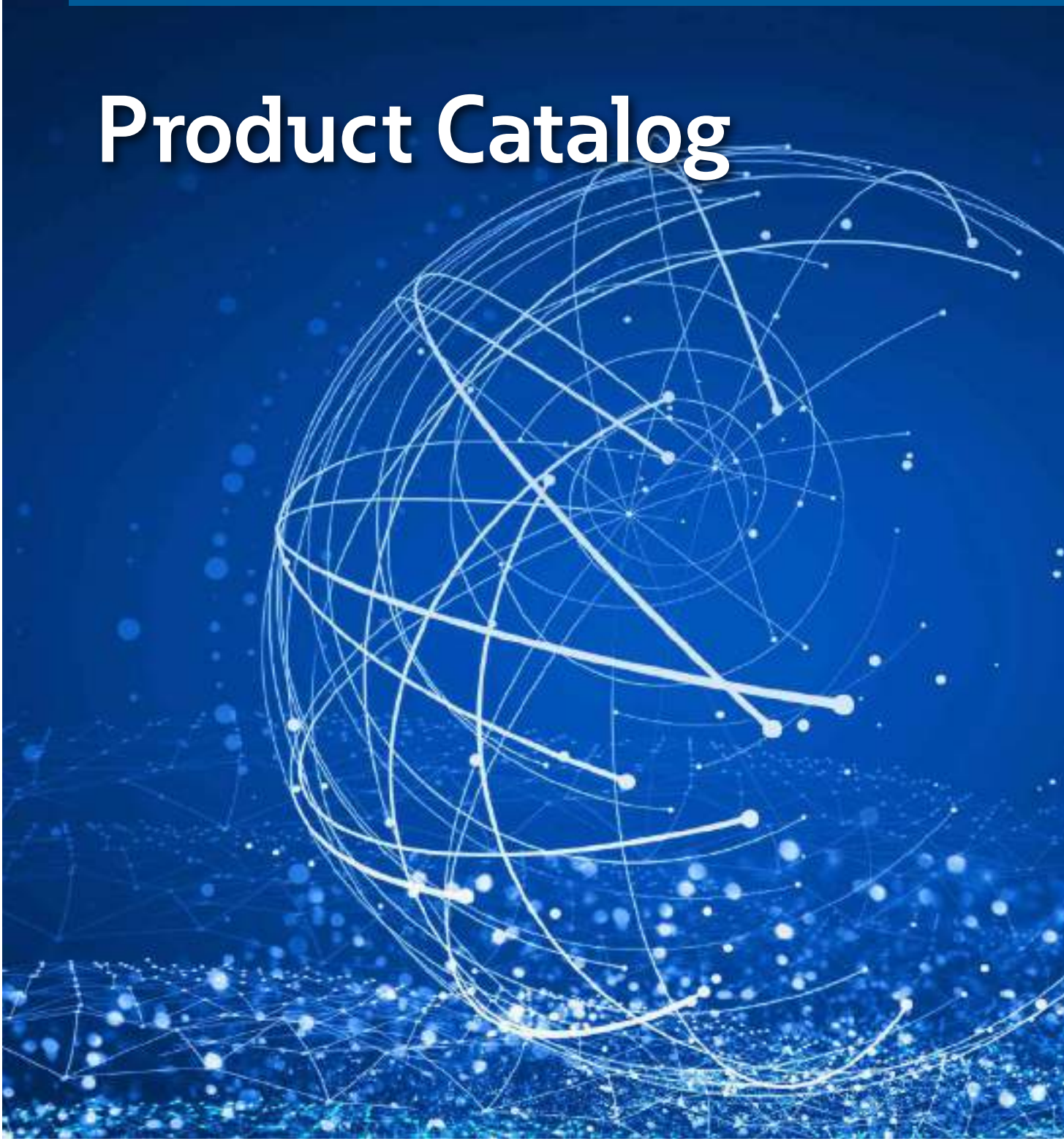
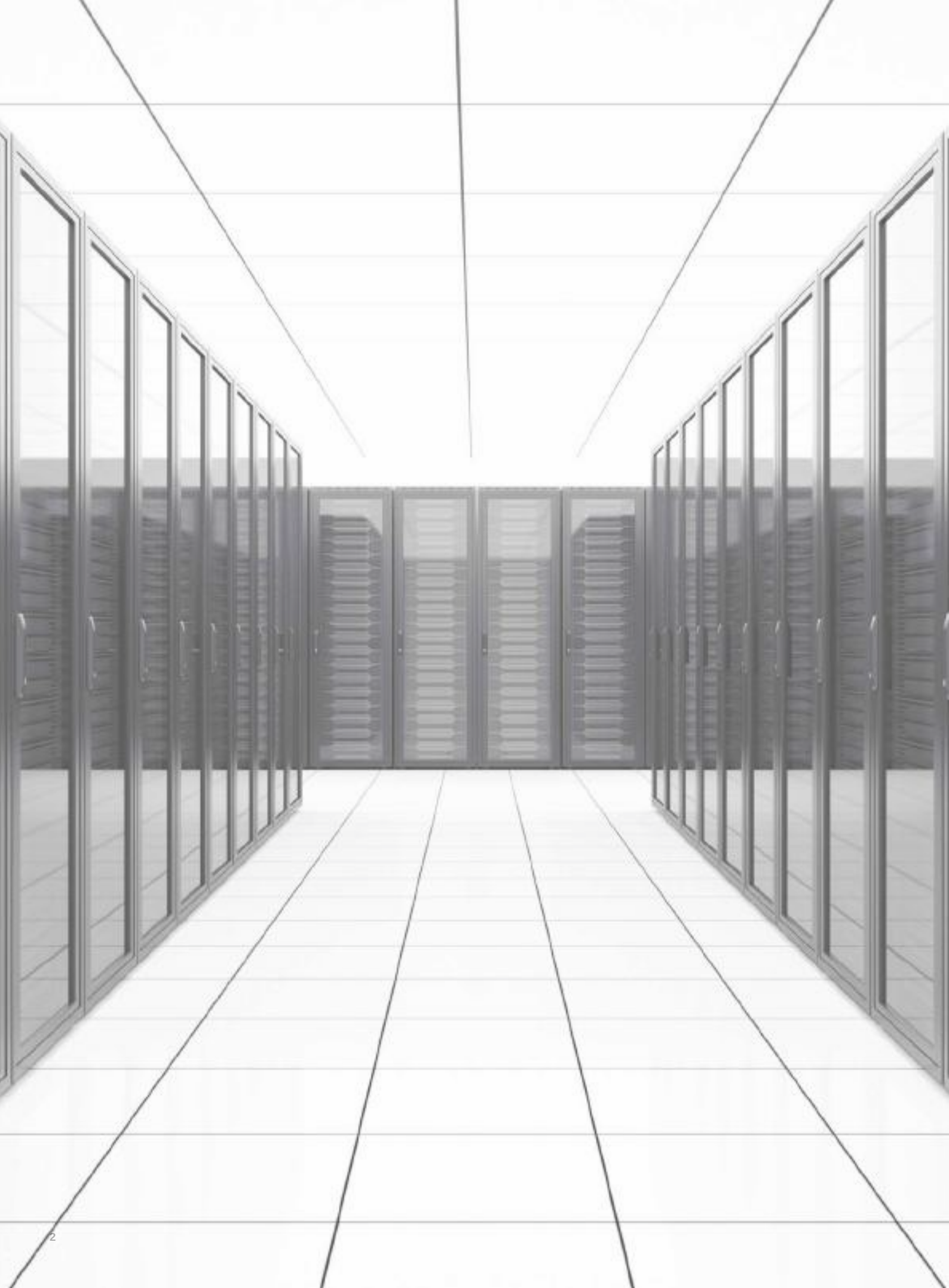
Product Catalog



PHOENIXTEC™



PHOENIXTEC™ Product Catalog

CONTENTS

WHY Phoenixtec

- **1978 –** Phoenixtec established
- **1989 –** Started UPS export business
- **2006 –** Delivered more than 4 million UPS worldwide
- **2007 –** Lian Zheng factory established
- **2008 –** Acquired by Eaton
- **2015 –** Philippine factory established
- **2020 –** Shenzhen office established
- **2021 –** Launched First IoT OEM UPS compliance with cyber security
- **2021 –** Launched 3PH APUS II UPS and Gripower Pro UPS
- **2022 –** Xi'an R&D center established
- **2023 –** Launched Basic 1-10K, MDC and APUS III UPS
- **2024 –** Launched Unity Lithium and Unity LV ISO

High-quality products supported by rigorous quality control system

Well-equipped and large manufactory facilities to meet worldwide growing demand

ISO
ISO14001, ISO9001 certified

40
Years ODM/OEM Experience

Full range of power quality products including UPS, AC Inverter, Battery Charger

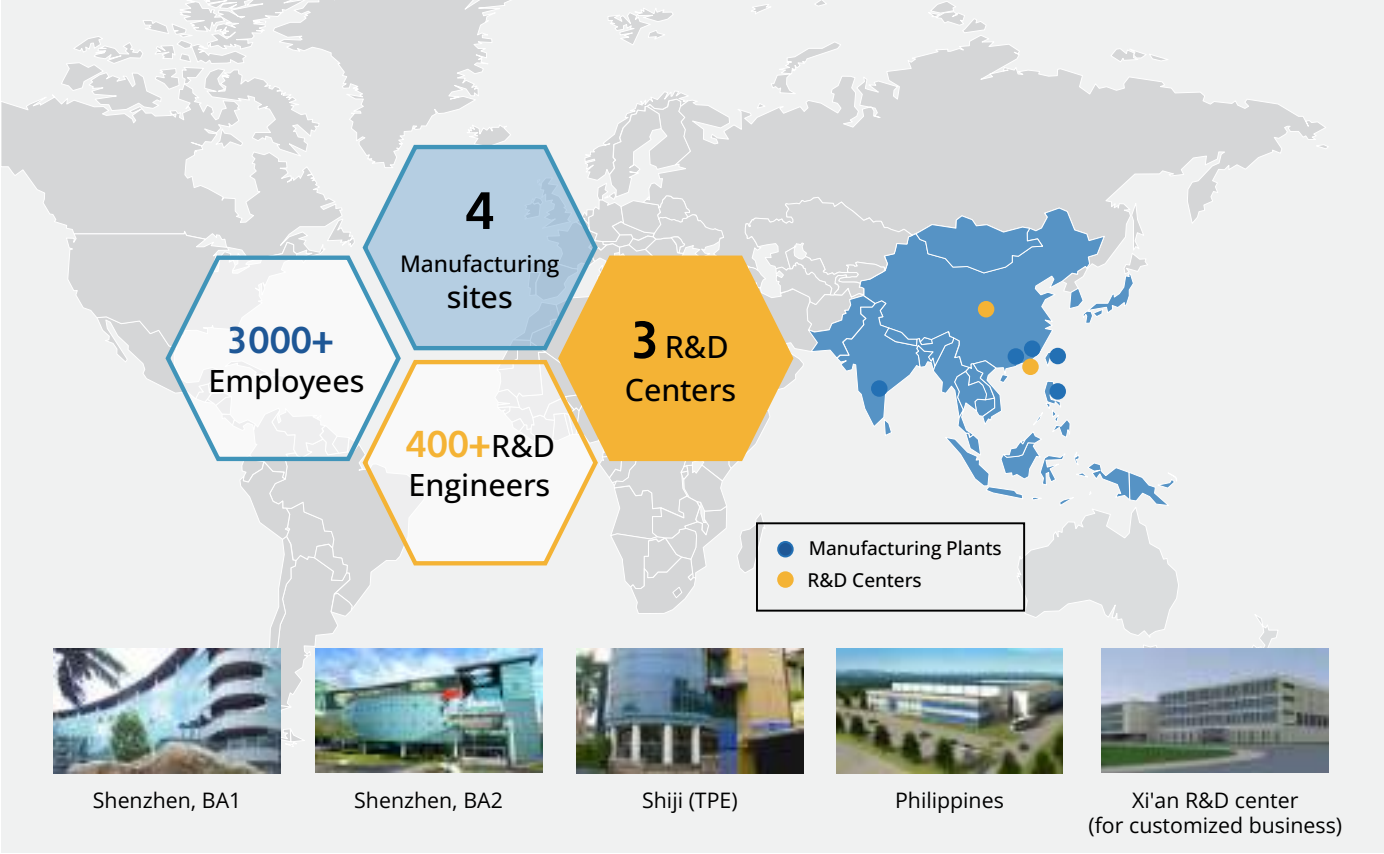
Prodcut customization to meet various applications

With more than 40 years of experiences in the industry, Phoenixtec's power products have served all over the world as key components in power systems which required UPS, and Phoenixtec has won its reputation as a trustful and reliable partner for its customers.

Standards and certifications

Americas | Europe | Middle East | Africa | Asia | Australia

APAC manufacturing & R&D footprint



Shenzhen, BA1

Shenzhen, BA2

Shiji (TPE)

Philippines

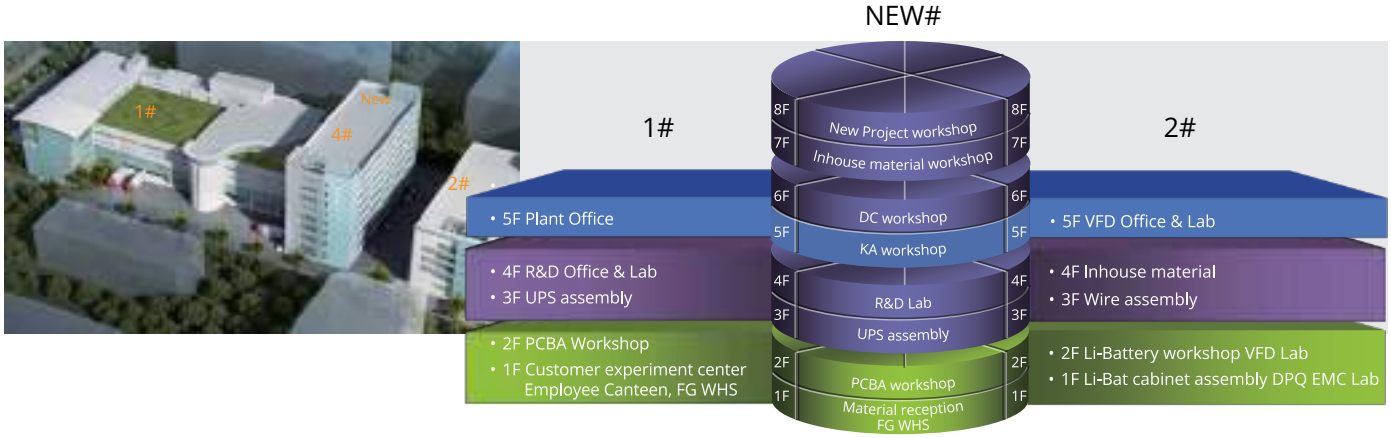
Xi'an R&D center
(for customized business)

Manufacturing capabilities

1PH/3PH UPS manufacturing:

- Over 8 million UPS made per year
- 20 State-of-the-Art Automatic PCBA Production Lines
- Certified to EICC, ISO9001/14001 & TL9000

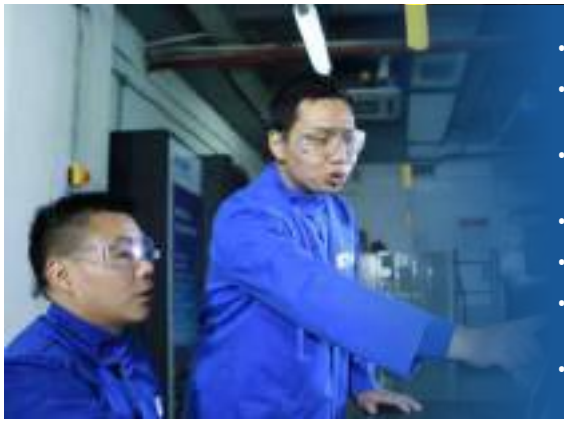
Building layout (Shenzhen, BA2)



Manufacturing processes

R&D capabilities

Global technology platform, regional solutions



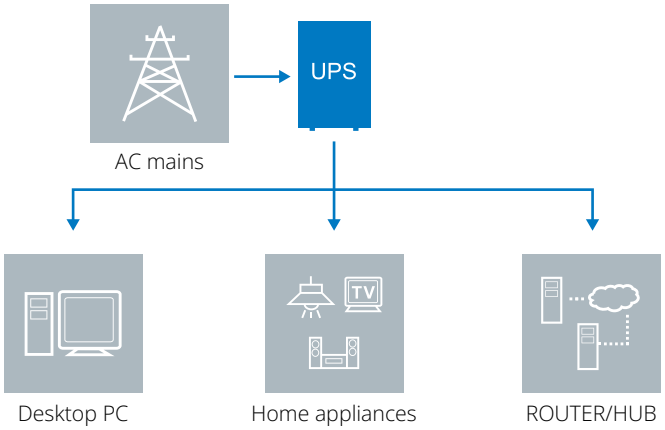
- 400 + RND engineers
- Complete design services for UPS, Energy storage system, high efficiency rectifiers, ePDU & Micro Data Center products
- Expert Design Services in power electronic, power magnetic, embed firmware and control, thermal modeling, mechanical simulation.
- More than 40 Years of ODM Design Expertise
- Full reliability testing and compliance to 32 global safety agency standards
- Ensure Product Reliability through Six-Sigma Design Tools (DFSS) & NPD (PROLaunch) Design Process
- Designed to Local Standards & Customer Needs

AURORA III 650-2200VA

Key features

- Entry-level backup solution with excellent performance
- Build-in voltage regulator for reliable power quality
- Super fast charger shortens the charging time to 2-4 hours
- Tiny-Load Sensing technology prevents the battery from deep discharge problem while connecting to tiny loads
- HID USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS and Linux
- Supports loads with APFC (For 2 Bat models)
- Optional Surge protection for LAN/Phone/Modern line (Up to 1000M for 2 Bat model, 100M for 1Bat model)
- CE compliant

Typical application



Rear panel

IEC 650-850VA

Schuko 650-850VA

IEC 1.2KVA

IEC 1.5-2.2KVA

Schuko 1.2KVA

Schuko 1.5-2.2KVA

Product specification

MODEL		AURORA 650	AURORA 850	AURORA 1050	AURORA 1200	AURORA 1500	AURORA 2200
CAPACITY		650VA/360W	850VA/480W	1050VA/600W	1200VA/600W	1500VA/900W	2200VA/1200W
INPUT	Input Voltage Range	220V: 162-268VAC / 230V: 170-280VAC / 240V: 177-290VAC					
	Frequency Range	45~55Hz/5 5~65Hz					
	Input connection	IEC-C14/10A or fixed power cord with Schuko plug 1.2m					
OUTPUT	Output Power Factor	0.55	0.56	0.57	0.5	0.6	0.55
	Nominal Output Voltage	220/230/240 VAC					
	Voltage Regulation (Line Mode)	±15%					
	Voltage Regulation (Battery Mode)	±10%					
	Frequency Range (Battery Mode)	50/60Hz ± 1Hz					
	Output Waveform	Modified sine wave					
	Output socket	(3) IEC 10A or (2) Schuko			(6) IEC 10A or (4) Schuko		
EFFICIENCY	Line Mode	95%					
	AVR Mode	88%					
	Battery Mode	60%					
BATTERY	Battery Type	12V/7Ah	12V/9Ah	12V/9Ah	12V/7Ah	12V/7Ah	12V/9Ah
	Number of Internal Battery	1	1	1	2	2	2
	Rated Battery Voltage	12VDC	12VDC	12VDC	24VDC	24VDC	24VDC
	Backup Time (@ Typical PC load)	16 min	20 min	22 min	40 min	40 min	50 min
	Recharge Time (to 90%)	2-4 hours					
TRANSFER TIME	Battery Mode Line Mode	3-8 ms typical					
DISPLAY		LED/LCD					
AUDIBLE ALARM		YES					
DIMENSION	WxHxD	100 x 143 x 300 mm			139 X 195 x 364 mm		
NET WEIGHT		4.2kg	4.9kg	5.2kg	7.9kg	8.8kg	9.1kg
ENVIRONMENT	Operating Temperature	0~40°C					
	Noise Level	<40dB				<45dB	<45dB
INTERFACE	USB	Yes					
	External Slot	No					
	TVSS protection	Option RJ45					

* 1050VA only for LED Model.

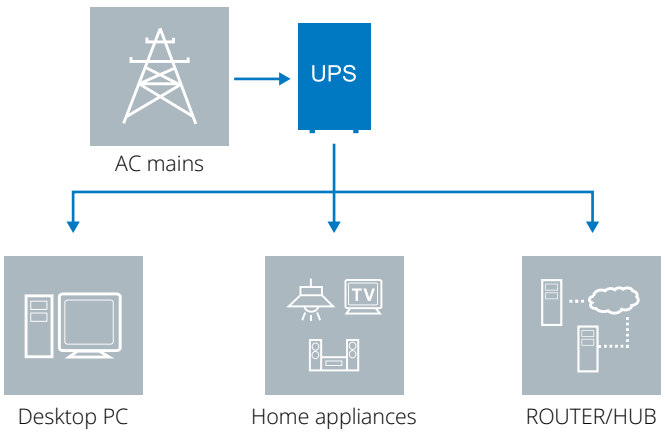
* Due to continuous product improvement programs, specifications are subject to change without notice.

AURORA Pro 500-2200VA

Key features

- Cost effective backup solution with excellent performance
- Build-in voltage regulator for reliable power quality
- 1 min backup capability with full load
- Super fast charger shortens the charging time to 2-4 hours
- Supports loads with APFC (Active Power Factor Correction)
- Tiny-Load Sensing technology prevents the battery from deep discharge problem while connecting to tiny load
- HID-UPS-Battery-supported USB interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS and Linux
- USB charger for tablet and smartphone backup power
- Optional RS232 port for flexible application
- Easy-to-understand graphic LCD display
- CE compliant

Typical application



Rear panel (IEC/SCHUKO)

IEC outlet

AURORA Pro 500/650/850 | AURORA Pro 1200 | AURORA Pro 1600/2200

SCHUKO outlet

AURORA Pro 500/650/850 | AURORA Pro 1200 | AURORA Pro 1600/2200

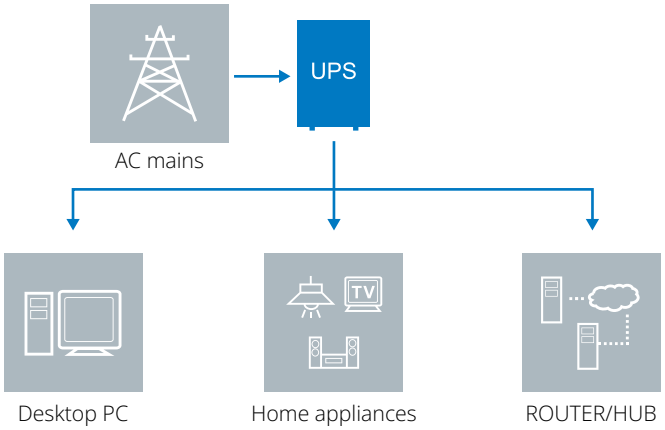
Product specification

Model		Aurora PRO 500	Aurora PRO 650	Aurora PRO 850	Aurora PRO 1200	Aurora PRO 1600	Aurora PRO 2200
Capacity		500VA / 300W	650VA / 360W	850VA / 480W	1200VA / 700W	1600VA / 960W	2200VA / 1200W
Input	Input Voltage Range	162-290 VAC					
	Frequency Range	45~55Hz/55~65Hz					
	Input Wiring	Single phase with ground					
Output	Output Power Factor	0.6	0.55	0.56	0.55	0.6	0.55
	Nominal Output Voltage	220/230/240 VAC					
	Voltage Regulation (Line Mode)	±15%					
	Voltage Regulation (Battery Mode)	±10%					
	Frequency Range (Battery Mode)	50/60Hz ± 1 Hz					
	Output Waveform	Modified sine wave					
	Parallel Operation	N/A					
Efficiency	Line Mode	95%					
Battery	Battery Type	12V/7Ah	12V/7Ah	12V/9Ah	12V/7Ah	12V/9Ah	12V/9Ah
	Number of Internal Battery	1	1	1	2	2	2
	Rated Battery Voltage	12VDC	12VDC	12VDC	24VDC	24VDC	24VDC
	Backup Time (@ full load)	1 min	1 min	1 min	1 min	1 min	1 min
	Backup Time (@ Typical PC load)	18 min	18 min	22 min	45 min	50 min	50 min
	Recharge Time (to 90%)	2-4 hours					
	Charging Current	1A					
USB charger	Max Charging Current	2A					
Transfer Time	Battery Mode ↔ LineMode	2-6 ms			4-8 ms		
Display		LCD					
Audible Alarm		Yes					
Dimension	W x H x D	100 x 143 x 290 mm			139 x 195 x 364 mm		
Net Weight		4.4 kg	4.4 kg	5.2 kg	10.4 kg	10.7 kg	11.0 kg
Environment	Operating Temperature	0~40°C					
	Noise Level	<40dB				<45dB	
Interface	USB	Yes					
	RS232	Optional					
	External Slot	No					
	TVSS protection	RJ11 Jack			RJ45 Jack		

* Due to continuous product improvement programs, specifications are subject to change without notice.

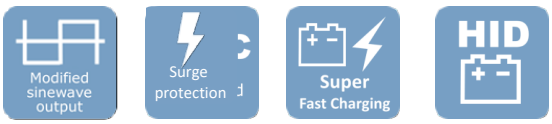
P-Box 650-1050VA

Typical application

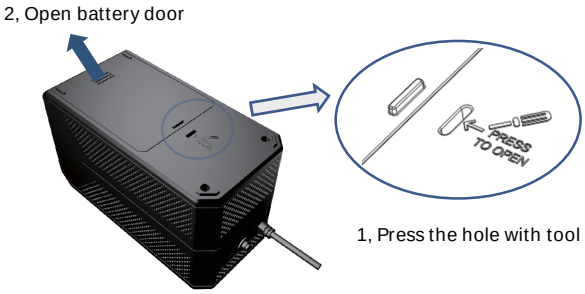


Key features

- Build-in voltage regulator for reliable power quality
- Super fast charger shortens the charging time to 2-4 hours
- HID USB* interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS and Linux (optional)
- Multi outlet up to 8 pcs
- Support Surge protection
- Separated battery room and Support Battery easy replacement
- CE compliant



Battery easy replacement



Note: Follow manual for details and safety requirement.

8 outlets with 360J surge protection

- 4 surge protection only
- 4 surge protection and power backup

Product specification

MODEL		P-Box 650	P-Box 850	P-Box 1050
CAPACITY		650VA/360W	850VA/480W	1050VA/600W
INPUT	Input Voltage Range	220V: 162-268 VAC; 230V: 170-280 VAC; 240V: 177-290 VAC		
	Frequency Range	45~55Hz/55~65Hz		
	Input connection	Fixed power cord with AU/Schuko/US plug 1.2m		
OUTPUT	Output Power Factor	0.55	0.56	0.57
	Nominal Output Voltage	220/230/240 VAC		
	Voltage Regulation (Line Mode)	±15%		
	Voltage Regulation (Battery Mode)	±10%		
	Frequency Range (Battery Mode)	50/60Hz ± 1Hz		
	Output Waveform	Modified sine wave		
	Output socket	4 backup + 4 Surge protection only(Schuko/IEC/AU); 6 backup + 2 Surge protection only (Universal)		
EFFICIENCY	Line Mode	95%		
	AVR Mode	88%		
	Battery Mode	60%		
BATTERY	Battery Type	12V/7Ah	12V/9Ah	12V/9Ah
	Number of Internal Battery	1	1	1
	Rated Battery Voltage	12VDC	12VDC	12VDC
	Backup Time (@ Typical PC load)	16 min	20 min	22 min
	Recharge Time (to 90%)	2-4 hours		
TRANSFER TIME	Battery Mode Line Mode	3-8 ms typical		
DISPLAY		LED		
AUDIBLE ALARM		Yes		
DIMENSION	WxHxD	125 x 150 x 254 mm		
NET WEIGHT		4.6 kg	5.4 kg	5.7 kg
ENVIRONMENT	Operating Temperature	0~40°C		
	Noise Level	<30dB		
INTERFACE	USB	Yes-HID		
	External Slot	No		
	TVSS protection	No		

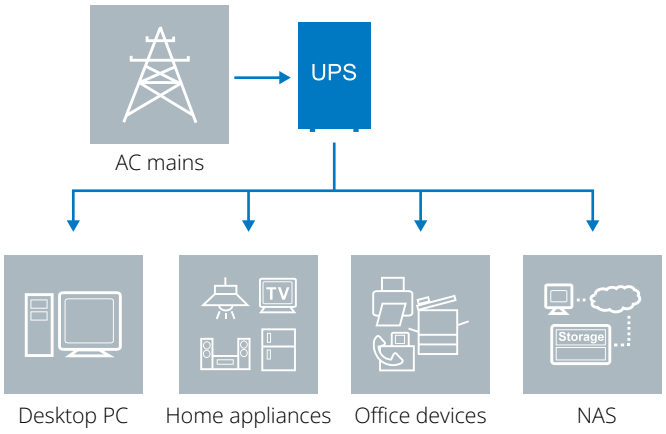
* Due to continuous product improvement programs, specifications are subject to change without notice.

Spring MT Series 500/750/1000/1500

Key features

- High performance supported by sinewave output and builtin voltage regulator
- Compact foot print fits easily into small spaces such as kiosks, cash machines and ticket machines
- HID-UPS-Battery-supported USB* interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS and Linux
- High conversion efficiency (>95%) results in energy saving
- LCD graphic display gives comprehensive information at a glance
- Easy battery replacement

Typical application



Product specification

MODEL		Spring MT 500	Spring MT 750	Spring MT 1000	Spring MT 1500
CAPACITY		500VA/350W	750VA/500W	1000VA/700W	1500VA/900W
INPUT	Input Voltage Range	176-288VAC			
	Frequency Range	45-55 Hz / 55-65 Hz			
	Input Wiring	Single phase with ground			
OUTPUT	Output Power Factor	0.7	0.6	0.7	0.6
	Nominal Output Voltage	220/230/240VAC			
	Voltage Regulation (Line Mode)	-10% ~ +6%			
	Voltage Regulation (Battery Mode)	-10% ~ +6%			
	Frequency Range (Battery Mode)	50/60Hz ± 0.1Hz			
	Output Waveform	Pure sine wave			
	Parallel Operation	N/A			
EFFICIENCY	Line Mode	> 94%			
	AVR Mode	> 90%			
	Battery Mode	> 70%			
BATTERY	Battery Type	12V/7Ah	12V/9Ah	12V/7Ah	12V/9Ah
	Number of Internal Battery	1	1	2	2
	Rated Battery Voltage	12VDC	12VDC	24VDC	24VDC
	Backup Time (@ Typical PC load)	17 min	20 min	35 min	40 min
	Recharge Time (to 90%)	3 hours			
TRANSFER TIME	Battery Mode <--->Line Mode	<10ms			
DISPLAY		LCD			
AUDIBLE ALARM		Yes			
DIMENSION	W x H x D	150x209X240 mm		150x209x340 mm	
NET WEIGHT		6.4 kg	6.8 kg	10.8 kg	11.5 kg
ENVIRONMENT	Operating Temperature	0~40°C			
	Noise Level	<40dBA @ 1 meter		<45 dBA@1 meter	
INTERFACE	USB	Yes			

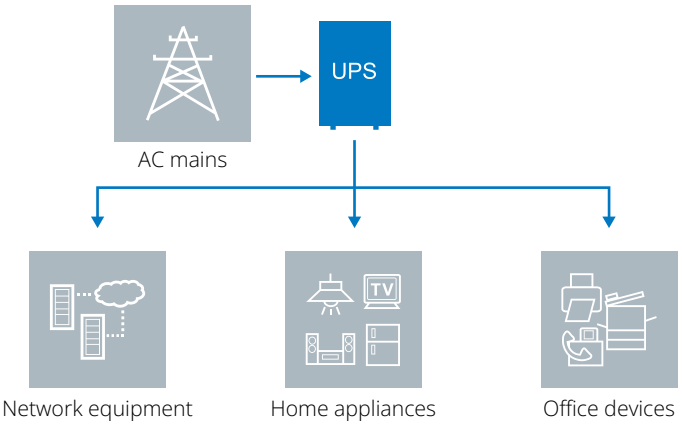
* Due to continuous product improvement programs, specifications are subject to change without notice.

Spring RT Series 1K/1.5K

Key features

- High output power factor (0.9)
- Built-in voltage regulator stables unstable AC input power
- Intelligent communication slot enables remote monitoring
- HID-UPS-Battery-supported USB* interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS and Linux
- Rack/tower dual set-up with rotatable LCD panel
- Optional EBM (Extended Battery Module) available for battery expansion

Typical application



Product specification

MODEL		Spring RT 1K	Spring RT 1KS	Spring RT 1KE	Spring RT 1.5K	Spring RT 1.5KS
CAPACITY		1000VA/900W			1500VA/1350W	
INPUT	Input Voltage Range	154~288VAC				
	Frequency Range	45-55Hz / 55-65 Hz				
	Input Wiring	Single phase with ground				
	Current Distortion (THDi)	10%				
OUTPUT	Output Power Factor	0.9				
	Nominal Output Voltage	220/230/240VAC				
	Voltage Regulation (Line Mode)	-10% ~ +6%				
	Voltage Regulation (Battery Mode)	± 5 %				
	Frequency Range (Battery Mode)	50/60 Hz ± 0.1 Hz				
	Voltage Distortion (THDv)	< 3% @ linear load, < 6% @ non-linear load		< 10% @ linear load	< 3% @ linear load, < 6% @ non-linear load	
	Output Waveform	Pure sine wave				
	Parallel Operation	N/A				
EFFICIENCY	Line Mode	> 97%				
	AVR Mode	Boost mode: 92%, Buck mode: 95%				
	Battery Mode	> 82%		> 80%	> 82%	
BATTERY	Battery Type	12V/7Ah	N/A	12V/9Ah	12V/9Ah	N/A
	Number of Internal Battery	3	N/A	2	3	N/A
	Rated Battery Voltage	36VDC		24VDC	36VDC	
	Backup Time (@ full load)	4.5 min	N/A	3 min	3 min	N/A
	Recharge Time (to 90%)	3 hours	N/A	8 hours	4 hours	N/A
	Charging Current	1.5A	7A	1.1A	1.5A	7A
TRANSFER TIME	Battery Mode <--->Line Mode	2-6 ms				
DISPLAY		LCD				
AUDIBLE ALARM		Yes				
DIMENSION	W x H x D	438 x 86.5 x 435 mm				
NET WEIGHT		16 kg	10 kg	13 kg	17.9 kg	10kg
ENVIRONMENT	Operating Temperature	0~40°C				
	Noise Level	<45dB				
INTERFACE	RS232/USB	Yes				
	External Slot	Yes		N/A	Yes	
	Dry Contact	Yes		N/A	Yes	

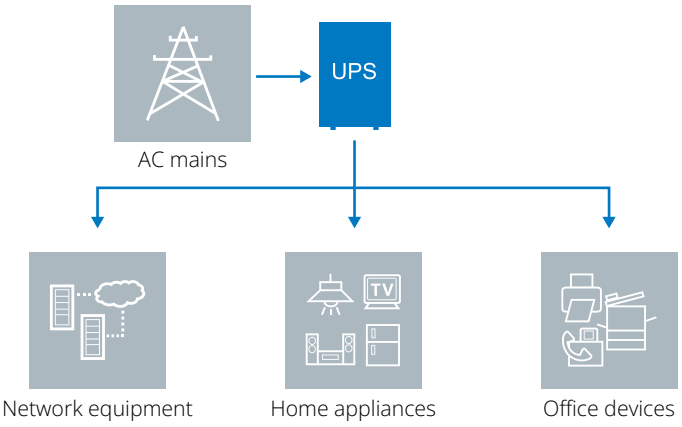
* Due to continuous product improvement programs, specifications are subject to change without notice.

Spring RT Series 2K/3K

Key features

- High output power factor (0.9)
- Built-in voltage regulator stables unstable AC input power
- Intelligent communication slot enables remote monitoring
- HID-UPS-Battery-supported USB* interface enables integration with built-in power management and auto shutdown features of Windows and Mac OS and Linux
- Rack/tower dual set-up with rotatable LCD panel
- Optional EBM (Extended Battery Module) available for battery expansion

Typical application



Product specification

MODEL		Spring RT 2K	Spring RT 2KS	Spring RT 2KE	Spring RT 3K	Spring RT 3KS
CAPACITY		2000VA/1800W			3000VA/2700W	
INPUT	Input Voltage Range	154~288VAC				
	Frequency Range	45-55Hz / 55-65 Hz				
	Input Wiring	Single phase with ground				
	Current Distortion (THDi)	10%				
OUTPUT	Output Power Factor	0.9				
	Nominal Output Voltage	220/230/240VAC				
	Voltage Regulation (Line Mode)	-10% ~ +6%				
	Voltage Regulation (Battery Mode)	± 5 %				
	Frequency Range (Battery Mode)	50/60 Hz ± 0.1 Hz				
	Voltage Distortion (THDv)	< 3% @ linear load, < 6% @ non-linear load				
	Output Waveform	Pure sine wave				
	Parallel Operation	N/A				
EFFICIENCY	Line Mode	97%				
	AVR Mode	Boost mode: 92%, Buck mode: 95%				
	Battery Mode	80%				
BATTERY	Battery Type	12V/7Ah	N/A	12V/9Ah	12V/9Ah	N/A
	Number of Internal Battery	6	N/A	4	6	N/A
	Rated Battery Voltage	72VDC		48VDC	72VDC	
	Backup Time (@ full load)	4.5 min	N/A	3 min	3 min	N/A
	Recharge Time (to 90%)	3 hours	N/A	4hours	4 hours	N/A
	Charging Current	1.5A	7A	1.5A	1.5A	7A
TRANSFER TIME	Battery Mode <--->Line Mode	2-6 ms				
DISPLAY		LCD				
AUDIBLE ALARM		Yes				
DIMENSION	W x H x D	438 X 86.5 x 604 mm		438 X 86.5 x 436 mm	438 X 86.5 x 604 mm	
NET WEIGHT		28 kg	16 kg	21 kg	31 kg	16 kg
ENVIRONMENT	Operating Temperature	0~40°C				
	Noise Level	<45dB				
INTERFACE	RS232/USB	Yes				
	External Slot	Yes				
	Dry Contact	Yes				

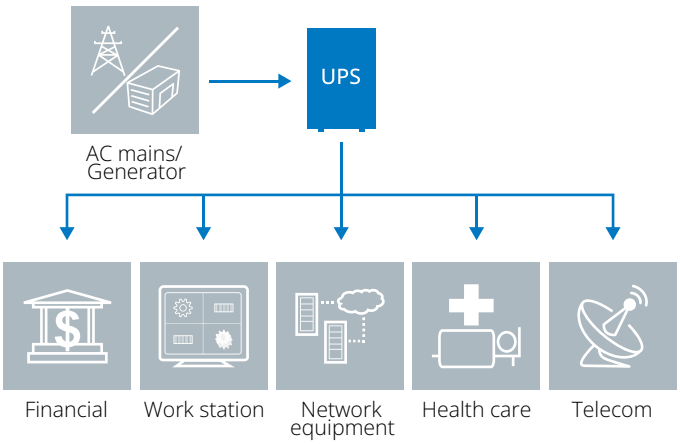
* Due to continuous product improvement programs, specifications are subject to change without notice.

Innova Basic Tower HV 1-3K

Key features

- True double-conversion design with high adaptability to harsh mains conditions
- 1K/1KS/2K/2KS/3K/3KS various offer.
- Various battery configuration:1K 24V/36V, 2K 48VDC/72VDC, 3K 72VDC
- 0.9 output power factor with up to 12.5% more power offer than traditional 0.8pf.
- Optional EBM for flexible backup time configuration.
- Compact size requiring small installation space
- Programmable LCD display for quick UPS parameters configuration
- Various communication for easy management: RS232/USB, EPO, mini slot
- Certificates CE

Typical application



Rear panel

Innova Tower 1K(S)-HV

Innova Tower 2K(S)-HV

Innova Tower 3K(S)-HV

1. RS232
2. EPO/ROO
3. USB
4. Input circuit breaker
5. AC input
6. Intelligent card slot
7. External battery connector
8. Output terminal
9. Output terminal block

Product specification

MODEL	Product Line	Innova Basic Tower HV 1-3KVA UPS					
		1K	1KS	2K	2KS	3K	3KS
CAPACITY	VA/W	1000VA/900W		2000VA/1800W		3000VA/2700W	
INPUT	Rated Voltage	208V/220/230/240VAC, 230V default					
	Input Voltage Range	100 ~ 300 VAC					
	Frequency Range	45~55 Hz/54~66 Hz					
	Input Wiring	Single Phase with Ground					
OUTPUT	Output Power Factor	0.9					
	Nominal Output Voltage	208V/220/230/240VAC, 230V default					
	Voltage Regulation	±1%					
	Frequency Range (Battery Mode)	50/60Hz ±0.05Hz					
	Over Load	100%~105% continuous. 60Sec.@105%~130% Rated Load					
	Voltage Distortion (THDv)	<2% @ linear load					
	Output Waveform	Pure Sine Wave					
	Parallel Operation	N/A					
EFFICIENCY	Inverter Mode	89%		90%		91%	
BATTERY	Battery Type	VRLA	VRLA	VRLA	VRLA	VRLA	VRLA
	Battery	12V / 9Ah	N/A	12V / 9Ah	N/A	12V / 9Ah	N/A
	Number of Internal Battery	2	N/A	4	N/A	6	N/A
	Rated Battery Voltage	24VDC	36VDC	48VDC	72VDC	72VDC	72VDC
	Charging Current	1A	4A	1A	4A	1A	4A
	Recharging time (90%)	5 hours	N/A	5 hours	N/A	5 hours	N/A
TRANSFER TIME	Battery Mode <-> Inverter Mode	0ms					
	Inverter Mode <-> Bypass Mode	<4ms					
	ECO Mode <-> Battery Mode	<10ms					
DISPLAY		Segment LCD					
AUDIBLE ALARM		Yes					
DIMENSION	W x H x D (mm)	144×224×325		190×323×368			
ENVIRONMENT	Operating Temperature	0~40 °C					
	Regulation	CE					
	Noise Level	<50dB (ISO 7779&At front 1m distance, without buzzer)					
INTERFACE	RS232/USB	Yes					
	External Slot	Yes, for optional NMC Card/CMC Modbus Card/AS400 Card					
	Emergency Power Off	Yes					

* Due to continuous product improvement programs, specifications are subject to change without notice.

Innova Basic Tower 1-3KVA ISO

Key features

- Zero Transfer time

  True Double Conversion Online UPS, Provide most comprehensive protection to mission critical equipment from wide range power quality issues.

- DSP Digital Control Based

  Advance DSP base digital control bring high performance of high input Power factor, low distortion , supply the load with perfect sine wave AC power supply.

- Galvanic Isolation

  Galvanic Isolation between in AC input and output in all operating mode, greatly reduce common mode noise interference, make possible absolutely ZERO volt between output Neutral and Protective Earth.

- Ultra Wide Input Mains range

  Strong compatible with ultra with electric environment, stay well with ultra wide range mains of 100V~300V, 40~70Hz ,dramatically reduce battery discharge , prolong battery life.

- Genset Compatible

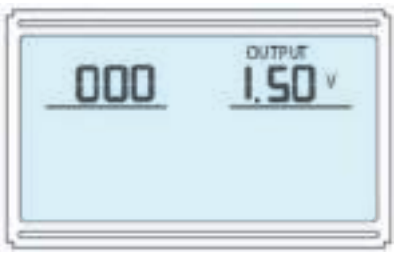
  Capable of work with wide range of Genset, isolate fluctuation and noise from Genset , provide stable and clean power supply to the user equipment.

- High Input power factor

  Thanks to digital controlled PFC Technology, >0.98 input power factor, effectively avoid power pollution , save energy expense for customer.

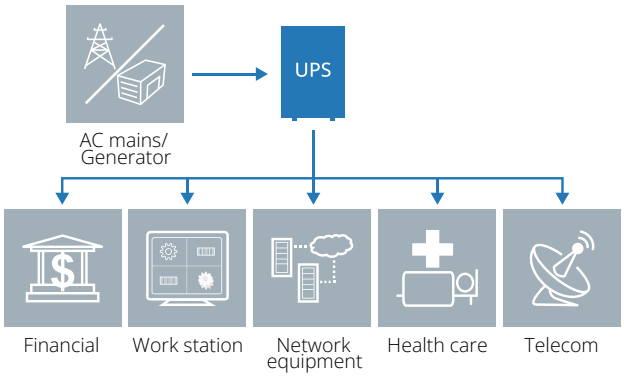
- Voltage Detection between Neutral & Grounding

  Real time monitor the N-G voltage and an alarm will be issued immediately If it is greater than 10V. Ensure load stability.



Output N-G voltage display

Typical application



UPS outlook

1K, 1.5K - ISO Front Panel and Rear Panel

2K-ISO Front Panel and Rear Panel

3K-ISO Front Panel and Rear Panel

Product specification

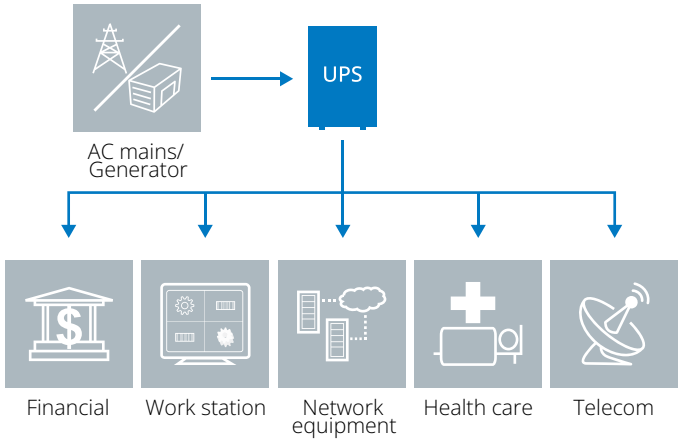
MODEL		Innova Basic Tower 1-3KVA ISO			
Capacity	VA/W	1kVA/900W	1.5kVA/1.35kW	2KVA/1.8kW	3KVA/2.7KW
Topology		Double Conversion Online UPS with Galvanic Isolation Transformer			
AC Mains Input	Wiring	1 phase 3wires (L / N+PE)			
	Rated Voltage	208/220/230/240Vac			
	Rated Frequency	50Hz/60HZ			
	Voltage Range	100~300VAC			
	Frequency Range	(40~70)±0.5Hz			
	Input Power Factor	>0.98			
	Bypass voltage Range	184~265Vac default; 120-275V acadjustable			
AC Output	Wiring	1 phase 3wires (L / N+PE)			
	Output Voltage	High voltage 208/220/230/240Vac			
	Output Frequency	50/60±4Hz(Sync Mode) / 50/60Hz±0.1%(Free Run)			
	Voltage Regulation	+/-1%			
	Waveform	Pure Sine Wave			
	Distortion (THDV%)	<2%(Linear Load)			
		<8%(IEC62040-3 Reference nonlinear load)			
	Output Power Factor	0.9			
	Over load capability	105%<Load≤130%, 60s 130%<Load≤150%, 10s Load>150%±5%, 200ms then transfer to Bypass and Alarm			
	Transfer Time	Line Mode - Battery Mode 0ms			
EFFICIENCY	AC/AC Mode	85%	85%	86%	87%
	DC/AC Mode	85%	85%	86%	87%
Battery & Charge	Rated Battery Voltage ①	36VDC Internal Battery	48VDC Internal Battery	72VDC Internal Battery	72VDC Internal Battery
	Battery Capacity	12V/9AH*3pcs	12V/7AH*4pcs	12V/9AH*6pcs	12V/9AH*6pcs
	Backup Time	8min@Full load 20min@50% load	8min @Full load 17min @ 50% load	9min@Full load 22min@50% load	4min@Full load 10min @ 50% load
	Charging Current	Standard Model with Internal Battery:1A			
HMI	LCD DISPLAY	Input Mains Voltage, Frequency, Load level, Operation Mode, Health Status			
	Standards COMMUNICATION	1. RS232 PORT 2. USB PORT 3. Intelligent Slot 4.Epo Port 5.Roo Port			
	Optional Extension Card	MODBUS Card, USB Card, Relay type Dry Contact Card (Needs assembly according to order request before shipping)			
Operating Environment Endurance	Temperature range	0~50°C,Nominal power & continuous operating mode, Linear derating above 40oC, 3%/oC, i.e. Output capacity derating to 70% @50°C			
	Relative Humidity	0-95% (Non-condensing)			
	Acoustics Noise	<55dB @ 1 meters			
Physical Performance	Dimensions (W*H*D) mm	190*323*366	190*323*366	190*462*400	190*462*400
	Net Weight (KG)	23.1	26	38	42.1

Innova Basic Tower HV 6-10K

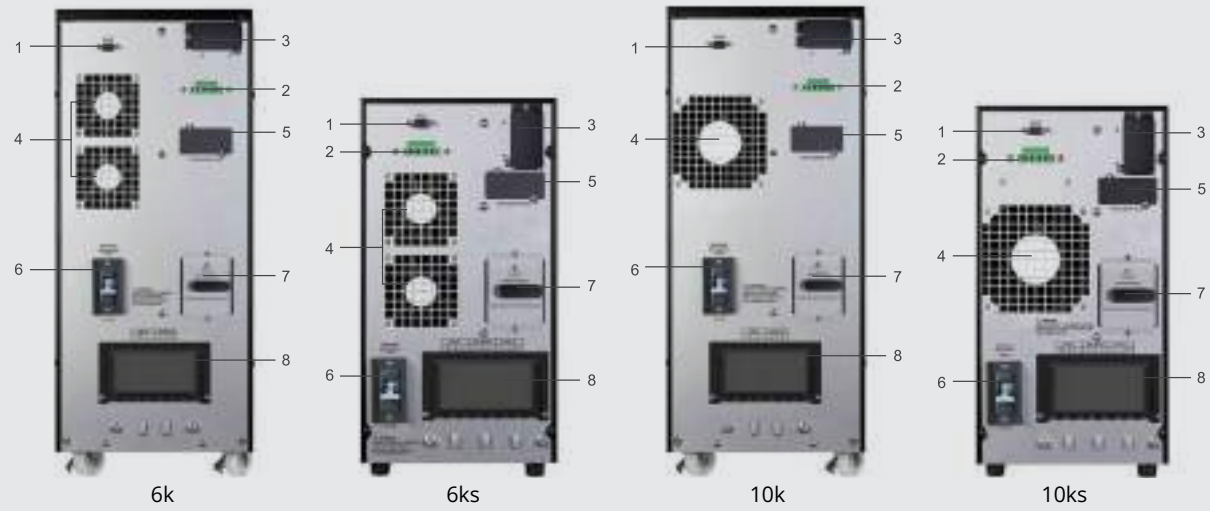
Key features

- True double-conversion design with high adaptability to harsh mains conditions
- 0.9 output Power factor
- High efficiency result in energy saving and supports energy-saving ECO mode
- Intelligent communication slot enables remote monitoring (Optional)
- Wide input voltage and frequency range, support CVCF
- Parallel available with Parallel card (maximum 3, optional)
- Compliance CE

Typical application



Rear panel



6k 6ks 10k 10ks

1. RS232 Port
2. EPO (optional)
3. Parallel Port (optional)
4. Fan
5. Communication Slot Box (optional)
6. Input Breaker
7. Maintenance Bypass Switch (optional)
8. Terminal Block Cover

Product specification

Model		Innova Basic Tower 6K	Innova Basic Tower 6KS	Innova Basic Tower 10K	Innova Basic Tower 10KS
Power rating	VA/Watt	6000VA/5400W	6000VA/5400W	10000VA/9000W	10000VA/9000W
Efficiency	Double coversion mode	94%			
	ECO mode	98%			
Input	Voltage range	185-275Vac @ 100% load, 120-185Vac derating to 50% load linear			
	Rated frequency	50/60Hz			
	Frequency range	40-70Hz (46-54/56-64Hz @ load>60%)			
Input connection	Wiring/socket	hardware terminal connection			
Output performance	Rated voltage	208/220/230/240VAC (derating to 90% load @208V)			
	Rated frequency	50/60Hz			
	Maximum PF	0.9			
	Voltage accuracy	+/-1%			
	THDv	<2%@linear load, <4%@non-linear load			
	Transfer time (line <-> battery)	0 ms			
	Crest Ratio	3:1 Max			
	Overload(line mode)	105%<load<=125% for 1 minutes;			
		125<load<=150% for 30 seconds;			
		load>150% for 0.5 seconds			
Output connection	Wiring/socket	Hardware terminal connection			
Battery	Voltage	180VDC	192VDC	192VDC	192VDC
	Inbuilt battery type	12Vx7Ah	NA	12Vx9Ah	NA
Charger	Charging current	1.2A	4A	1.2A	4A
	Recharging time (90%)	7H	NA	7H	NA
Other working mode	CVCF	Yes (derating to 60% load)			
	Parallel	3 Max (Optional card)			
HMI (human-machine interface)	Display	LCD			
	USB	No			
	RS232	Yes			
	EPO	Optional			
	Intelligent slot	Optional			
	Monitor software	WinPower			
Physical performance	Dimension(W*D*H)mm	248x500x616	212x500x420	248x500x616	212x500x420
	Net Weight(KG)	59	15	63	16
Environment	Operating temperature	0-40°C			
	Relative Humidity	20%-90%			
	Operating Altitude	0-3000m (derating 1% every 100m up @1000-3000m)			
	Acoustic Noise	<50dB			
Certification	Certification/standard	CE, IEC/EN62040			
EMI	Conduction/Radiation	C3			
EMS	ESD	IEC61000-4-2, Level 3			
	RS	IEC61000-4-3, Level 3			
	EFT	IEC61000-4-4, Level 4			
	Surge	IEC61000-4-5, Level 4			
	Maintenance bypass switch	Optional			
Accessory	Input power cable	NA			
	Output power cable	NA			
	EBM cable	NA	Yes	NA	Yes
	RS232 cable	Yes			
	Manual	Yes			
EBM (External battery module)	Battery	NA	192VDC,16*2*9Ah VRLA	NA	192VDC,16*2*9Ah VRLA
	Dimension(W*H*D) mm	NA	225*416*589	NA	225*416*589
	Weight(Kg)	NA	95.2	NA	95.2

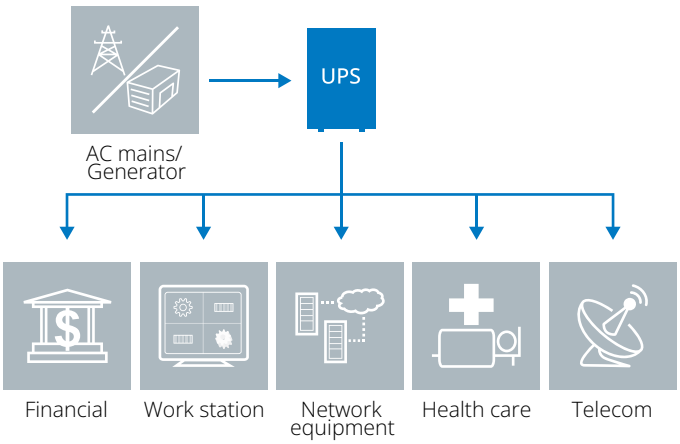
* Due to continuous product improvement programs, specifications are subject to change without notice.

Innova Basic Rack HV 1-10K

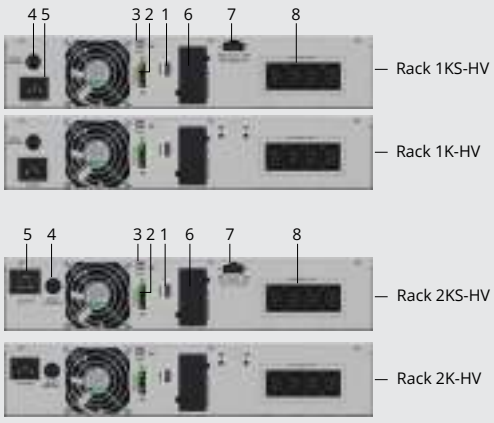
Key features

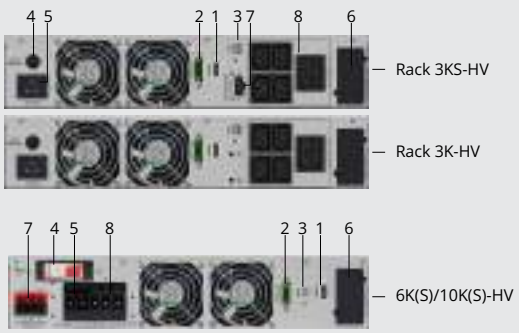
- True double-conversion design with high adaptability to harsh mains conditions
- 0.9 output power factor with up to 12.5% more power offer than traditional 0.8pf.
- 2U short depth compact size for space saving.
- Programmable LCD display for quick UPS parameters configuration
- Optional EBM (Extended Battery Module) available for battery expansion(2U for 1-3kVA UPS, 3U for 6-10kVA UPS)
- Various communication for easy management: RS232/USB, EPO, mini slot
- Certificates CE

Typical application



Rear panel





1. RS232
2. EPO/ROO
3. USB
4. Input circuit breaker
5. Ac input
6. Intelligent card slot
7. External battery connector
8. Ac output

Product specification

MODEL	Product Line	Innova Basic Rack HV 1-10KVA UPS							
		1K	1KS	2K	2KS	3K	3KS	6K	10K
CAPACITY	VA/W	1000VA/900W		2000VA/1800W		3000VA/2700W		6000VA/5400W	10000VA/900W
INPUT	Rated Voltage	208V/220/230/240VAC, 230V default							
	Input Voltage Range	100 ~ 300 VAC							
	Frequency Range	45~55 Hz/54~66 Hz							
	Input Wiring	Single Phase with Ground							
OUTPUT	Output Power Factor	0.9							
	Nominal Output Voltage	208V/220/230/240VAC, 230V default							
	Voltage Regulation	±1%							
	Frequency Range (Battery Mode)	50/60Hz ±0.05Hz							
	Over Load	100%~105% continuous. 60Sec.@105%~130% Rated Load						100%~105% continuous. 10min.@105%~125% Rated Load	
	Voltage Distortion (THDv)	<2% @ linear load							
	Output Waveform	Pure Sine Wave							
	Parallel Operation	N/A							
EFFICIENCY	Inverter Mode	89%		90%		91%		93%	
BATTERY	Battery Type	VRLA	VRLA	VRLA	VRLA	VRLA	VRLA	VRLA	VRLA
	Battery	12V / 9Ah	N/A	12V / 9Ah	N/A	12V / 9Ah	N/A	N/A	N/A
	Number of Internal Battery	2	N/A	4	N/A	6	N/A	N/A	N/A
	Rated Battery Voltage	24VDC	36VDC	48VDC	72VDC	72VDC	72VDC	192 VDC default, 240VDC adjustable	192 VDC default, 240VDC adjustable
	Charging Current	1A	4A	1A	4A	1A	4A	6K: 2A 6KS: 4A	10K: 2A 10KS: 4A
	Recharging time (90%)	5 hours	N/A	5 hours	N/A	5 hours	N/A	N/A	N/A
TRANSFER TIME	Battery Mode <-> Inverter Mode	0ms							
	Inverter Mode <-> Bypass Mode	<4ms							
	ECO Mode <-> Battery Mode	<10ms							
DISPLAY		Programmable LCD							
AUDIBLE ALARM		Yes							
DIMENSION	W x H x D (mm)	439x88×388				439x88×640	439x88×388	438*88*498	
ENVIRONMENT	Operating Temperature	0~40 °C							
	Regulation	CE							
	Noise Level	<50dB (ISO 7779&At front 1m distance, without buzzer)						<55dB (ISO 7779&At front 1m distance, without buzzer)	
INTERFACE	RS232/USB	Yes							
	External Slot	Yes, for optional NMC Card/CMC Modbus Card/AS400 Card							
	Emergency Power Off	Yes							

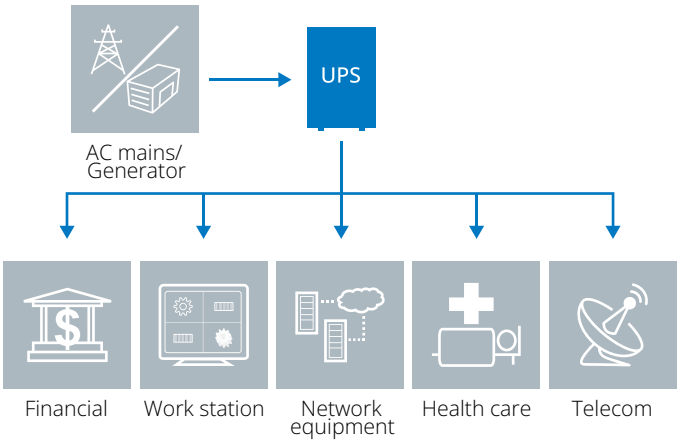
* Due to continuous product improvement programs, specifications are subject to change without notice.

Innova Basic Tower HV 10-20K

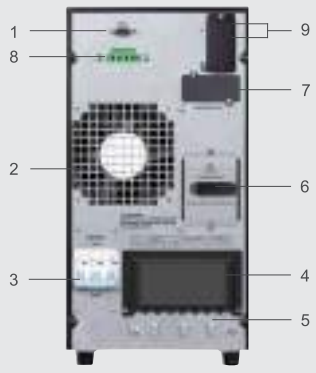
Key features

- True double-conversion design with high adaptability to harsh mains conditions
- 0.9 output Power factor
- High efficiency result in energy saving and supports energy-saving ECO mode
- Support both 1 phase and 3 phase input
- Intelligent communication slot enables remote monitoring (Optional)
- Parallel available with Parallel card (maximum 3, optional)
- Support battery adjustment from 192VDC to 240VDC (15/20KS)
- Compliance CE

Typical application

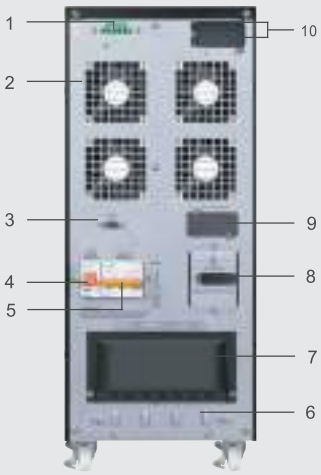


Rear panel



10KS

1. RS232 port
2. Fan
3. Input breaker
4. Terminal block cover
5. Wire collection shelf
6. Maintenance bypass switch (optional)
7. Communication slot box
8. EPO (optional)
9. Parallel port (optional)



15KS/20KS

1. EPO (optional)
2. Fan
3. RS232 port
4. Bypass breaker
5. Input breaker
6. Wire collection shelf
7. Terminal block cover
8. Maintenance bypass switch (optional)
9. Communication slot box
10. Parallel port (optional)

Product specification

Model name		Innova Basic Tower 10KS 3:1	Innova Basic Tower 15KS 3:1	Innova Basic Tower 20KS 3:1
Power rating	VA/Watt	10000VA/9000W	15000VA/13500W	20000VA/18000W
Efficiency	Double coversion mode	94%		
	ECO mode	98%		
Input	Voltage range	1P: 176-275Vac @ 100% load, 120-176Vac derating to 50% load linear;		
		3P: 304-476Vac @ 100% load, 208-304Vac derating to 50% load linear.		
	Rated frequency	50/60Hz		
	Frequency range	40-70Hz (46-54/56-64Hz @ load>60%)		
Input connection	Wiring/socket	Hardware terminal connection		
Output performance	Rated voltage	208/220/230/240VAC (derating to 90% load @208V)		
	Rated frequency	50/60Hz		
	Maximum PF	0.9		
	Voltage accuracy	+/-1%		
	THDv	<2%@linear load, <4%@non-linear load		
	Transfer time (line <-> battery)	0 ms		
	Crest Ratio	3:1 Max		
	Overload(line mode)	105%<load<=125% for 1 minutes;		
		125<load<=150% for 30 seconds;		
		load>150% for 0.5 seconds		
Output connection	Wiring/socket	Hardware terminal connection		
Battery	Voltage	192VDC	192V/216V/240VDC	192V/216V/240VDC
	Inbuilt battery type	NA	NA	NA
Charger	Charging current	4A		
Other working mode	CVCF	Yes (Derating to 60% load)		
	Parallel	3 Max (Optional card)		
HM I(human-machine interface)	Display	LCD		
	USB	No		
	RS232	Yes		
	EPO	Optional		
	Intelligent slot	Optional		
	Monitor software	WinPower		
Physical performance	Dimension(W*D*H)mm	212x500x420	248x500x565	248x500x616 (Include Wheels)
	Net Weight(KG)	16.9	31	31
Environment	Operating temperature	0-40°C		
	Relative Humidity	20%-90%		
	Operating Altitude	0-3000m (derating 1% every 100m up @1000-3000m)		
	Acoustic Noise	<60dB		
Certification	certification/standard	CE, IEC/EN62040		
EMI	Conduction/Radiation	C3		
EMS	ESD	IEC61000-4-2, Level 3		
	RS	IEC61000-4-3, Level 3		
	EFT	IEC61000-4-4, Level 4		
	Surge	IEC61000-4-5, Level 4		
	Maintenance bypass switch	Optional		
Accessory	Input power cable	NA		
	Output power cable	NA		
	EBM cable	Yes	Yes	Yes
	RS232 cable	Yes		
	Manual	Yes		
EBM (External battery module)	Battery	192VDC, 16*2*9Ah VRLA	240VDC, 20*2*7Ah VRLA	240VDC, 20*2*7Ah VRLA
	Dimension(W*H*D) mm	225*416*589	225*416*589	225*416*589
	Weight(Kg)	95.2	115.6	115.6

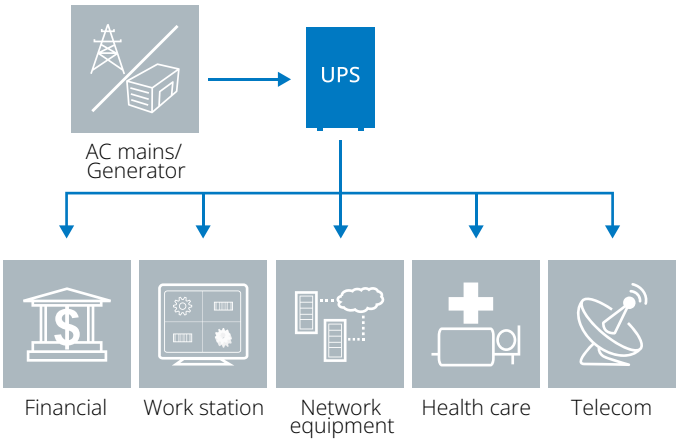
* Due to continuous product improvement programs, specifications are subject to change without notice.

Innova G2 1-3K

Key features

- True double-conversion design with high adaptability to harsh mains conditions
- DSP design enables precise and reliable control
- High efficiency results in energy saving
- Supports energy-saving ECO mode
- Compact size requiring small installation space
- Built-in OVCD protection, fan lock detection, over temperature detection, overload warning to enhance the product reliability
- USB HID enable monitoring on UPS without software installation
- Intelligent communication slot enables remote monitoring
- Programmable LCD display for quick UPS parameters configuration
- Low audible noise at typical load

Typical application



Product rear panel

1K/1.5K 2K 3K

INNOVA G2 1-3K
IEC T rear with RS232

EBM

1KS 1.5KS/2KS 3KS

INNOVA G2 1-3K
DIN T rear (Schuko)

1KS 1.5KS/2KS 3KS

INNOVA G2 1-3KL
IEC T rear

1KS 1.5KS/2KS 3KS

INNOVA G2 1-3KL
DIN T rear (Schuko)

Product specification

	INNOVA G2 1K	INNOVA G2 1KL	INNOVA G2 2K	INNOVA G2 2KL	INNOVA G2 3K	INNOVA G2 3KL
Input						
Input voltage range	100VAC -300VAC					
Phase	Single phase with ground					
Input voltage range to take 40% load	100VAC~300VAC					
Input voltage range to take 100% load	176VAC~300VAC					
Inrush current limit	8*Irms					
Input power factor	≥0.99					
Input frequency range	45-55Hz / 54-66Hz					
Input protection	Breaker					
Generator set	2.2 x UPS Rating Power					
Output						
Power(va) max	1000		2000		3000	
Power(w) max	900		1800		2700	
Power factor	0.9					
Waveform	Pure sine wave					
Nominal voltage	220VAC/230VAC/240VAC					
Voltage variation	± 1 %					
Voltage distortion	< 2% THD@ linear load					
	<6% THD@non-linear load					
Output frequency						
Synchronization range	45-55Hz / 54-66Hz					
Slew rate	1 Hz/s					
Battery mode	(50/60±0.05) Hz					
Transfer time						
Inverter mode --> battery mode	0ms					
Batttery mode --> inverter mode	0ms					
Inverter mode --> bypass mode	4ms					
Full load efficiency						
Line mode with battery full charged	>89%		>91%			
Eco mode	>97.5%		>98%			
Overload capability						
Line mode	100% 105% :Constant					
	105%~130% :60s					
	130%~150% :10s					
	>150% :300ms					
Battery						
Inner battery rating/type	12V/9AH*2	NO	12V/9AH*4	NO	12V/9AH*6	NO
Ebm	NO	YES	NO	YES	NO	YES
Back-up time (full load)	3.5mins typical	/	3.5mins typical	/	3.5mins typical	/
Dc voltage	24VDC		48VDC		72VDC	

* Due to continuous product improvement programs, specifications are subject to change without notice.

Product specification

	INNOVA G2 1K	INNOVA G2 1KL	INNOVA G2 2K	INNOVA G2 2KL	INNOVA G2 3K	INNOVA G2 3KL
Charger						
Charger current	1.5A	3A/6A can be adjusted from LCD display	1.5A	1.5~6A, 1.5A/step 1.5A+/-0.2A@Load>=90% 3A+/-0.4A@90%>Load>=80% 6A+/-0.5A@Others can be adjusted from LCD display	1.5A	1.5~6A, 1.5A/step 1.5A+/-0.2A@Load>=90% 3A+/-0.4A@90%>Load>=80% 6A+/-0.5A@Others can be adjusted from LCD display
Floating voltage phase	13.65V/pc					
Charging time	4 hours to 90%	/	4 hours to 90%	/	4 hours to 90%	/
Features						
Eco mode	YES					
Battery capacity calculation	YES					
Fan speed control	YES					
Frequency converter mode(cvcf)	YES, 60% load					
Indicator & alarm						
Battery mode	Beeps every four second					
Battery low	Sounding every second					
Overload	Sounding twice every second					
Fault	Continuous beeping					
Interface						
Rs232	Optional					
Usb	YES					
Epo function	Yes					
Comm slot	Optional(SNMP /AS400)					
Dry contact	Optional					
Inlet socket/tb	Inlet+Input Powercord					
Mechanical						
Wxhxd(mm)	144*228*356	102X228X346	190*327*399	102X327X390	190*327*399	102X327X390
Net weight(kg)	9.2	3.9	17.4	6.4	22.7	6.4
Environmental						
Operating temperature range	0°C ~ 40 °C					
Relative humidity	0 ~ 95% (No condensing)					
Audible noise(full load)	≤49dB		≤44dB		≤49dB	
Audible noise(60% load)	≤39dB		≤36dB		≤41dB	
Regulations						
Safety	CE					
Transportation	Drop: ISTA 2A, Vibration: internal standard					
Protection	IP20 (static)					

* Due to continuous product improvement programs, specifications are subject to change without notice.

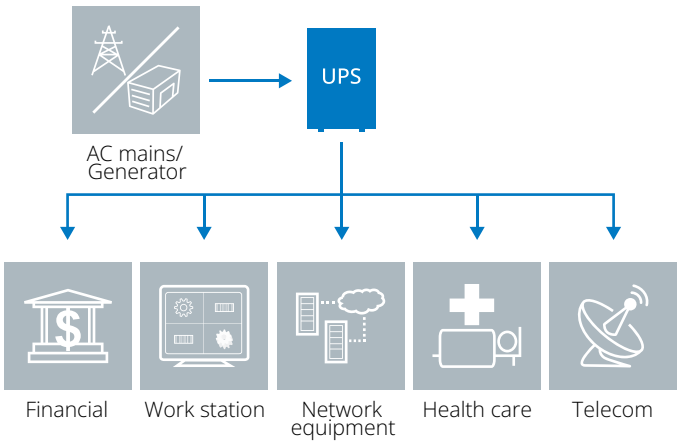
Innova Unity Tower HV 6-10K

6K/10K/6KL/10KL

Key features

- Output power factor 1
- Wide input voltage range 160~276V with full load
- No power derating in full operating temperature range
- Inverter mode efficiency 95%
- Configurable battery voltage from 192~240V without power derating
- Input THDI <3%
- Output THDV <5%
- 3 hours recharging to 90% battery capacity for internal battery
- 12A charger current for long backup time model
- Charger current is adjustable from 1 to 12A through LCD
- Maintenance bypass switch and parallel options are offered

Typical application



Product specification

Model		Innova Unity Tower 6K	Innova Unity Tower 6KL	Innova Unity Tower 10K	Innova Unity Tower 10KL
Capacity		6000VA/6000W		10000VA/10000W	
Input	Input voltage range	110~276VAC			
	Frequency range	40-70Hz			
	Input wiring	Single phase with ground			
	Current distortion (thdi)	<3% @ full load			
Output	Output power factor	1			
	Nominal output voltage	220/230/240VAC			
	Voltage regulation	±1%			
	Frequency range (battery mode)	50/60±0.05 Hz			
	Current crest ratio	3:1			
	Voltage distortion (thdv)	<1 % @ Linear Load, <5% @ Non-Linear Load			
	Output waveform	Pure Sine Wave			
	Parall operation	Up to 3 units			
Efficiency	Inverter mode	95%			
	Battery mode	92%			
	Eco mode	98%			
Battery	Battery type	12V/7Ah	N/A	12V/9Ah	N/A
	Number of Internal battery	16	N/A	16	N/A
	Rated battery voltage	192VAC (192~240VDC configurable)			
	Backup time (@ pf0.9 Load)	4.5 mins	Depends on external battery	3 mins	Depends on external battery
	Backup time (@ 80% load)	5.5 mins		3.5 mins	
	Recharge time (to 90%)	3 hours	N/A	3 hours	N/A
	Charging curent	1.4A (0~4A adjustable)	12A (0~12A adjustable)	2A (0~4A adjustable)	12A (0~12A adjustable)
Transfer time	Battery mode <-> inverter mode	0ms			
	Inverter mode <-> bypass mode	0ms			
	Eco mode <-> battery mode	10ms			
Display		LCD			
Audible alarm		Yes			
Dimension	Wxhxd	220*589*492mm	220*348*492mm	220*589*492mm	220*348*492mm
Environment	Operating temperature	0-40° C			
	Noise level	<45dB @ typical load		<50dB @ typical load	
Interface	Rs232/usb	Yes			
	External slot	Yes			
	Emergency power off	Yes			

* Due to continuous product improvement programs, specifications are subject to change without notice.

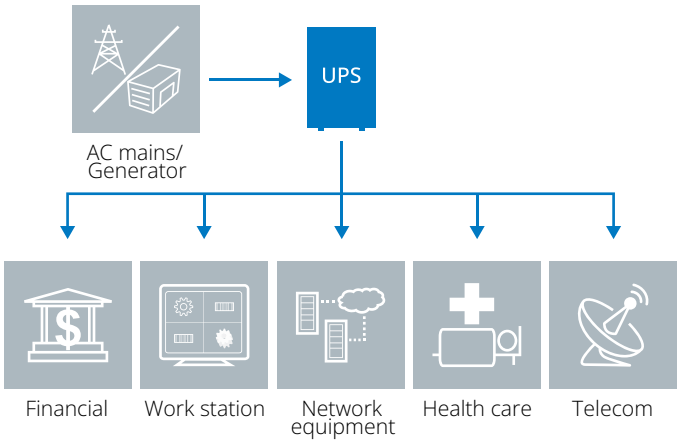
Innova Unity RT HV 6-10K

6K/10K/6KL/10KL

Key features

- Output power factor 1
- No power derating in full operating temperature range
- Upgrade Winpower software seamlessly integrated with virtualization platform
- Inverter mode efficiency 95%
- Configurable battery voltage from 192~240V without power derating
- Input THDI <3%
- Output THDV <5%
- < 600mm depth can fit different dimension rack installation
- 3 hours recharging to 90% battery capacity for internal battery
- 12A charger current for long backup time model
- Maintenance bypass switch and parallel options are offered

Typical application



Product specification

Model name		Innova Unity RT 6K	Innova Unity RT 6KL	Innova Unity RT 10K	Innova Unity RT 10KL
Capacity		6000VA/6000W		10000VA/10000W	
Input	Input Voltage Range	110~276VAC			
	Frequency Range	40-70Hz			
	Input Wiring	Single phase with ground			
	Current Distortion (THDi)	<3% @ full load			
Output	Output Power Factor	1			
	Nominal Output Voltage	220/230/240VAC			
	Voltage Regulation	±1%			
	Frequency Range (Battery Mode)	50/60±0.05 Hz			
	Current Crest Ratio	3:1			
	Voltage Distortion (THDv)	<1 % @ Linear Load, <5% @ Non-Linear Load			
	Output Waveform	Pure Sine Wave			
	Parall Operation	Up to 3 units			
Efficiency	Inverter Mode	95%			
	Battery Mode	92%			
	ECO Mode	98%			
Battery	Battery Type	12V/7Ah	N/A	12V/9Ah	N/A
	Number of Internal Battery	16	N/A	16	N/A
	Rated Battery Voltage	192VAC (192~240VDC configurable)			
	Backup Time (@ PF0.9 Load)	4.5 mins	Depends on external battery	3 mins	Depends on external battery
	Backup Time (@ 80% Load)	5.5 mins		3.5 mins	
	Recharge Time (to 90%)	3 hours	N/A	3 hours	N/A
	Charging Curent	1.4A (0~4A adjustable)	12A (0~12A adjustable)	2A (0~4A adjustable)	12A (0~12A adjustable)
Transfer time	Battery Mode <-> Inverter Mode	0ms			
	Inverter Mode <-> Bypass Mode	0ms			
	ECO Mode <-> Battery Mode	10ms			
Display		LCD			
Audible alarm		Yes			
Dimension	WxHxD	438* 86.2* 573mm (UPS) 438*129* 593mm (battery)	438* 86.2* 573mm	438* 86.2* 573mm (UPS) 438*129* 593mm (battery)	438* 86.2* 573mm
Environment	Operating Temperature	0-40° C			
	Noise Level	<45dB @ typical load		<50dB @ typical load	
Interface	RS232/USB	Yes			
	External Slot	Yes			
	Emergency Power Off	Yes			

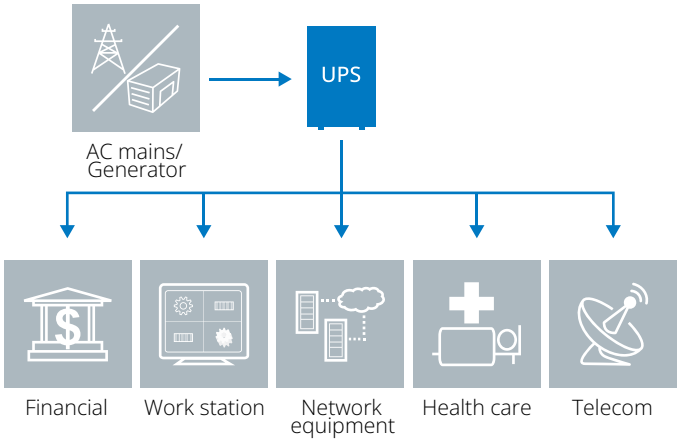
* Due to continuous product improvement programs, specifications are subject to change without notice.

Innova Unity IoT Tower HV 1-3K

Key features

- Real PF 1 Can provide more power with compact footprint design
- On-line mode efficiency is up to 92%, ECO mode efficiency is up to 97%
- Built-in OVCD protection, fan lock detection, over temperature detection, overload warning to enhance the product reliability
- Compact dimension for easy system integration
- Automatic detect additional EBM
- Battery lifetime management through cloud and APP
- Wide input voltage range 110-300VAC to extend battery lifetime
- Generator compatible
- 125% overload for 5 minutes
- Dot matrix LCD support up to 10 languages and multiple outlet configuration for global market deployment
- Embedded Ethernet port solution provide safe network connection to Cloud, which is to easily build centralized management on distributed locations
- Optional wireless communication for environment cable network is not available
- Operating temperature up to 45°C

Typical application



Rear panel

Product specification

Model name		Tower 1K	Tower 1KS	Tower 1.5K	Tower 1.5KS	Tower 2K	Tower 2KS	Tower 3K	Tower 3KS
Power rating	VA/Watt	1000VA/1000W		1500VA/1500W		2000VA/2000W		3000VA/3000W	
Efficiency	Double coversion mode	91%		92%		93.5%		94%	
	ECO mode	97%		98%		97.5%		98%	
Input performance	Rated voltage	200/208/220/230/240 VAC							
	Voltage range	160-300V 100% load, 110-160V derating to 50% load linearly							
	THDI	<5%							
Output performance	Rated voltage	200/208/220/230/240 VAC(derating 10% at 208V, derating 20% at 200V)							
	THDv	<1% linear load <5% non linear load							
	Performance clas-sification	VFI-SS-313							
	Crest Ratio	Max 3:1							
	Overload	100%<load≤105% continuous. 105%< load ≤125% for 5 minutes 125<load≤150% for 30 seconds. >150% for 500ms.							
Input connection		IEC C14				IEC C20			L/N/PE hardware terminnal connection
Output connection	Wiring/socket	4 x IEC C13				8 x IEC C13		8 x IEC C13 + hardwire terminal	
Battery	Voltage	36VDC				72VDC			
	Capacity(AH)	3 x 12V/9Ah	NA	6 x 12V/7Ah	NA	6 x 12V/9Ah	NA	6 x 12V/9Ah	NA
Maximum connect external battery module quantity		4							
External battery module connection	power/signal	Socket/RJ45							
External battery mod-ule auto detection		Yes							
Battery replacement		Open chassis to replace battery							
Charger	Charging methord	OBM (Optimized Battery Management) charging, temperature compensated charger							
	Charging current	1.5A	2A/4A/6A/8A, adjustalbe	1.5A	2A/4A/6A/8A, adjustalbe	1.5A	2A/4A/6A/8A, adjustalbe	1.5A	2A/4A/6A/8A, adjustalbe
	Recharging time	3h to 90%	depends on exteranl battery capacity	3h to 90%	depends on exteranl battery capacity	3h to 90%	depends on exteranl battery capacity	3h to 90%	depends on exteranl battery capacity
Other working mode	CVCF	Yes (derating to 60% load)							
HMI	Display	Dot matrix LCD, (Optional segment LCD)							
	Language	Support 10 languages (8 default, 2 for customized)							
	Monitor software	Winpower, Winpower View APP							
Communication port		USB HID Power Device, RS232, EPO, dry in, dry out, Intelignet slot, Ethernet port							
Communication card (Optional)		NMC card (with enhanced cyber security design), MODBUS card, dry contact card							
Physical performance	Dimension(W*D*H) mm	145*400*220				192*424*318			
	IP protection level	IP20							
	Plug solid	No							
	Wheel	No							
Environment	Operating temperature	0-45°C (power derating to 80% @40-45°C)							
	Acoustic Noise	<40dB @ typical load with battery fully charged				<45dB @ typical load with battery fully charged	<46dB @ typical load with battery fully charged	<45dB @ typical load with battery fully charged	<46dB @ typical load with battery fully charged
Certification		CE,IEC/EN 62040							
EMI	Conduction/Radiation	C2							
EMS	ESD	IEC/EN 61000-4-2							
	RS	IEC/EN 61000-4-3							
	EFT	IEC/EN 61000-4-4							
	Surge	IEC/EN 61000-4-5							

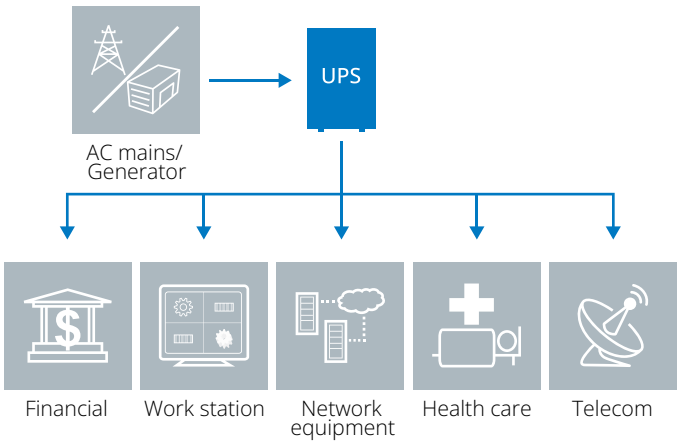
* Due to continuous product improvement programs, specifications are subject to change without notice.

Innova Unity IoT RT HV 1-3K

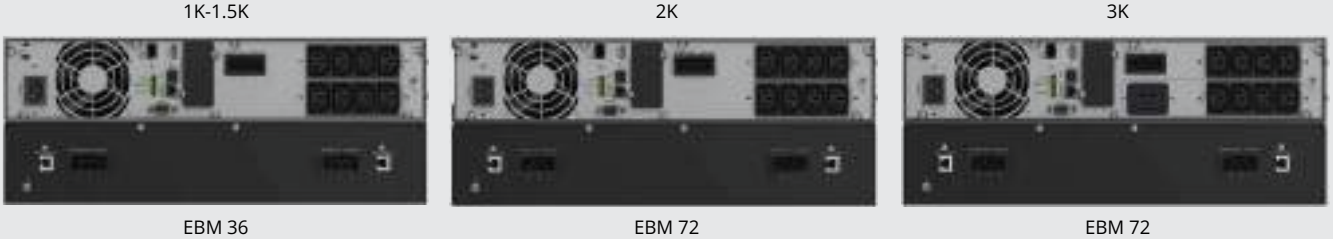
Key features

- Real PF 1 in 2U height cabinet including battery pack
- On-line mode efficiency is up to 91%, ECO mode efficiency is up to 97%
- Built-in OVCD protection, fan lock detection, over temperature detection, overload warning to enhance the product reliability
- Easy replacement battery at front panel (for both UPS and EBM), battery hot swappable by user
- Automatic detect additional EBM
- Wide input voltage range 110-300VAC to extend battery lifetime
- Generator compatible
- 125% overload for 5 minutes
- Programmable outlet group will extend back up time for most critical equipment
- Dot matrix LCD support up to 10 languages for global market deployment
- Embedded Ethernet port solution provide safe network connection to Cloud, which is easy to build centralized management on distributed locations
- Optional wireless communication kit (WLAN dongle) with router
- Optional rail kit support 600-1200mm rack installation

Typical application



Rear panel



Product specification

Model name		RT 1K	RT 1KS	RT 1.5K	RT 1.5KS	RT 2K	RT 2KS	RT 3K	RT 3KS
Power rating	VA/Watt	1000VA/1000W		1500VA/1500W		2000VA/2000W		3000VA/3000W	
Efficiency	Double coversion mode	91%		92%		93%			
	ECO mode	97%		98%		97%			
Input performance	Input performance	200/208/220/230/240V							
	Input THDi	160-300V 100% load, 110-160V derating to 50% load linearly							
	Output Voltage	<5%							
Output performance	Rated voltage	200/208/220/230/240 VAC(derating 10% at 208V, derating 20% at 200V)							
	THDv	<1% linear load <5% non linear load							
	Performanceclas-sification	VFI-SS-313							
	Crest Ratio	Max 3:1							
	Overload	100%<load≤105% continuous. 105%< load ≤125% for 5 minutes 125<load≤150% for 30 seconds. >150% for 500ms.							
Input connection		IEC C14				IEC C20			
Output connection	Wiring/socket	1 main outlet group (with 4 x IEC C13) and 1 programmable outlet group (with 4 x IEC C13)						1 main outlet group (with 1 x IEC C19 + 4 x IEC C13) and 1 programmable outlet group (with 4 x IEC C13)	
	Load segment control	Yes							
Battery	Voltage	36V				72V			
	Capacity(AH)	3 x 12V/7Ah	NA	3 x 12V/9Ah	NA	6 x 12V/7Ah	NA	6 x 12V/9Ah	NA
Maximum connect external battery module quantity		4							
External battery module connection	power/signal	Socket/RJ45							
External battery mod-ule auto detection		Yes							
Battery replacement		hot swappable by end user							
Charger	Charging methord	OBM (Optimized Battery Management) charging, temperature compensated charger							
	Charging current	1.5A	2A/4A/6A/8A, adjustalbe	1.5A	2A/4A/6A/8A, adjustalbe	1.5A	2A/4A/6A/8A, adjustalbe	1.5A	2A/4A/6A/8A, adjustalbe
	Recharging time	3h to 90%	NA	3h to 90%	NA	3h to 90%	NA	3h to 90%	NA
Other working mode	CVCF	Yes (derating to 60% load)							
HMI	Display	Dot matrix LCD, rotatable manually (optional segment LCD)							
	Language	Support 10 languages (8 default 2 for customized)							
	USB	USB 2.0 with HID							
	RS232	Yes (DB9)							
	Dry in/out	1 programble dry in; 1 programble dry out							
	EPO	Yes							
	Intelignet slot	Yes (for long card)							
	Ethernet port for IOT	RJ45							
	Monitor software	Winpower							
Physical performance	Dimension(W*D*H) mm	438*445*85.5(2U)	438*445*85.5(2U)	438*445*85.5(2U)	438*445*85.5(2U)	438*600*85.5(2U)	438*600*85.5(2U)	438*600*85.5(2U)	438*600*85.5(2U)
	IP protection level	IP20							
Environment	Operating tem-perature	0-40^{0}C							
	Acoustic Noise	<45dB @ typical load with battery fully charged				<50dB @ typical load with battery fully charged			
Certification		CE, IEC/EN 62040							
EMI	Conduction/Radiation	C2							
EMS	ESD	IEC/EN 61000-4-2							
	RS	IEC/EN 61000-4-3							
	EFT	IEC/EN 61000-4-4							
	Surge	IEC/EN 61000-4-5							

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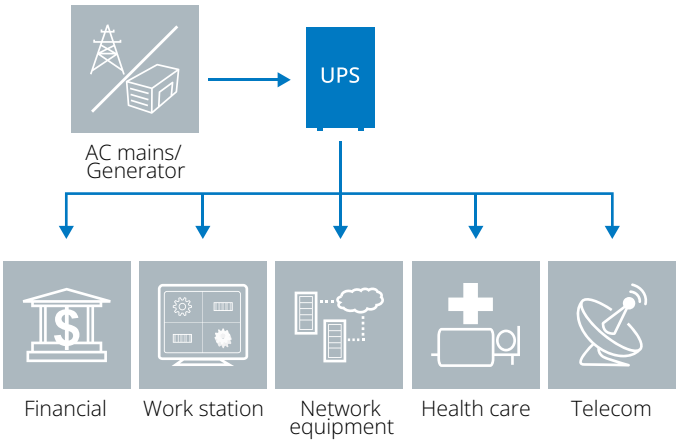
Innova Unity IoT Tower HV 6-10K

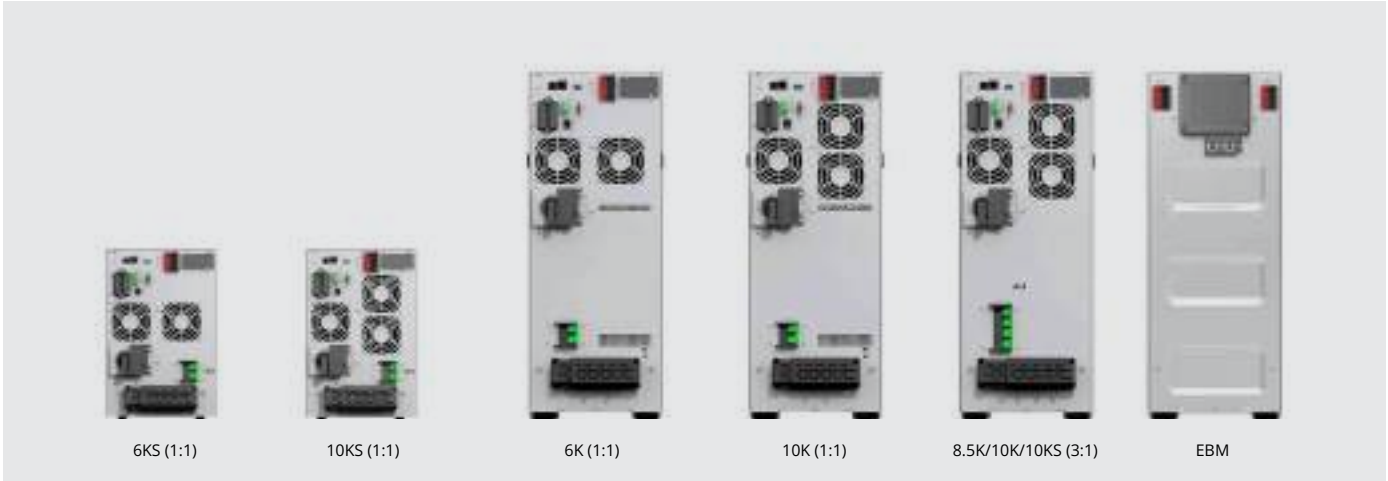
Key features

- Real PF 1 Can provide more power with compact footprint design
- On-line mode up is to 95%, ECO mode efficiency is up to 98%
- Built-in OVCD protection, fan lock detection, over temperature detection, overload warning to enhance the product reliability
- 125% overload for 10 minutes
- Built-in MBS for maintenance
- Automatic detect additional EBM
- Battery lifetime management through cloud and APP
- Digital charger: 0-4A adjustable for standard model, 0-12A adjustable for long backup model
- Battery quantity is adjustable 16/17/18/19/20 for long backup model
- Optional parallel up to 3 units
- USB, RS232, Dry contactors and network card for communication
- Dot matrix LCD support up to 10 languages for global deployment
- Embedded Ethernet port solution provide safe network connection to Cloud, which is to easily build centralized management on distributed locations
- Optional wireless communication for environment cable network is not available
- Operating temperature up to 50°C

Typical application



Rear panel



Product specification

Model name		Tower 6K	Tower 6KS	Tower 10K	Tower 10KS	Tower 10K 3-1	Tower 10KS 3-1
Power rating	VA/Watt	6000VA/6000W		10000VA/10000W			
Efficiency	Double coversion mode	95%					
	ECO mode	98%					
Input performance	Rated voltage	220/230/240V				220/230/240V or 380/400/415V	
	Voltage range	160-275V 100% load, 110-160V derating to 50% load linearly					
	THDI	<3% linear load <5% non linear load				<30% at 3 phase input <5% at 1 phase inut	
Output performance	Rated voltage	220/230/240V					
	THDv	<1% linear load <5% non linear load					
	Performance classification	VFI-SS-111					
	Crest Ratio	Max 3:1					
	Overload	100%<load≤105% continuous. 105%< load ≤125% for 10 minutes 125<load≤150% for 30 seconds. >150% for 500ms.					
Input connection		L/N/PE hardware terminnal connection				L1/L2/L3/N/PE or L/N/PE hardware terminnal connection	
Output connection	Wiring/socket	L/N/PE hardware terminnal connection					
Battery	Voltage	192VDC (192~240VDC adjustable)					
	Capacity(AH)	16*12V/7Ah, 16~20pcs adjustable	NA	16*12V/9Ah, 16~20pcs adjustable	NA	16*12V/9Ah, 16~20pcs adjustable	NA
Maximum connect external battery module quantity		6					
External battery module connection	power/signal	Socket/RJ45					
External battery module auto detection		Yes					
Battery replacement		Open chassis to replace battery					
Charger	Charging methord	OBM (Optimized Battery Management) charging, temperature compensated charger					
	Charging current	1.4A(1-4A adjustalbe)	4A(2-12A adjustable)	2A(1-4A adjustable)	4A(2-12A adjustable)	2A(1-4A adjustalbe)	4A(2-12A adjustalbe)
	Recharging time	3h to 90%	Depends on exteranl battery capacity	3h to 90%	Depends on exteranl battery capacity	3h to 90%	Depends on exteranl battery capacity
Other working mode	CVCF	Yes (derating to 60% load)				Yes (derating to 60% load @ 1 phase in and 1 phase out mode)	
	Parallel	Optional (up to 3)					
HMI	Display	Dot matrix LCD					
	Language	Support 10 languages (8 default, 2 for customized)					
	Monitor software	Winpower, Winpower View APP					
Communication port		USB HID Power Device, RS232, EPO, dry in, dry out, Intelignet slot, Ethernet port					
Communication card (Optional)		NMC card (with enhanced cyber security design), MODBUS card, dry contact card					
Physical performance	Dimension(W*D*H)mm	220*492*589	220*492*348	220*492*589	220*492*348	220*492*589	220*492*589
	IP protection level	IP20					
	Plug solid	NA					
	Wheel	Yes					
Environment	Operating temperature	0-50°C(power derating to 50% @40-50°C)					
	Acoustic Noise	<50dB @ typical load with battery fully charged		<55dB @ typical load with battery fully charged			
Certification		CE,IEC/EN 62040					
EMI	Conduction/Radiation	C3					
EMS	ESD	IEC/EN 61000-4-2					
	RS	IEC/EN 61000-4-3					
	EFT	IEC/EN 61000-4-4					
	Surge	IEC/EN 61000-4-5					

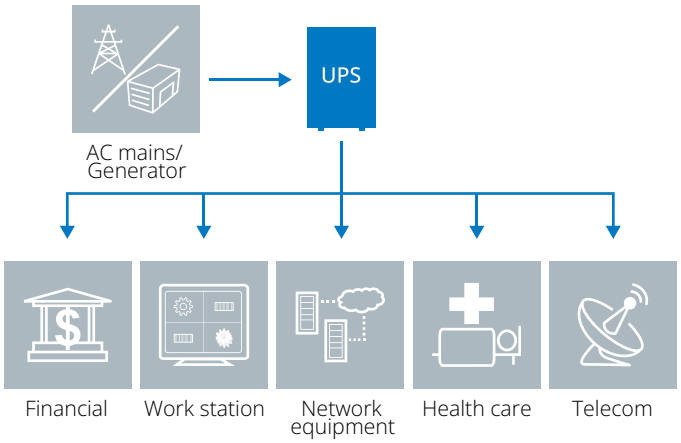
* Due to continuous product improvement programs, specifications are subject to change without notice.

Innova Unity IoT RT HV 6-10K

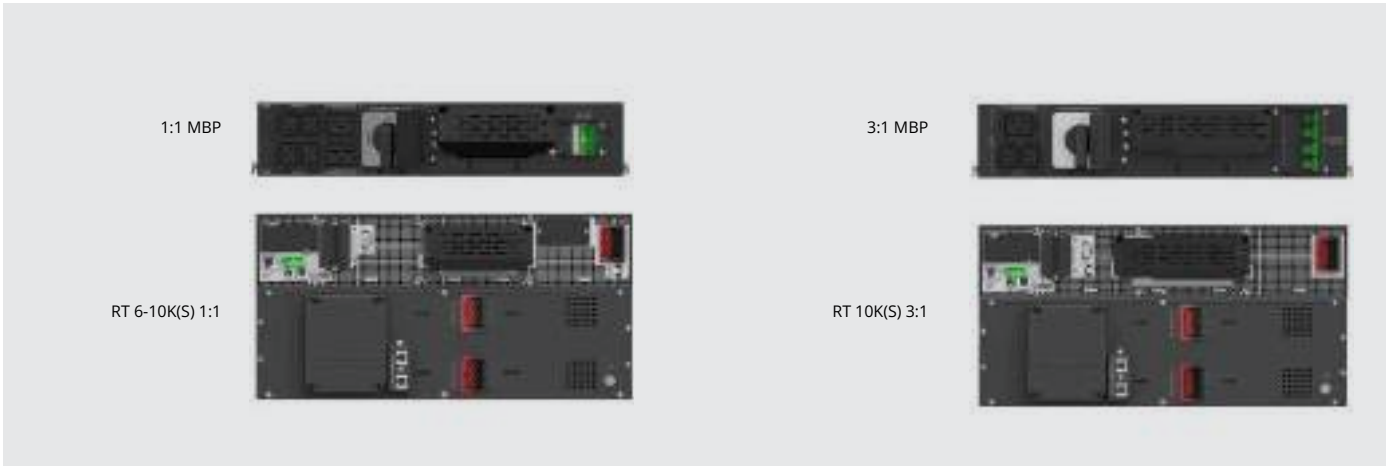
Key features

- Real PF 1 no power derating in full operating temperature range
- On-line efficiency mode up is to 95%, ECO mode efficiency is up to 98%
- 2U height for UPS and depth less than 600mm (excluding front panel)
- Built-in OVCD protection, fan lock detection, over temperature detection, overload warning to enhance the product reliability
- 125% overload for 10 minutes
- Optional MBP(with 4 x IEC C13, 2 x IEC C19 and hardwiring output connection)
- Automatic detect additional EBM
- Digital charger: 0-4A adjustable for standard model, 0-12A adjustable for long backup model
- Battery quantity is adjustable 16/17/18/19/20 for long backup model
- Optional parallel up to 3 units
- USB, RS232, Dry contactors and network card for communication
- Dot matrix LCD support up to 10 languages for global deployment
- Embedded Ethernet port solution provide safe network connection to Cloud, which is to easily build centralized management on distributed locations
- Optional wireless communication for environment cable network is not available

Typical application



Rear panel



Product specification

Model name		RT 6K	RT 6KS	RT 10K	RT 10KS
Power rating	VA/Watt	6000VA/6000W		10000VA/10000W	
Efficiency	Double coversion mode	95%			
	ECO mode	98%			
Input performance	Input performance	220/230/240V			
	Input THDi	160-275V 100% load, 110-160V derating to 50% load linearly			
	Output Voltage	<3% linear load <5% non linear load			
Output performance	Rated voltage	220/230/240V			
	THDv	<1% linear load <5% non linear load			
	Performanceclassification	VFI-SS-111			
	Crest Ratio	max 3:1			
	Overload	100%<load≤105% continuous. 105%< load ≤125% for 10 minutes 125<load≤150% for 30 seconds. >150% for 500ms.			
Input connection		L/N/PE hardware terminnal connection			
Output connection	Wiring/socket	L/N/PE hardware terminnal connection			
	Load segment control	Optional (need MBP model)			
Battery	Voltage	192VDC(192~240VDC adjustable)			
	Capacity(AH)	16*12V/7Ah, 16~20pcs adjustable	NA	16*12V/9Ah, 16~20pcs adjustable	NA
Maximum connect external battery module quantity		6			
External battery module connection	power/signal	Socket/RJ45			
External battery module auto detection		Yes			
Battery replacement		Replace EBM			
Charger	Charging methord	OBM (Optimized Battery Management) charging, temperature compensated charger			
	Charging current	1.4A(1-4A adjustalbe)	4A(2-12A adjustable)	2A(1-4A adjustable)	4A(2-12A adjustable)
	Recharging time	3h to 90%	NA	3h to 90%	NA
Other working mode	CVCF	Yes (derating to 60% load)			
	Parallel	Optional (up to 3)			
HMI	Display	Dot matrix LCD, rotatable manually			
	Language	Support 10 languages (8 default 2 for customized)			
	USB	USB 2.0 with HID			
	RS232	Yes (DB9)			
	Dry in/out	1 programble dry in; 1 programble dry out			
	EPO	Yes			
	Intelignet slot	Yes (for long card)			
	Ethernet port for IOT	RJ45			
	Monitor software	Winpower			
Physical performance	Dimension(W*D*H)mm	438*573*86.2 (Power module, 2U) 438*593*129 (Battery, 3U)			
	IP protection level	IP20			
Environment	Operating temperature	0-50^{0}C(power derating to 50% @40-50^{0}C			
	Acoustic Noise	<50dB @ typical load with battery fully charged			
Certification		CE,IEC/EN 62040			
EMI	Conduction/Radiation	C3			
EMS	ESD	IEC/EN 61000-4-2			
	RS	IEC/EN 61000-4-3			
	EFT	IEC/EN 61000-4-4			
	Surge	IEC/EN 61000-4-5			

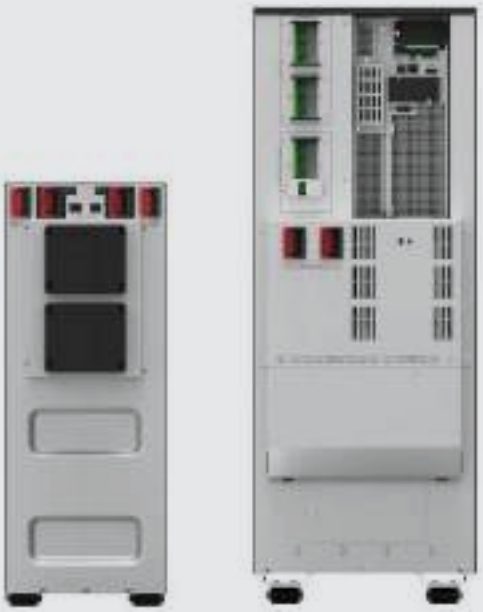
* Due to continuous product improvement programs, specifications are subject to change without notice.

Innova Unity IoT Tower HV 10-20K

Key features

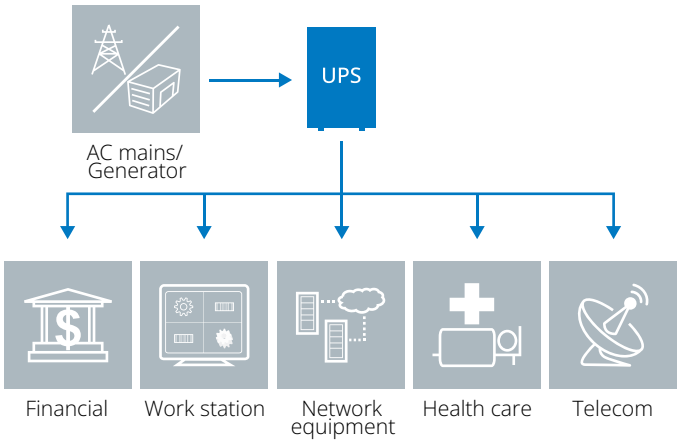
- Real PF 1 with internal battery blocks up to 40 max. in a compact size
- On-line mode efficiency up to 96%, ECO mode efficiency up to 98.8%
- Flexible 3:3, 3:1, 1:1 input and output wiring encourage distributors to stock the product and catch up with project opportunity with short lead time
- Built-in OVCD protection, fan lock detection, over temperature detection, overload warning to enhance the product reliability
- 125% overload for 10 minutes
- Built-in MBS for maintenance
- Automatic detect additional EBM
- Battery lifetime management through cloud and APP
- Digital charger: 0-13A adjustable
- Battery quantity is adjustable ± 8/9/10 for 10K, ±16/17/18/19/20 for 15/20K
- Optional parallel up to 3 units
- USB, RS232, Dry contactors and network card for communication
- Color touchable LCD display with gravity sensor and support up to 10 languages for global deployment
- Embedded Ethernet port solution provide safe network connection to Cloud, which will meet the increasing IoT trend
- Optional wireless communication for environment cable network is not available
- Operating temperature up to 50°C

Rear panel



EBM 10-20K(S)3:3 10-20K(S)3:3

Typical application



Product specification

Model name		Tower 10K 3-3	Tower 10KS 3-3	Tower 15K 3-3	Tower 15KS 3-3	Tower 20K 3-3	Tower 20KS 3-3
Power rating	VA/Watt	10000VA/10000W		15000VA/15000W		20000VA/20000W	
Efficiency	Double coversion mode	95%		96%			
	ECO mode	98%		98.8%			
Input performance	Dual input for line and bypass	Yes					
	Rated voltage	220/230/240V or 380/400/415V					
	Voltage range	160-300V (273-520) 100% load, 100-160V (173-273) derating to 50% load linearly					
	THDI	<3% linear load <5% non linear load					
Input connection		L1/L2/L3/N/PE or L/N/PE hardware terminnal connection					
Output performance	Rated voltage	220/230/240V or 380/400/415V					
	Rated frequency	50Hz/60Hz					
	Maximum PF	1					
	Voltage accuracy	±1%					
	THDv	<1% linear load <5% non linear load					
	Performance classification	VFI-SS-111					
	Crest Ratio	Max 3:1					
	Overload	100%<load≤105% continuous. 105%< load ≤125% for 10 minutes 125<load≤150% for 1 minutes >150% for 500ms.					
Output connection	Wiring/socket	L1/L2/L3/N/PE or L/N/PE hardware terminnal connection					
Battery	Voltage	192VDC (192~240VDC adjustable)		384VDC (384~480VDC adjustable)			
	Capacity(AH)	2*8*12V/9Ah, 16~20pcs adjustable	NA	2*16*12V/7Ah, 32~40pcs adjustable	NA	2*16*12V/9Ah, 32~40pcs adjustable	NA
Maximum connect external battery module quantity		6					
External battery module connection	power/signal	Socket/RJ45 (8 pin)					
External battery module auto detection		Yes					
Battery replacement		Open chassis to replace battery					
Charger	Charging methord	OBM (Optimized Battery Management) charging, temperature compensated charger					
	Charging current	2A(1-13A adjustalbe)	4A(1-13A adjustalbe)	1.4A(1-13A adjustalbe)	4A(1-13A adjustalbe)	2A(1-13A adjustalbe)	4A(1-13A adjustalbe)
	Recharging time	3h to 90%	depends on exteranl battery capacity	3h to 90%	depends on exteranl battery capacity	3h to 90%	depends on exteranl battery capacity
Other working mode	CVCF	Yes (derating to 60% load)					
	Parallel	Optional (up to 3)					
HMI	Display	Colour touch LCD (optional Dot matrix LCD)					
	Language	Support 10 languages (8 default, 2 for customized)					
	Monitor software	Winpower, Winpower View APP					
Communication port		USB HID Power Device, RS232, EPO, dry in, dry out, Intelignet slot, Ethernet port					
Communication card (Optional)		NMC card (with enhanced cyber security design), MODBUS card, dry contact card					
Physical performance	Dimension(W*D*H)mm	UPS: 300*718.2*805.5 EBM: 225*518*589					
	IP protection level	IP20					
	Wheel	Yes					
Environment	Operating temperature	0-50^{0}C (power derating to 50% @40-50^{0}C)					
	Acoustic Noise	<55dB @ typical load with battery fully charged					
Certification		CE,IEC/EN 62040					
EMI	Conduction/Radiation	C3					
EMS	ESD	IEC/EN 61000-4-2					
	RS	IEC/EN 61000-4-3					
	EFT	IEC/EN 61000-4-4					
	Surge	IEC/EN 61000-4-5					

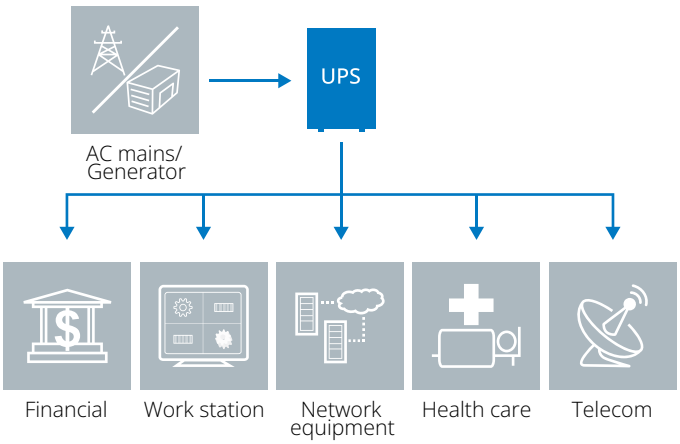
* Due to continuous product improvement programs, specifications are subject to change without notice.

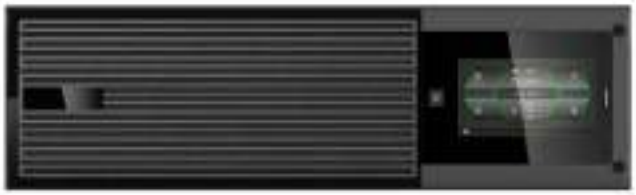
Innova Unity IoT RT HV 10-20K

Key features

- Real PF 1 no power derating in full operating temperature range
- On-line mode efficiency up to 96%, ECO+ mode efficiency up to 98% without
- 3U height for UPS and depth 559mm (excluding front panel and rear panel wiring), support rack depth from 800m
- Flexible 3:3, 3:1, 1:1 input and output wiring encourage IT distributor to stock the product and catch up with the fast deployment demand of edge computing network
- Built-in OVCD protection, fan lock detection, over temperature detection, overload warning to enhance the product reliability
- 125% overload for 10 minutes
- Optional standard MBP (with 6 x IEC C13, 3 x IEC C19 and hardwiring output) and parallel MBP (with hardwiring output)
- Automatic detect additional EBM
- Battery lifetime management through cloud and APP
- Digital charger: 0-13A adjustable
- Battery quantity is adjustable ±96/108/120V (16/18/20 pcs battery) for 10K, ±192/204/216/240V (32/34/36//38/40 pcs battery) for 15/20K
- Optional parallel up to 3 units
- USB, RS232, Dry contactors and network card for communication
- Color touchable LCD display with gravity sensor and support up to 10 languages for global deployment
- Embedded Ethernet port solution provide safe network connection to Cloud, which will meet the increasing IoT trend
- Optional wireless communication for environment cable network is not available

Typical application





Rear panel

Single MBP for RT 10-20K(S)

Innova Unity RT 10K

Single MBP for RT 10-20K(S)

Innova Unity RT 15-20K

Innova Unity RT 15-20K(S)EBM
(Battery +)

Innova Unity RT 15-20K(S)EBM
(Battery -)

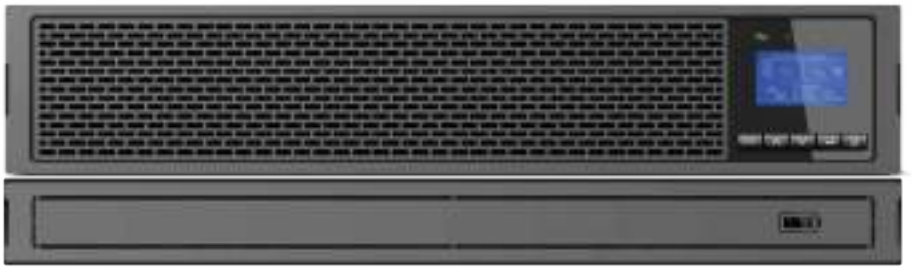
Innova Unity RT 10K(S)EBM

Product specification

Model name		RT 10K 3-3	RT 10KS 3-3	RT 15K 3-3	RT 15KS 3-3	RT 20K 3-3	RT 20KS 3-3
Power rating	VA/Watt	10000VA/10000W		15000VA/15000W		20000VA/20000W	
Efficiency	Double coversion mode	95%		96%			
	ECO mode	98%		98.8%			
Input performance	Input phase	3 or 1					
	Dual input for line and bypass	Yes					
	Rated voltage	220/230/240V or 380/400/415V					
	Voltage range	160-300V (273-520) 100% load, 100-160V 173-273 derating to 50% load linearly					
	THDI	<3% linear load <5% non linear load					
Input connection		L1/L2/L3/N/PE or L/N/PE hardware terminnal connection					
Output performance	Rated voltage	220/230/240V or 380/400/415V					
	Rated frequency	50Hz/60Hz					
	Maximum PF	1					
	Voltage accuracy	±1%					
	THDv	<1% linear load <5% non linear load					
	Performance classification	VFI-SS-111					
	Crest Ratio	Max 3:1					
	Overload	100%<load≤105% continuous. 105%< load ≤125% for 10 minutes 125<load≤150% for 1 minutes >150% for 500ms.					
Output connection	Wiring/socket	L1/L2/L3/N/PE or L/N/PE hardware terminnal connection					
	Load segment control	Optional (need MBP model)					
Battery	Voltage	192VDC (192~240VDC adjustable)		384VDC (384~480VDC adjustable)			
	Power/signal	2*8*12V/9Ah, 16~20pcs adjustable	NA	2*16*12V/7Ah, 32~40pcs adjustable	NA	2*16*12V/9Ah, 32~40pcs adjustable	NA
Maximum connect external battery module quantity		6					
External battery module connection	power/signal	Socket/RJ45 (8 pin)					
External battery module auto detection		Yes					
Battery replacement		Replace EBM					
Charger	Charging methord	OBM (Optimized Battery Management) charging, temperature compensated charger					
	Charging current	2A(1-13A adjustalbe)	4A(1-13A adjustalbe)	1.4A(1-13A adjustalbe)	4A(1-13A adjustalbe)	2A(1-13A adjustalbe)	4A(1-13A adjustalbe)
	Recharging time	3h to 90%	depends on exteranl battery capacity	3h to 90%	depends on exteranl battery capacity	3h to 90%	depends on exteranl battery capacity
Other working mode	CVCF	Yes (derating to 60% load)					
	Parallel	Optional (up to 3)					
HMI	Display	Colour touch LCD (optional Dot matrix LCD)					
	Language	Support 10 languages (8 default, 2 for customized)					
	Monitor software	Winpower, Winpower View APP					
Communication port		USB HID Power Device, RS232, EPO, dry in, dry out, Intelignet slot, Ethernet port					
Communication card (Optional)		NMC card (with enhanced cyber security design), MODBUS card, dry contact card					
Other working mode	CVCF	Yes (derating to 60% load @ 1 phase in and 1 phase out mode)					
	Parallel	Optional (up to 3)					
Physical performance	Dimension(W*D*H)mm	Power module: 438*592*129 (3U) Battery: (438*592*129)*2 (6U)					
	IP protection level	IP20					
Environment	Operating temperature	0-50^{0}C(power derating to 50% @40-50^{0}C					
	Acoustic Noise	<55dB @ typical load with battery fully charged					
Certification		CE, IEC/EN 62040					
EMI	Conduction/Radiation	C3					
EMS	ESD	IEC/EN 61000-4-2					
	RS	IEC/EN 61000-4-3					
	EFT	IEC/EN 61000-4-4					
	Surge	IEC/EN 61000-4-5					

* Due to continuous product improvement programs, specifications are subject to change without notice.

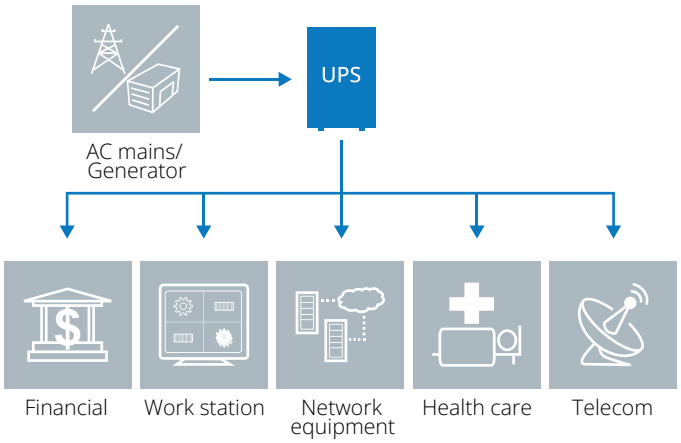
Innova Unity IoT RT HV Lithium-Ion 1-3k



Key features

- Maximum output power factor is 1, VA=W
- Up to 94% leading efficiency.
- Level 3 Built-in lithium battery, synchronization with UPS (Capacity, health, behavior, external balancing)
- Extended backup time with up to 4-6 optional EBMs, with automatic detection
- Compact design: 2U UPS+ 1U EBM
- Rack/tower dual set-up with rotatable LCD panel
- USB, RS232 port, dry contacts, RPO & ROO connectors, optional SNMP
- Built-in Ethernet port for cloud connection
- Certification: CE, UN38.3, IEC62019, UL1973(PACK).

Typical application



Rear panel

1K-1.5K

EBM 48V

2K

EBM 76.8V

3K

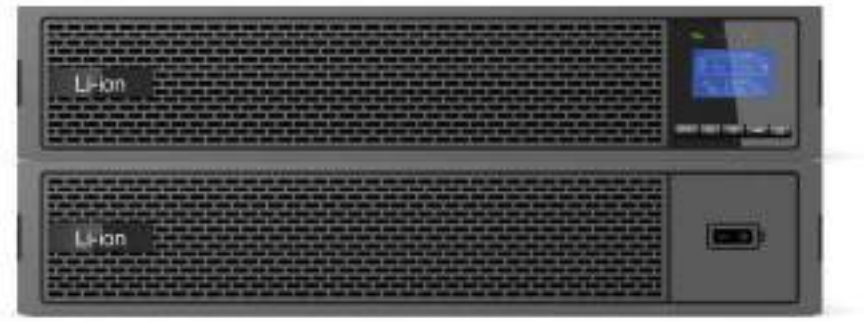
EBM 76.8V

Product specification

Model name		1K	1.5K	2K	3K
Power rating	VA/Watt	1000VA/1000W	1500VA/1500W	2000VA/2000W	3000VA/3000W
Efficiency	Line mode	up to 91.3%	up to 92.1%	up to 93.8%	up to 94%
	ECO mode	up to 97.1%	up to 98.2%	up to 97.8%	up to 98.4%
Input performance	Voltage range	160-300V 100% load, 110-160V derating to 50% load linearly			
	Rated frequency	50Hz/60Hz			
	Frequency range	40Hz-70Hz (45Hz-55Hz, 54Hz-66Hz @ load>60%)			
	PF	>0.99			
	THDI	<5.5%		<5%	<5%
Input connection	Socket (RT)	1x IEC C14		1x IEC C20	
Output performance	Rated voltage	200/208/220/230/240 VAC (derating 10% at 208V, derating 20% at 200V)			
	Rated frequency	50Hz/60Hz			
	Maximum PF	PF = 1			
	Voltage accuracy	±1%			
	THDV	<1% linear load; <4% nonlinear load			
	Transfer time	0ms@line <-> battery; 4ms @ line <-> bypass; 10ms @ ECO <->Inve rter			
	Crest Ratio	Max 3:1			
	Overload	100%<load≤105% continuous , 105%< load ≤125% for 5 minutes 125<load≤150% for 30 seconds , >150% for 500ms			
Output connection	Socket	1 main outlet group (with 4 x IEC C13) 1 programmable outlet group (with 4 x IEC C13)			1 main outlet group (with 1 x IEC C19 + 4 x IEC C13) 1 programmable outlet group (with 4 x IEC C13)
	Load segment control	1 programmable load segment control			
Short-circuit current (RMS) /protect time	Bypass mode	550A/2.8ms		699A/7ms	699A/7ms
	Normal/Battery mode	20A/100ms		36A/100ms	54A/100ms
Battery	Voltage	48VDC		76.8VDC	76.8VDC
	Capacity (AH)	9Ah		9Ah	9Ah
	Material	lithium iron phosphate (Li-FePO4)			
Maximum EBM quantity		4			
EBM auto detection		Yes			
Battery Hot swappable		Yes			
Charger	Charging method	BMS			
	Charging current	1.5A		1.5A	1.5A
	Recharging time	3.6h to 90%		4.6h to 90%	4.6h to 90%
Other mode	CVCF	Yes (derating to 60% load)			
HMI	Display	Dot matrix LCD (optional segment LCD)			
	Language	Multi-Language			
	USB	USB 2.0 with HID power device			
	RS232	Yes (DB9)			
	Dry in/out	1 programmable dry in; 1 programmable dry out			
	RPO	Yes			
	Intelligent slot	Yes (for long card)			
	Network card	Optional, NMC long card			
	Modbus card	Optional, CMC Long Card			
	Dry contactor card	Optional, AS400 Long Card			
	Wireless module	Optional			
	IOT Ethernet port	RJ45			
	Monitor software	Winpower, Winpower View APP			
Physical performance	Dimension (W*D*H)mm	438*445*85.5(2U)		438*600*85.5(2U)	
	IP protection level	IP20			
	Plug solid	Optional			
	Wheel	No			
Environment	Operating temperature	0-40°C			
	storage temp	0 to 40°C (32 to 104°F) with batteries & -25 to 55°C (5 to 140°F) without batteries			
	Relative Humidity	0-95%			
	Operating Altitude	0~3000m (the load derating 1 % every up 100m @1000~3000m)			
	Acoustic Noise	<45dB at front 1m		<50dB at front 1m	
Certification	UPS	CE/CB, IEC62040, UN38.3			
	EBM	IEC62619, UN38.3, UL1973 compliant			
EMI	Conduction / Radiation	C2			
EMS	ESD	IEC/EN 61000-4-2			
	RS	IEC/EN 61000-4-3			
	EFT	IEC/EN 61000-4-4			
	Surge	IEC/EN 61000-4-5			

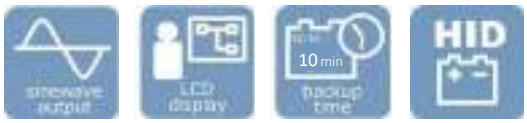
Initial Spec. Due to continuous product improvement, specifications are subject to change without notice.

Innova Unity IoT RT HV Lithium-Ion 6-10k

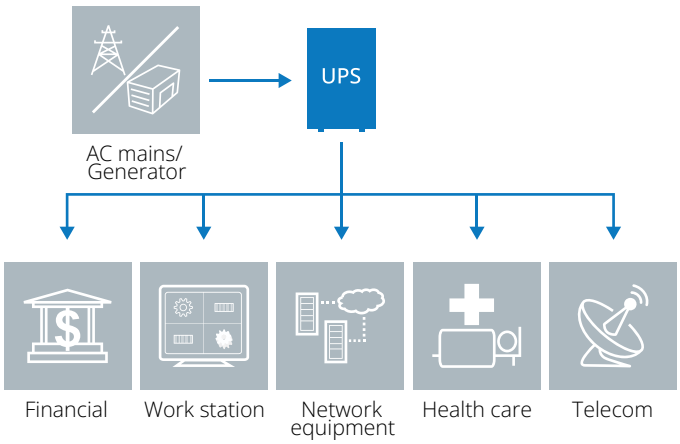


Key features

- Maximum output power factor is 1, VA=W
- Up to 95% leading efficiency.
- Level 3 Built-in lithium battery connection , synchroniza-tion with UPS (SOC, SOH, behavior, external balancing)
- Long backup time with up to 8 optional EBM cabinets, with automatic detection
- Compact design: 2U UPS+ 2U EBM
- Rack/tower dual set-up with rotatable LCD panel
- USB, RS232 port, dry contacts, RPO & ROO connectors, optional SNMP/Modbus
- Built-in Ethernet port for cloud connection
- Maintenance bypass accessory with load segment control
- Certification and Standards: UPS:CE; Battery: UN38.3, UL1973, IEC62619



Typical application



Rear panel

6KS/10KS 1-1

EBM 192V

10KS 3-1

EBM 192V

Product specification

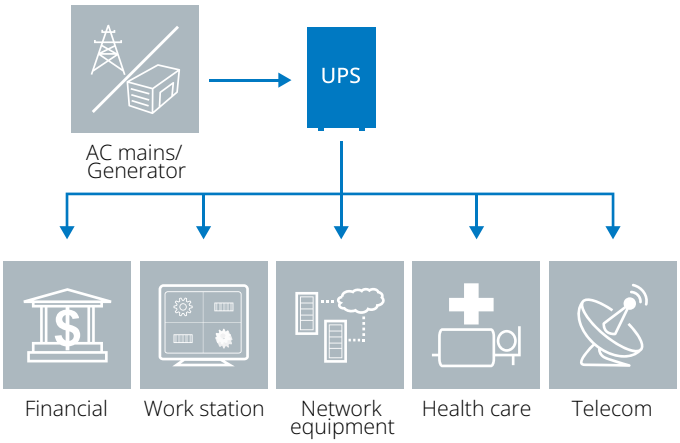
Model name		RT 6KS	RT 10KS	RT 10KS 3:1
Power rating	VA/Watt	6000VA/6000W	10000VA/10000W	10000VA/10000W
Efficiency	Double coversion mode	up to 95.3%		
	ECO mode	up to 98.7%		
Input performance	Rated voltage	208/220/230/240V		208/220/230/240V(1Phase input) 360/381/398/415V(3Phase input)
	Rated frequency	50Hz/60Hz		
	Voltage range	110Vac~276Vac		110Vac~275Vac(1Phase) 191Vac~476Vac(3Phase)
	Frequency range	40Hz-70Hz(45Hz-55Hz; 54Hz-66Hz @ load>60%)		
	PF	>0.99		>0.99 for 1 phase input; >0.95 for 3 phase input
	THDI	<3%		<3% for 1 phase input;<30% for 3 phase input
Input connection		Termianl block		
Output performance	Rated voltage	220V/230V/240V		
	Rated frequency	50Hz/60Hz		
	Maximum PF	PF = 1		
	Voltage accuracy	±1%		
	THDV	<1% linear load , <5% non linear load		
	Performance classification	VFI-SS-111		
	Transfer time	0ms(10ms @ ECO->Inverter)		
	Crest Ratio	Max 3:1		
	Overload	100%<load≤105% continuous. 105%< load ≤125% for 10 minutes. 125<load≤150% for 30 seconds. >150% for 500ms.		
Output connection	Wiring/socket	L/N/PE hardware terminnal connection		
	Load segment control	Optional (need MBP model)		
EBM	Dimension(W*D*H)MM	438 X 85.5 X 641.5		
	Voltage(V)	192V		
	Capacity(AH)	12AH		
	Material	Lithium-Ion (LiFePO4)		
Backup time (Full load)		17min for 1 EBM, 136min for 8 EBM	10 min for 1 EBM, 80 min for 8 EBM	
BMS		Yes		
External battery module(EBM) auto detection		Yes		
Maximum connect EBM quantity		8		
Battery replacement		Replace EBM(whole battery pack)		
EBM connector	Power/Signal	Socket/RJ45		
Charger	Charging current	2A/EBM, max 12A		
	Recharging time	4.5h to 90%		
Other working mode	CVCF	Yes (derating to 60% load)		
	Parallel	Optional (up to 3)		
HMI	Display	Dot matrix LCD, rotatable manually		
	Language	10 languages		
	USB	USB 2.0 with HID		
	RS232	Yes(DB9)		
	Dry in/out	1 programble dry in; 1 programble dry out		
	EPO	Yes		
	Intelignet slot	Yes		
	Network card	Optional		
	Modbus card	Optional		
	Dry contactor card	Optional		
	IOT	Yes		
	Monitor software	Winpower, Winpower View APP		
Physical performance	Dimension(W*D*H)MM	438*600.5*86.3(2U)		
	IP protection level	IP20		
Environment	Operating temperature	0-40^{0}C		
	Storage temperature	UPS: -25°C-55°C; UPS+EBM: -20°C-55°C		
	Relative Humidity	0-95%		
	Operating Altitude	0~3000m(the load derating 1 % every up 100m @1000~3000m)		
	Acoustic Noise	<50dB @ typical load with battery fully charged		
Certification	UPS	CE,IEC/EN 62040		
	EBM	PACK: IEC 62619; UL 1973; UN38.3; Cell: UL1973, IEC62619		
EMI	Conduction/Radiation	C3		
EMS	ESD	IEC/EN 61000-4-2		
	RS	IEC/EN 61000-4-3		
	EFT	IEC/EN 61000-4-4		
	Surge	IEC/EN 61000-4-5		

Innova Basic Tower LV 1-3K

Key features

- True double-conversion design with high adaptability to harsh mains conditions
- 1K/1KS/2K/2KS/3K/3KS various offer.
- Various battery configuration:1K 24V/36V, 2K 48VDC/72VDC, 3K 72VDC
- 0.9 output power factor with up to 12.5% more power offer than traditional 0.8pf.
- Optional EBM for flexible backup time configuration.
- Compact size requiring small installation space
- Programmable LCD display for quick UPS parameters configuration
- Various communication for easy management: RS232/USB, EPO, mini slot
- Certificates cTUVus, FCC

Typical application



Rear panel

Innova Tower 1K(S)-LV

Innova Tower 2K(S)-LV

Innova Tower 3K(S)-LV

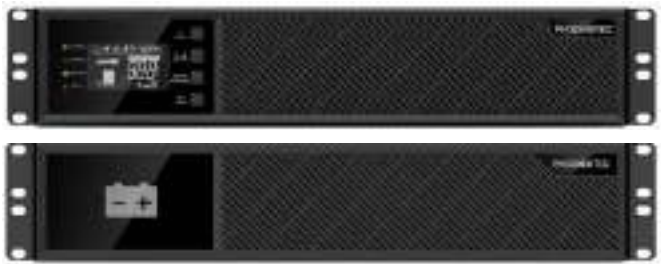
1. RS232
2. EPO/ROO
3. USB
4. Input circuit breaker
5. AC input
6. Intelligent card slot
7. External battery connector
8. Output terminal
9. Output fuse
10. Output terminal block

Product specification

MODEL	Product Line	Innova Basic Tower LV 1-3KVA UPS								
		1K	2K	3K	1K-P	1KS-P	2K-P	2KS-P	3K-P	3KS-P
CAPACITY	VA/W	1000VA/900W	2000VA/1800W	3000VA/2700W	1000VA/900W		2000VA/1800W		3000VA/2700W	
INPUT	Rated Voltage	110/115/120/125VAC,Default 120VAC			110/115/120/125VAC,Default 120VAC					
	Input Voltage Range	55~145VAC			55~145VAC					
	Frequency Range	40Hz-70Hz			40Hz-70Hz					
	Input Wiring	Single Phase with Ground			Single Phase with Ground					
OUTPUT	Output Power Factor	0.9			0.9					
	Nominal Output Voltage	110/115/120/125VAC,Default 120VAC			110/115/120/125VAC,Default 120VAC					
	Voltage Regulation	±1%			±1%					
	Frequency Range (Battery Mode)	50/60Hz ±0.05Hz			50/60Hz ±0.05Hz					
	Over Load	100%~105% continuous. 60Sec.@105%~130% Rated Load			100%~105% continuous. 60Sec.@105%~130% Rated Load					
	Voltage Distortion (THDv)	<2% @ linear load			<2% @ linear load					
	Output Waveform	Pure Sine Wave			Pure Sine Wave					
	Parallel Operation	N/A			N/A					
EFFICIENCY	Inverter Mode	88%	89%	90%	88%		89%		90%	
BATTERY	Battery Type	VRLA	VRLA	VRLA	VRLA	VRLA	VRLA	VRLA	VRLA	VRLA
	Battery	12V / 7Ah	12V / 7Ah	12V / 7Ah	12V / 7Ah	N/A	12V / 7Ah	N/A	12V / 9Ah	N/A
	Number of Internal Battery	2	4	6	3	N/A	6	N/A	6	N/A
	Rated Battery Voltage	24VDC	48VDC	72VDC	36VDC	36VDC	72VDC	72VDC	72VDC	72VDC
	Charging Current	1A	1A	1A	1A	4A	1A	4A	1A	4A
	Recharging time (90%)	5 hours	5 hours	5 hours	5 hours	N/A	5 hours	N/A	5 hours	N/A
TRANSFER TIME	Battery Mode <-> Inverter Mode	0ms			0ms					
	Inverter Mode <-> Bypass Mode	<4ms			<4ms					
	ECO Mode <-> Battery Mode	<10ms			<10ms					
DISPLAY		Segment LCD			Segment LCD					
AUDIBLE ALARM		Yes			Yes					
DIMENSION	W x H x D (mm)	144×224×325	190×323×368		144×224×325		190×323×368			
ENVIRONMENT	Operating Temperature	0~40 °C			0~40 °C					
	Regulation	cTUVus, FCC			cTUVus, FCC					
	Noise Level	<55dB (ISO 7779&At front 1m distance, without buzzer)			<55dB (ISO 7779&At front 1m distance, without buzzer)					
INTERFACE	RS232/USB	Yes			Yes					
	External Slot	Yes, for optional NMC Card/CMC Modbus Card/AS400 Card			Yes, for optional NMC Card/CMC Modbus Card/AS400 Card					
	Emergency Power Off	Yes			Yes					

* Due to continuous product improvement programs, specifications are subject to change without notice.

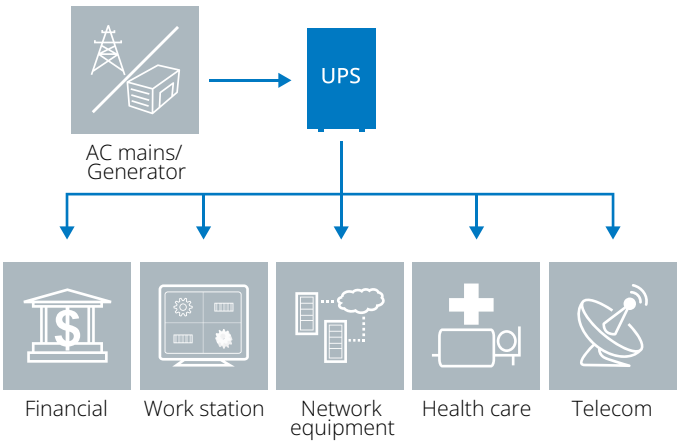
Innova Basic Rack LV 1-3K



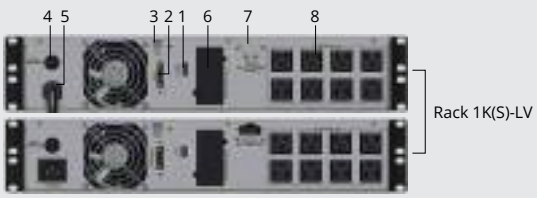
Key features

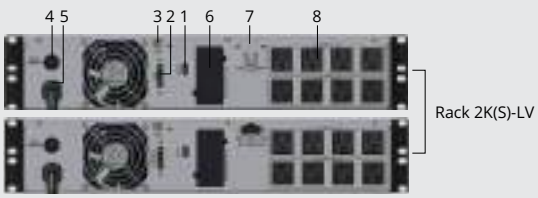
- True double-conversion design with high adaptability to harsh mains conditions
- 0.9 output power factor with up to 12.5% more power offer than traditional 0.8pf.
- 2U short depth compact size for space saving.
- Programmable LCD display for quick UPS parameters configuration
- Optional 2U EBM (Extended Battery Module) available for battery expansion
- Various communication for easy management: RS232/USB, EPO, mini slot
- Certificates cTUVus, FCC

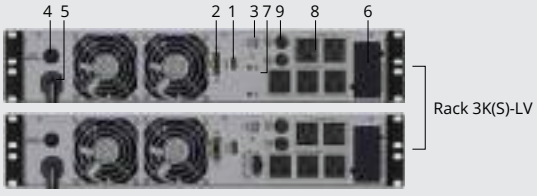
Typical application



Rear panel







1. RS232
2. EPO/ROO
3. USB
4. Input circuit breaker
5. Ac input
6. Intelligent card slot
7. External battery connector
8. Ac output
9. Output fuse

Product specification

MODEL	Product Line	Innova Basic Rack LV 1-3KVA UPS					
		1K	1KS	2K	2KS	3K	3KS
CAPACITY	VA/W	1000VA/900W		2000VA/1800W		3000VA/2700W	
INPUT	Rated Voltage	110/115/120/125VAC,Default 120VAC					
	Input Voltage Range	100 ~ 300 VAC					
	Frequency Range	45~55 Hz/54~66 Hz					
	Input Wiring	Single Phase with Ground					
OUTPUT	Output Power Factor	0.9					
	Nominal Output Voltage	110/115/120/125VAC,Default 120VAC					
	Voltage Regulation	±1%					
	Frequency Range (Battery Mode)	50/60Hz ±0.05Hz					
	Over Load	100%~105% continuous. 60Sec.@105%~130% Rated Load					
	Voltage Distortion (THDv)	<2% @ linear load					
	Output Waveform	Pure Sine Wave					
	Parallel Operation	N/A					
EFFICIENCY	Inverter Mode	88%		89%		90%	
BATTERY	Battery Type	VRLA	VRLA	VRLA	VRLA	VRLA	VRLA
	Battery	12V / 7Ah	N/A	12V / 7Ah	N/A	12V / 7Ah	N/A
	Number of Internal Battery	2	N/A	4	N/A	6	N/A
	Rated Battery Voltage	24VDC	36VDC	48VDC	72VDC	72VDC	72VDC
	Charging Current	1A	4A	1A	4A	1A	4A
	Recharging time (90%)	5 hours	N/A	5 hours	N/A	5 hours	N/A
TRANSFER TIME	Battery Mode <-> Inverter Mode	0ms					
	Inverter Mode <-> Bypass Mode	<4ms					
	ECO Mode <-> Battery Mode	<10ms					
DISPLAY		Segment LCD					
AUDIBLE ALARM		Yes					
DIMENSION	W x H x D (mm)	439x88×388				439x88×640	439x88×388
ENVIRONMENT	Operating Temperature	0~40 °C					
	Regulation	cTUVus, FCC					
	Noise Level	<55dB (ISO 7779&At front 1m distance, without buzzer)					
INTERFACE	RS232/USB	Yes					
	External Slot	Yes, for optional NMC Card/CMC Modbus Card/AS400 Card					
	Emergency Power Off	Yes					

* Due to continuous product improvement programs, specifications are subject to change without notice.

Innova Unity Tower LV 6-10K

Tower (6-10K) UPS

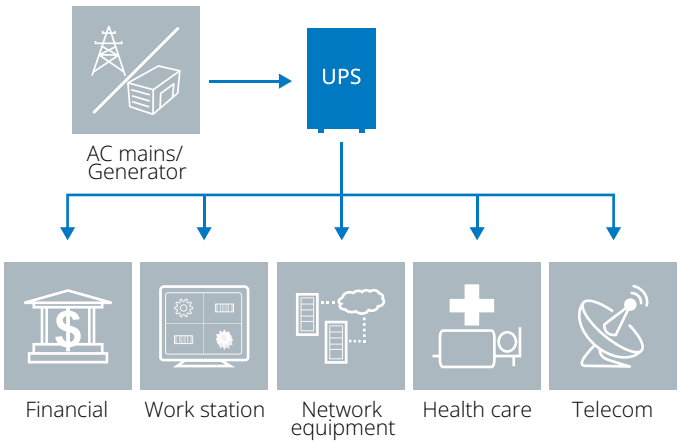
EBM

LCD

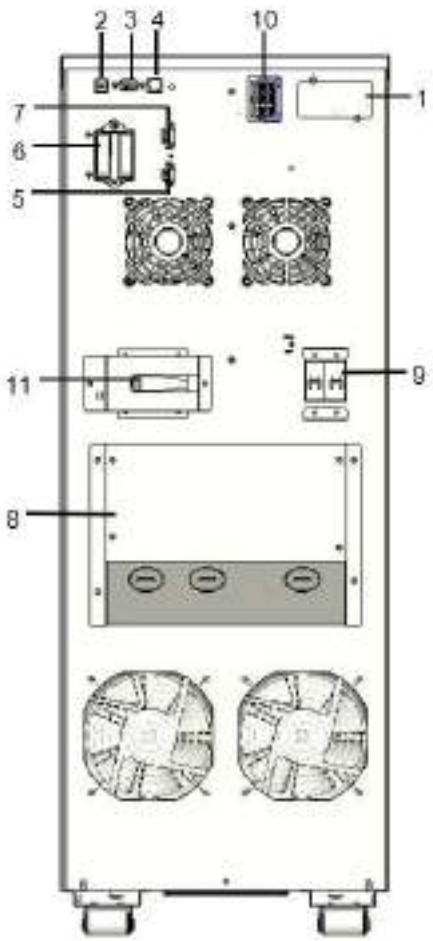
Key features

- True double-conversion design with high adaptability to harsh mains conditions
- PF=1(VA=W)
- High efficiency result in energy saving and supports energy-saving ECO mode
- Built-in OVCD protection, fan lock detection, over temperature detection, overload warning to enhance the product reliability
- USB HID enable monitoring on UPS without software installation
- Intelligent communication slot enables remote monitoring
- Parallel available with Parallel card (maximum 3)
- Support battery adjustment from 192VDC to 240VDC
- Support cTUVus with UL1778 and CE with EN62040

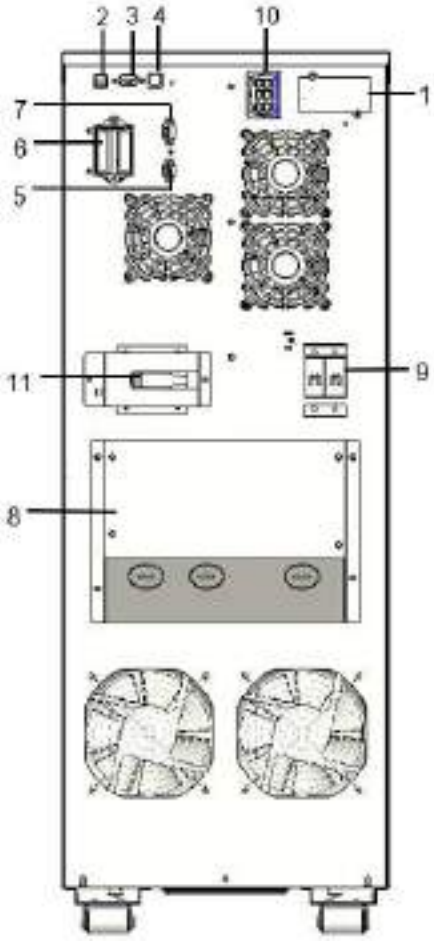
Typical application



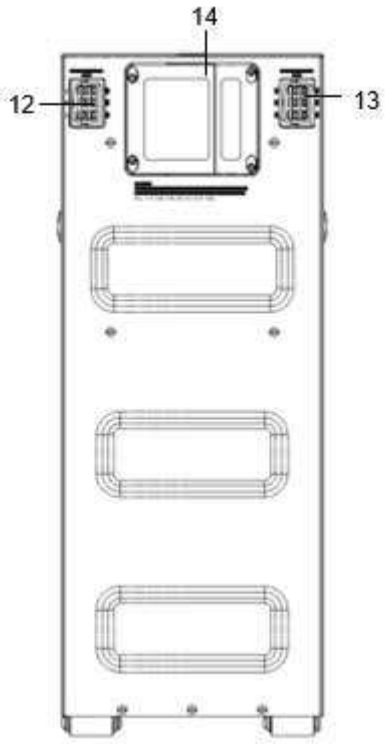
Rear panel



Tower 6K



Tower 10K



Tower EBM

1. INTELLIGENT SLOT (optional, default is no card inside, only cover and inside cable)
2. USB
3. RS232
4. NA
5. EPO
6. PARALLEL (optional, default is no card inside, only cover and inside cable)
7. DRY IN/OUT
8. Input /Output terminal
9. Input switch
10. External battery connector
11. Maintenance bypass switch (optional, default is Yes)
12. EBM connector
13. EBM connector
14. Fuse board cover (replace EBM fuse)

Product specification

Model		Innova Unity Tower LV 6K	Innova Unity Tower LV 10K
Power rating	VA/Watt	6000VA/6000W	10000VA/10000W
Efficiency	Double coversion mode	90%	
	ECO mode	93%	
Input	Voltage range	176-276V 100% load, 110-176V derating to 50% load linearly	
	Rated frequency	50Hz/60Hz	
	Frequency range	40 Hz~70 Hz <=60% rated load; 45 Hz– 55 Hz,54 Hz ~66 Hz >60% rated load	
	PF	>=0.99	
	THDI	<3.5% linear load, <5% non linear load	
Input connection	Wiring/socket	L1/L2/PE hardware terminnal connection	
Output performance	Rated voltage	208V/220V/230V/240V (ISO2 secondary in series) 110V×2/120V×2/115V×2 (ISO2 secondary in Parallel)	
	Rated frequency	50Hz/60Hz	
	Maximum PF	1	
	Voltage accuracy	± 2.5%	
	THDv	<2% Linear load; <8% Non Linear load	
	Transfer time	0ms (10ms @ ECO->Inverter)	
	Crest Ratio	max 3:1	
	Overload (line mode)	100%<load<=105% continuous; 105%<load<=125% for 10 minutes; 125<load<=150% for 30 seconds; load>150% for 0.5 seconds	
Output connection	Wiring/socket	L1/L2/L3/N/PE hardware terminnal connection	
Battery	Voltage	192VDC ~ 240VDC	
	Capacity (AH)	7Ah	9Ah
Charger	Maximum charging current	Default value: 1.4A; Range : 0~4A	Default value: 2A; Range : 0~4A
	Recharging time	3 hours to 90%	
Other working mode	CVCF	Yes (derating to 60% load)	
	Parallel	Optional (up to 3)	
HMI(human-machine interface)	Display	DOT matrix	
	USB	USB HID	
	RS232	Yes	
	EPO	Yes	
	Intelligent slot	Yes	
	Monitor software	Winpower	
Physical performance	Dimension (W*D*H)mm	300*633.2*805.5mm	
	Net Weight (KG)	100 (16pcs Bat)/108(20pcs Bat)	122 (16pcs Bat)/132 (20pcs Bat)
	IP protection level	IP20	

Product specification

Model		Innova Unity Tower LV 6K	Innova Unity Tower LV 10K
Environment	Operating temperature	0~40°C full load no derating 40~50°C output power derating to 50% load Charger current derating 50%	
	Relative Humidity	0-95%	
	Operating Altitude	Altitude <=1000m, no derating 3000m<=Altitude >1000m, the load should derating 1 % every up 100m	
	Acoustic Noise	<55dB @ typical load with battery fully harged	<55dB @ typical load with battery fully harged
Certification	certification/standard	cTUVus/UL1778, CE/EN62040	
EMI	Conduction/Radiation	IEC/EN 62040-2: 2006 Category C3	
EMS	ESD	IEC/EN 61000-4-2: 2005 Level 3	
	RS	IEC/EN 61000-4-3: 2006 Level 3	
	EFT	IEC/EN 61000-4-4: 2006 Level 4	
	Surge	IEC/EN 61000-4-5: 2005 Level 4	

* Due to continuous product improvement programs, specifications are subject to change without notice.

APUS II 20-200K

20-200K

Key features

- Output power factor 0.9
- Double conversion on-line topology
- Efficiency up to 94% in inverter mode
- Intelligent battery management
- Adjustable battery quantity
- Enhanced environmental adaptability design
- Compact footprint
- Parallel up to 4

Typical application

- Data center
- Telecom
- Financial services
- Security and surveillance system
- Automatic control system
- Building management
- Manufacturing process control
- Petro chemical industry

Product specification

Model	Innova APUS	20KS	30KS	40KS	60KS	80KS	100KS	120KS	160KS	200KS
Capacity	Power rating KVA	20	30	40	60	80	100	120	160	200
	Power rating KW	18	27	36	54	72	90	108	144	180
Input	Topology	PWM, IGBT based								
	Rated voltage	380Vac/220Vac (400/415Vac selectable)								
	Voltage range	-45% ~ +25%, depends on load percentage								
	Input power factor	0.99								
	THD(i)	<3%								
	Rated Frequency	50/60Hz auto sensing								
	Frequency range	42-72Hz								
Output	Power factor	0.9								
	Efficiency	Up to 94% in online mode; >98% in ECO mode								
	Output voltage	380Vac/220Vac +/- 1% (400/415Vac selectable)								
	Output frequency	50/60Hz								
	Overload Capacity	<105% continuous run; 105%-125% 10min; 150% 1min								
	THDV	<2% for Linear load								
	Unbalanced load	100%								
	Crest factor	3:1								
Bypass	Internal static switch	Standard								
	Bypass voltage	380Vac (+/- 15%)								
	Maintenance bypass switch	Standard								
Battery	Battery type	VRLA, lithium battery								
	Backup time	Varies from battery capacity and load situation								
	Battery PCS	20KS/30KS/40KS/60KS/80KS: 28-36 PCS adjustable, 32 PCS as default 100KS/120KS/160KS/200KS: 36-40 PCS adjustable, 40 PCS default								
	Recharge time	8 hours to 90%								
Communication	Interface	RS232, USB, 2 Com slots, 3 Building alarm, EPO								
	Com cards (optional)	SNMP/WEB, Modbus/Ethernet, AS400, NMC								
Environment	Running temperature	UPS:0-40°C; Battery: 25°C								
	Storage	-25 ~ 55°C without battery; +15 ~ 25°C with battery								
	Humidity	5% ~ 95%								
	Elevation	No derating < 1000m								
	Noise level	20kVA≤55 dBA@1 meter front side; 30-40kVA≤62 dBA@1 meter front side; 60-120kVA≤65 dBA@1 meter front side;160-200kVA≤70 dBA@1 meter front side								
Dimension	W*D*H (mm)	420*715*900			600*720*1200		600*800*1876		600*830*1876	
Regulation	Safety	IEC/EN 62040-1								
	EMC	IEC/EN 62040-2								
	Performance	IEC/EN 62040-3								
	Quality	ISO90001, ISO14001								
	Certification	CE								

* Due to continuous product improvement programs, specifications are subject to change without notice.

APUS III 20-80K

20KS/30KS/40KS

60KS/80KS

20/30/40K STD (with internal bat)

60/80K STD (with internal bat)

Key features

- Three-step IGBT PWM control technology, online mode efficiency up to 96%, ECO mode efficiency up to 99%.
- Output power factor 1, provides more active power.
- Higher density reduces up to 50% of the footprint.
- Powerful charger declines the charging time dramatically.
- Predictable component lifetime enhances system reliability.
- Optimized battery management (OBM) technology, extended batteries life by 50%.
- Battery 32-44 adjustment provides a more flexible battery configuration (20-80KS)
- A 5-inch color touch LCD with 10 languages provides a userfriendly interface for operation.
- Robust design with default dust-proof filter &PCBA coating.
- Standard 3.5mins backup time @100% load (20-80K STD)
- Easy slide & maintenance battery module (20-80K STD)
- Up to 4 EBCs connection for longer backup time configuration (for 20-80KS long run model)
- Pre-install battery and without pre-install battery options for flexible configuration and stock management

Typical application

- Data center
- Telecom
- Financial services
- Security and surveillance system
- Automatic control system
- Building management
- Manufacturing process control
- Petro chemical industry

Convenient operation and maintenance management

Full-color 5" touch screen with a cool LED status indicator, which is convenient for users to check the running status of the equipment and operation and maintenance operations.

Product specification

Model	APUS III	20kVA	30kVA	40kVA	60kVA	80kVA
Capacity	Power rating KVA	20	30	40	60	80
	Power rating KW	20	30	40	60	80
Input	Topology	PWM, IGBT based				
	Rated voltage	230/400Vac nominal (220/380, 240/415 Selectable)				
	Voltage range	-50% ~ +20%, depends on load percentage				
	Input power factor	0.99				
	THD(i)	<3%				
	Rated Frequency	50/60Hz auto sensing				
	Frequency range	42-72Hz				
Output	Output Tranformer	Default				
	Power factor	1				
	Efficiency	Up to 96% in online mode; >99% in ECO mode				
	Output voltage	230/400Vac nominal (220/380, 240/415 Selectable)				
	Output frequency	50/60Hz				
	Overload Capacity	20KS-80KS model: 102–110% load 60 min, 111–125% load 10min, 126–150% load 1min, >150% load 150msec 20-80K battery kit model: depends on battery configuration. 20-80K STD internal battery model: depends on battery configuration.				
	THDV	<2% for Linear load				
	Unbalanced load	100%				
Bypass	internal static switch	Standard				
	Bypass voltage	400Vac (+/- 15%)				
	Maintenance bypass switch	Standard				
Battery	Battery type	20KS-80KS model: VRLA/NiCd/Lithium. 20-80K battery kit model: VRLA. 20-80K STD internal battery model: VRLA.				
	Backup time	20KS-80KS model: Varies from battery capacity and load situation 20-80K battery kit model: depends on battery configuration. 20-80K STD internal battery model: 3.5mins @ 100% load.				
	Battery	20KS-80KS model: depends on battery configuration. 20-80K battery kit model: 20-40k: up to 2*40 7Ah/8Ah/9Ah max 60-80k: up to 4*40 7Ah/8Ah/9Ah max 20-80K STD internal battery model: 20k: 1*40*8Ah 30k: 2*32*8Ah 40k : 2*40*8Ah 60k: 3*40*8Ah 80k: 4*40*8Ah				
	Charger current	20A/30A/40A/60A/80A max.				
	Battery Voltage	20KS-80KS model: 432VDC default,320V-607V 20-80K STD internal battery model and battery kit model: 320V-552V				
	Recharge time	8 hours to 90%				
Communication	Interface	2x Intelligent-Slot, 1x Emergency Power Off input , 3x Building Alarm inputs, 1x RS-232,1x USB				
	Com cards (optional)	NMC & CMC cards, relay card, EMP				
Dimension	Running temperature	UPS:0-40°C; Battery: 25°C				
	Storage	-25 ~ 55°C without battery; +15 ~ 25°C with battery				
	Humidity	5% ~ 95%				
	Elevation	No derating < 2000m				
	Noise level	<=65dBA at 1m @ 75% Load (ISO7779)				
	W*D*H (mm)	20KS-80KS model: 20k/30k/40k 330*699*521mm; 60k/80k 330*773*972mm 20-80K battery kit model and STD internal battery model: 20k/30k/40k: 500*859*887mm 60k/80k :500*846*1500mm				
Regulation	Safety	IEC/EN 62040-1				
	EMC	IEC/EN 62040-2				
	Performance	IEC/EN 62040-3				
	Certification	CE				

Initial Spec. Due to continuous product improvement, specifications are subject to change without notice.

Gripower Pro 25-200K

25-200K

Key features

- Output power factor 1.0
- Double conversion on-line technology
- Three-level bridge IGBT PWM control
- 99% efficiency in ECO mode, 96% efficiency in double conversion mode
- 25~200kVA per frame
- Parallel up to 4 frames and 800kVA
- Optimized battery management
- Adjustable battery quantity
- High flexibility and expandability

Typical application

- Data center
- Telecom
- Financial services
- Security and surveillance system
- Automatic control system
- Building management
- Manufacturing process control
- Petro Chemical Industry

Advanced modular design

Gripower Pro applies complete modularization with easy plug/play designs, system rack, UPS, communication, display modules and optional power distribution panels, smarts cards and etc.. allows for complete adherence to a customer's requirement. Each UPS module has a completely functional 25kVA UPS, optimized parallel control technology and smart communication protocols, allowing the UPS, communication and display module to realized online maintenance that will not affect its daily operations. New modules can also be added to the system without need for calibration. Maintenance and expansion can be easily achieved.

75kVA cabinet

75kVA with internal battery cabinet

200kVA Cabinet

The Gripower Pro 25kW UPM
(Uninterruptible Power Module)

Battery Module

Leading parallel technology

Gripower Pro also supports parallel system connection that allows a maximum capacity of up to 800kVA. Parallel system connection uses the same set of batteries, allowing flexibility to effectively use an existing battery system and allow for single removal of faulty battery set.

Dimensions and Weights

Description		Shipping dimensions (WxDxH)	Cabinet dimensions (WxDxH)	Shipping weight	Installed weight
75kVA	Without Battery Cabinet	900 × 1300 × 2200 mm	600 x 1100 × 2020 mm	372 kg	262 kg
	With Battery Cabinet	900 × 1300 × 2200 mm	600 x 1100 × 2020 mm	446 kg	336 kg
200kVA Cabinet		880 × 1160 × 2210 mm	603 x 1013 x 2050 mm	425 kg	368 kg
UPM		590 × 790 × 270 mm	439 × 595 x 130 mm	31.5 kg	27.5 kg
Battery Module		227 x 1114 x 277 mm	107 × 900 × 156 mm	33 kg	31 kg

Technical Specifications

Gripower Pro 25-200kVA

Gerneral	
UPS output power rating	25-200kVA, 1.0pf
Efficiency in double conversion mode	>96%
Efficiency in Energy Saver System	>99%
Topology	Double conversion on-line technology, three-level bridge IGBT PWM control
External paralleling	up to 4 units
Noise @1m, 25°C	< 70 dBA in double conversion
UPS topology	Double conversion
Dimensions(WxDxH)mm	600mm x 1100mm x 2020mm (75kVA Frame) 603mm x 1013mm x 2050mm (200kVA Frame)
Degree of protection	IP20
Altitude (max)	1000m above sea level at 40°C
Input	
Input wiring	3ph + N + PE
Rated input voltage	220/380, 230/400, 240/415 V
Rated input frequency	50 or 60 Hz, user configurable
Frequency tolerance	40 to 72 Hz
Input power factor at 100% load	0.99
Input THD	<3%
Soft start capability	Yes
Battery	
Battery type	VRLA/Lithium.
Charging method	Optimized Battery Management or Continuous Float charging
Battery quantity	36 to 42 blocks. Default is 40 blocks
Battery start capability	Yes

* Display panel supports English, French, Portuguese, Spanish and Russian

Output	
Output wiring	3ph + N + PE
Rated output voltage rating	220/380, 230/400, 240/415 50/60 Hz
Output THD	<1% (100% linear load); <5% (100% non-linear load)
Permitted load power factor	0.8 lagging to 0.8 leading
Overload on inverter*	10 min 125%
Overload on bypass	Continuous < 115%, 10 ms 1000%

* @35°C

Accessories
Connectivity card (NMC & CMC cards, relay card, EMP)

Communications	
Intelligent Slot	3 communication Slots
Serial ports	Built-in host and device USB
Standard connectivity ports	5 building alarm inputs and a dedicated EPO

Compliance with standards	
Safety	IEC 62040-1
EMC	IEC 62040-2
Performance	IEC 62040-3
RoHS	EU directive 2011/65/EU

* Due to continuous product improvement programs, speci cations are subject to change without notice.

Micro Data Center

Introduction

Phoenixtec Micro Data Center is a new-generation edge data center solution, which integrate the UPS, PDU, cooling, monitoring, system connection, remote and distributed management in one system.

It is pre-tested, pre-installed, and pre-commissioning before delivery, enabling quick deployment on site.

The remote web-based monitoring function enables remote O&M for a single site. The on-site set up can be applied even at remote or distributed locations.

Application scenario

Financial Institutions
Branches and business locations

Commercial
Chain Store/Branch office

Government / Education
Server/Computer Rooms

Medical
Hospital IT departments

Industrial
Small Factories

Telecom
Relay stations

Features & value

Simple

- Standardized design with configurable options tailored to your needs, provides for easier future expansion and scalability
- Pre-configuration saves more than 65% time on on-site installation compared to conventional solutions
- 1-hour fast installation for single rack
- Centralized monitoring system with a single interface to easily manage your infrastructure

Green

- Prefabrication and modular construction saves on-site installation cost
- In-rack cooling system eliminates the need for room-level cooling system and cooling loss thus reducing total infrastructure costs
- Saves electricity bills with PUE as low as 1.34
- Unified system saves communication cost

Reliable

- Reliable dehumidification at low load to avoid condensation in the data center
- Complies with industry standard / certification to ensure a safe and reliable system
- Supports multiple configurations of single unit, N+1 redundancy, 2N redundancy
- Centralized monitoring system to ensure the reliability

SECURE RACK

- IP50 protection, earthquake rated
- Can bear 20% higher load than other brands
- Glass front door + metal rear door
- Intelligent Electrical door lock and release

PREFAB POWER DISTRIBUTION

- Infrastructure devices in the cabinet are factory preinstalled and wiring
- Intelligent PDM to tracking the load and PUE
- Lighting

POWER PROTECTION

- High efficiency UPS (3-10kVA) provides best in class protection for all your critical applications

INTELLIGENT MANAGEMENT

- SNMP connectivity
- Remotely manage via internet Web or phone APP
- 10.1" Touch LCD provides information and control at your fingertips
- Cybersecurity passed

DYNAMIC MONITORING

- Built in sensors track environmental parameters and provides timely alerts
- Temp and humidity sensors to track environment status
- Smoke and water leak sensors to prevent any environment risk
- Status lighting system – 3 colors

PRECISION COOLING

- CE certified in-rack air-conditioning circulates air quickly due to proximity to heat sources.
- R410A environment friendly refrigerant
- Have Split and Self-contained option.
- Compatible for both Gravity drain and condensate pump

Product specification

	Typical configuration 1	Typical configuration 2	Typical configuration 3
	Standard Single Rack	Standard Single Rack	Standard Single Rack
Unit model	PMSS6K3E	PMSS6K4S	PMSS10K4S
Power input	220V/1P	220V/1P	380/400/415Vac, 50/60Hz, 3Ph+N+PE
Recommended IT load	3kW	3.5kW	3.5kW
Available U space	26U	29U	25U
PUE (optimized value*)	1.4	1.34	1.34
System Size (W*D*H)	600*1200*2000	600*1200*2000	600*1200*2000
system protection class	IP50	IP50	IP50
Rack and Enclosure system			
Enclosure type	Fully encolsed Hot and Cold Aisles(Glass front door plus sold sheetmetal rear door		
Rack Size(W*D*H)*	600*1200*2000	600*1200*2000	600*1200*2000
Rack QTY	1	1	1
Door lock	Electronic lock	Electronic lock	Electronic lock
Seismic level	Level 8	Level 8	Level 8
LED lighting included	Yes	Yes	Yes
atmosphere lights (3 colors)	Yes	Yes	Yes
UPS and power distribution system			
UPS configuration	1x 6kva	1x 6kva	1x 10kva
UPS model	Unity IoT RT 6K	Unity IoT RT 6K	Unity IoT RT 10K
UPS efficiency	95%	95%	95%
EBM included	1 EBM as standard	1 EBM as standard	1 EBM as standard
Power meter included	Yes	Yes	Yes
lightning protection	C grade	C grade	C grade
PDU type	Basic as standard metered/switched as optional	Basic as standard metered/switched as optional	Basic as standard metered/switched as optional
PDU QTY	Standard: 1pcs/rack	Standard: 1pcs/rack	Standard: 1pcs/rack
PDU outlets	20*C13+4 *C19	20*C13+4 *C19	20*C13+4 *C19
PDU Certificates	CE	CE	CE
ATS/STS included	No-optional	No-optional	No-optional
Cooling system			
Cooling type	self-contained DX	split DX	split DX
Input Voltage/Freqency	200-240V/50~60Hz	200-240V/50~60Hz	200-240V/50~60Hz
Cooling capacity	3.5kw	4.2kW	4.2kW
Air volume	800m^3/h	800m^3/h	800m^3/h
Form Factor in total	8U	5U	5U
Refrigerant type	R410a	R410a	R410a
Condensate Pump included	N/A	Yes	Yes
Pump lift-m (if yes)	N/A	5	5
Evaporative kit	Yes	NA	NA
Monitoring system			
User interface	10.1 inch touch screen		
Connectivity	SNMP/HTTP	SNMP/HTTP	SNMP/HTTP
Remote monitoring	PC end, Mobile APP		
Smoke sensor included	1	1	1
water leakage sensor included	1x rope type(5m)	1x rope type(5m)	1x rope type(5m)
Temp/Humidity sensor	1	1	1
Emergency plan (fire/high temp)	Pop-up Door	Pop-up Door	Pop-up Door
Camrea support	Yes	Yes	Yes
Certificates	CE-UPS/cooling Cybersecurity Rack-Seismic 8 level	CE-UPS/cooling Cybersecurity Rack-Seismic 8 level	CE-UPS/cooling Cybersecurity Rack-Seismic 8 level

* 600mm width by default and 800mm optional
* Due to continuous product improvement programs, specifications are subject to change without notice.

PH-TEC™ Battery PH12-7 / PH12-9

PH12-7

PH12-9

Product features

PH-TEC™ Battery uses high magnification lead paste formulations and high corrosion resistant alloy multi-grid, and special exhaust structure and sealing technology. It has many excellent features like high discharge capacity, long life, safe and reliable, very low self-discharge rate, flexible installation, convenient maintenance etc.

Applications

For Network connection equipment, power system, UPS, power station systems, railway and marine systems.

CE | MH65343 | ISO14001 | ISO9001

Product specification

		PH12-7	PH12-9
Nominal Voltage		12V	12V
Nominal Capacity (20HR, 1.80V/cell)		7.0 Ah	9.0 Ah
Dimension	Length	151mm (5.94 in.)	151mm (5.95 in.)
	Width	65mm (2.56 in.)	65mm (2.56 in.)
	Total Height (with Terminal)	99.5mm (3.92 in.)	99.5mm (3.92 in.)
Approx Weight		2.18 Kg (4.81 lbs)	2.50 Kg (5.51 lbs)
Terminal		T2	T2
Container Material		ABS (UL94, HB)	ABS (UL94, HB)
Max. Discharge Current		105A (5s)	127.5A (5s)
Internal Resistance		≤ 26mΩ	≤ 20mΩ
Operating Temp. Range	Discharge	-20°C ~ 55°C (-4°F ~ 131°F)	-20°C ~ 55°C (-4°F ~ 131°F)
	Charge	-20°C ~ 40°C (-4°F ~ 104°F)	-20°C ~ 40°C (-4°F ~ 104°F)
	Storage	-15°C ~ 50°C (5°F ~ 122°F)	-15°C ~ 50°C (5°F ~ 122°F)
Standby Use (25°C)	Charging Current	≤ 2.1A	≤ 2.7A
	Charging Voltage	13.5V ~ 13.8V	13.5V ~ 13.8V
	Temp. Coefficient	-3mV/cell/°C	-3mV/cell/°C
Cycle Use (25°C)	Charging Current	≤ 2.1A	≤ 2.7A
	Charging Voltage	14.4V ~ 15.0V	14.4V ~ 15.0V
	Temp. Coefficient	-5mV/cell/°C	-5mV/cell/°C
Self Discharge		≤ 3% per month at 25°C	≤ 3% per month at 25°C

* Due to continuous product improvement programs, specifications are subject to change without notice.

PH-TEC™ Battery PH12V series (18-200AH)

Product introduction

PH-TEC™ battery PH12V series batteries adopt unique and advanced technology and production processes. They are being designed with more focus on compatibility with UPS and system optimization. Compared to other batteries on the market, PH12V series batteries can provide longer float charging life time and more powerful discharging characteristics. It is an ideal product for UPS backup application.

Applications

UPS, Telecom, Security Standby Power Supply, Medical Instruments, and so on.

Product features

Long-life Design

The advanced grid manufacturing technology leads to a highly improved grid corrosion resistance. The battery design life is up to 10 years at floating condition.

Excellent High Rate Discharge Performance

Due to a special plate design and a terminal design, together with an advanced formulation and a welding process, the high rate discharge performance is significantly increased with the ensuring of enough battery capacity.

Flame Retardant

The battery containers and lids are manufactured with UL94-VO level frame retardant ABS materials.

Low Self-discharge Rate

Battery self-discharge rate is less than 3% at 25°C after 28 days.

High Consistency

Thanks to the automatic production process and the resulting high productivity, Phoenixtec batteries have good performance in plate and battery consistency. They are more suitable for being used in series in UPS application.

Best Compatibility With UPS

The product design work was done to achieve a perfect combination with UPS and whole system cost optimization.

Convenient Installation And Maintenance

The embedded terminal design makes the installation and maintenance work simple and convenient. It also increases the high current trafficability performance.

Product specification

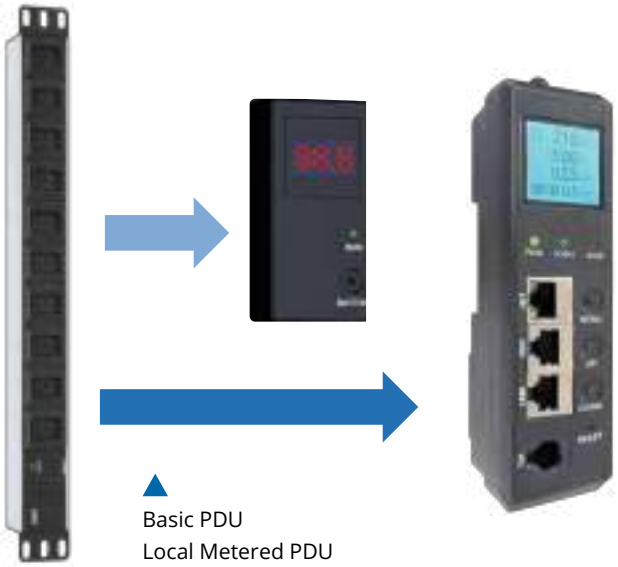
Item No.	Voltage (V)	Capacity /Ah (C20@25°C)	W/cell 1.67V@15min	Internal Resistance (m Ω)	Dimensions (mm)				Weight (Kg)	Terminal
					L	W	H	TH		
PH12-18	12	18	61.7	16.2	181.5	77	167.5	167.5	5.4	T3/M5
PH12-26	12	26	89.1	14	166	175	133	133	7.8	M5
PH12-38	12	38	123	9	197	165	170	170	11.4	M6
PH12-65	12	65	210	6.5	325	167	174	174	19.2	M6
PH12-100	12	100	324	4	330	173	213	219	28.0	M8
PH12-120	12	120	336	4	408	177	225	225	32.3	M8
PH12-150	12	150	420	3.5	483	170	238.5	238.5	41.5	M8
PH12-200	12	200	647	2.7	522	240	218	224	57.1	M8

MH65343 ISO9001 ISO14001

Battery characteristics

Design life	Up to 10 years in standby service (25°C)
Operating Temperature Range	Charge: -20°C ~ 40°C Discharging: -20°C ~ 55°C Storage: -15°C ~ 50°C
Capacity Affected by Temperature	103% C_{20}@40°C 100% C_{20}@25°C 86% C_{20}@0°C
Float Charging Voltage	13.5V - 13.8V (Recommend 13.6V)
Equalizing Charging Voltage	14.1V - 14.4V (Recommend 14.1V)
Float Charging Temp. Coefficient	-18mV/ °C
Recycling Usage Temp. Coefficient	-30mV/ °C
Max. Charging Current	0.25CA
Max AC ripple (charger)	Less than 2%
Monthly Self Discharge Rate	Less than 3% (25°C)

PDU



▲
Basic PDU
Local Metered PDU
Network Metered PDU

Key features

- Modular chassis design allow easy configuration and lower cost
- International plug and outlets options
- Light weight design
- Tool less mouting
- Hot swap network metered modules
- Remote access via network metered
- IEC plug locking outlets

Typical application

- Data Center
- IT Cabinet

Product specification

Item	Parameter	Specification
Input	Input Voltage / Frequency	110 / 230 VAC / 380 VAC : 50 / 60 Hz
	Max. Load Current	10A / 16A / 32A
	Power Cable Length	3 meters
	Input Plug	International: IEC60320 C14 (10A), C20 (16A), IEC60309 2P+E Plug (32A) National: AS / NZS 3112-10A (10A, 1P), AS / NZS 3112-15A (15A, 1P) Clipsal (15A, 3P), Clipsal (32A, 3P)
	Protection (Optional)	16A Air Circuit Breaker, Surge Protector
Output	Rated output voltage	110 / 220 VAC
	Max. Load Current	10A / 16A / 32A
	Socket Types	International: IEC320 C13, IEC320 C19C13 (locking & unlocking) National: AS / NZS-10A, AS / NZS-15A
Display	Network Meter	Hot-swap LED or LCD display shows real-time current / voltage / IP address
Chassis	Material	Aluminum chassis, plastic front cover
	Color	Black
	Mounting	Flange-mounting brackets + Toolless mounting buttons
Environmental Ratings	Operating	Temp: 0 to 45°C, Humidity: 0 to 95%
	Storage	Temp: -10 to 60°C, Humidity: 0 to 95%
Monitoring	Metering	Total Load Current(A), Input Voltage (V), Power (kW), Energy Consumption (kWh), enclosure temperature / humidity via external sensor
	Metering Accuracy	1% (billing-grade)
	Set-up Configuration	Max. Load Current, email Alarm, HTTP, SNMP v1, v3, IP, Gateway, DNS, Subnet Mask, MODBUS (optional)
	Alarm Options	Audible buzzer, email, SNMP v1, v3
	Remote / Web access	Web based (IE, Fire Fox, Chrome, Safari), SNMP v1, v3, Serial (optional) Remote access via TCP / IP and built-in 10 / 100M bit Ethernet port
	Network Protocol	TCP / IP, PPP, UDP, HTTP, TELNET, SMTP
	Password	Username and password configurable
Certifications		CE
Warranty		1 Year

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