



توسعه فناوری ادیب
A D I B C O R P

UNINTERRUPTABLE POWER SUPPLY

WWW.ADIBCORP.COM



BLAZER

400 VA ~ 2000 VA

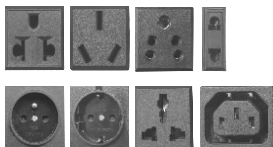


Features

- LED display or LCD display selectable
- Microprocessor-based digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Wide input voltage range
- Power-on self test
- Cold start
- Auto restart when mains power is restored
- Auto track mains phase to ensure that inverter output voltage has same phase with utility voltage, reducing transfer time and peak surge
- Intelligent battery management: battery temperature compensation to extend the battery life; three-stage charging to shorten recharge time
- Short circuit, battery overcharge / overdischarge, overload, surge protections
- Automatic charging in OFF mode
- Optional no-load shutdown
- Optional RS232 / USB communication port and RJ11 / RJ45 protection
- Unattended safety shutdown: system alarm and auto Power-On / Off by RS232 or USB interface communicating with PC

Rear Panel

1. Output Socket (selectable)
2. TEL/Modem/Fax surge protection (optional)
3. USB (optional)
4. AC Input
5. Fuse



Optional sockets



400 VA ~ 800 VA

1200 VA ~ 1500 VA

1500 VA ~ 2000 VA

Specifications

MODEL		blazer 400	blazer 600	blazer800	blazer1200	blazer1500	blazer2000
Capacity		400 VA 240 W	600 VA 360 W	800 VA 480 W	1200 VA 720 W	1500 VA 900 W	2000 VA 1200 W
INPUT							
Voltage		100 V / 110 V / 120 V: 80 ~ 150 Vac; 220 V / 230 V / 240 V: 162 ~ 295 Vac (220 V: 145 ~ 295 Vac optional)					
Frequency		50 / 60 Hz ± 10% (auto-sense)					
OUTPUT							
Voltage		100 V / 110 V / 120 Vac ± 10% or 220 V / 230 V / 240 Vac ± 10%					
Frequency		50 / 60 Hz ± 1% (auto-sense)					
Waveform		Mains mode: pure sine wave; Battery mode: simulated sine wave					
Transfer time		2 ~ 7 ms (typical), 10 ms (max.)					
BATTERIES							
DC voltage		12 V			24 V		
Configuration		12 V / 4.5 Ah×1	12 V / 7.0 Ah×1	12 V / 8.0 Ah×1	12 V / 7.0 Ah×2	12 V / 8.0 Ah×2	12 V / 9.0 Ah×2
Recharge time		6 ~ 8 h					
OTHERS							
Protections		Short circuit - battery overcharge - overdischarge - overload - surge					
USB / RS232 / SNMP (optional)		Support Windows 98 / 2000 [®] / 2003 / XP / Vista / 2008 / Windows 7 [®] / 8 / 10					
Humidity		20 ~ 90% RH @ 0 ~ 40℃ (non-condensing)					
Noise level		≤ 45 dB (1 m)					
Plastic case	Net / Gross weight (kg)	3.7 / 4.0	4.3 / 4.6	5.2 / 5.5	8.6 / 9.0	10.1 / 10.5	/
	Dimensions (W × D × H) (mm)	100 × 290 × 140			140 × 345 × 170		/
	Packaged dimensions (W × D × H) (mm)	139 × 335 × 210			198 × 406 × 245		/
	Quantity / 20 ft	2300 pcs			1000 pcs		/
Metal case	Net / Gross weight (kg)	/	5.1 / 5.4	6.3 / 6.6	9.6 / 10.1	11.3 / 11.7	12.9 / 13.3
	Dimensions (W × D × H) (mm)	/	95 × 320 × 160		125 × 320 × 225		125 × 380 × 225
	Packaged dimensions (W × D × H) (mm)	/	145 × 375 × 230		180 × 390 × 295		180 × 450 × 295
	Quantity / 20 ft	/	2000 pcs			1000 pcs	
Rack mount	Net / Gross weight (kg)	/	7.0 / 7.5	8.2 / 8.7	11.6 / 12.1	13.3 / 13.8	14.9 / 15.4
	Dimensions (W × D × H) (mm)	/	308 × 438 × 88		308 × 438 × 132		
	Packaged dimensions (W × D × H) (mm)	/	395 × 525 × 185		395 × 525 × 225		

●All specifications subject to change without notice.

●Custom-made specifications are acceptable.

BLAZER

600 VA ~ 800 VA

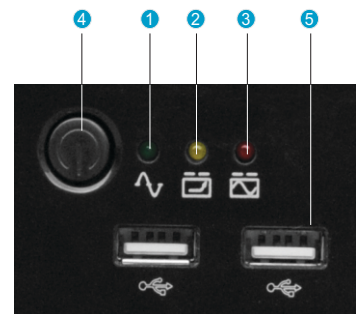


Features

- Microprocessor-based digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Wide input voltage range
- Power-on self test
- Cold start
- Auto restart when mains power is restored
- Auto track mains phase to ensure that inverter output voltage has same phase with utility voltage, reducing transfer time and peak surge
- Intelligent battery management: battery temperature compensation to extend the battery life; three-stage charging to shorten recharge time
- Short circuit, battery overcharge / overdischarge, overload, surge protections
- Automatic charging in OFF mode
- 2 USB charger with 5 V / 1 A output (6 Schuko outlets model only)
- Optional RS232 / USB communication port and RJ11 port

Control panel

1. AC Normal Indicator (green)
2. Battery Charging Indicator (amber)
3. Back-up Indicator (red)
4. On / Off button
5. USB charger (optional)



Rear Panel

1. UPS output with surge protection
2. Bypass output with surge protection
3. AC Input
4. USB (optional)
5. RS232 (optional)
6. RJ11 (optional)

Specifications

MODEL	blazer 600	blazer 2800
Capacity	600 VA / 360 W	800 VA / 480 W
INPUT		
Voltage	100 V / 110 V / 120 V: 80 ~ 150 Vac; 220 V / 230 V / 240 V: 162 ~ 295 Vac (220 V: 145 ~ 295 Vac optional)	
Frequency	50 / 60 Hz ± 10% (auto-sense)	
OUTPUT		
Voltage	100 V / 110 V / 120 Vac ± 10% or 220 V / 230 V / 240 Vac ± 10%	
Frequency	50 / 60 Hz ± 1% (auto-sense)	
Waveform	Mains mode: pure sine wave; battery mode: simulated sine wave	
Transfer time	Typical 2 ~ 7 ms; Max.10 ms	
BATTERIES		
DC voltage	12 V	
Configuration	12 V / 7.0 Ah×1	12 V / 8.0 Ah×1
Recharge time	6 ~ 8 h	
COMMUNICATIONS		
USB / RS232 / SNMP (optional)	Supports Windows 98 / 2000 / 2003 / XP / Vista / 2008 / 7 / 8 / 10	
OTHERS		
Protections	Short circuit - battery overcharge - overdischarge - overload - surge	
Humidity	20 ~ 90% RH @ 0 ~ 40℃ (non-condensing)	
Noise level	≤ 45 dB (1 m)	
Net / Gross weight (kg)	4.5 / 5.0	5.6 / 6.0
Dimensions (W × D × H) (mm)	185×280×95	
Packaged dimensions (W × D × H) (mm)	145×333×238	
Quantity / 20 ft	2400 pcs	

- All specifications subject to change without notice.
- Custom-made specifications are acceptable.

TRUST PLUS

500 VA ~ 3000 VA

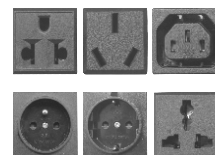


Features

- Pure sine wave output
- DSP digital control
- Boost and buck AVR for voltage stabilization
- Auto sensing frequency
- Adjustable charging current and battery shutdown point
- Settable ECO mode and no-load shutdown
- Humanized alarm system
- Power-on self test
- Cold start
- Auto restart when mains power is restored
- Intelligent battery management
- Short circuit and overload protection
- Automatic charging in OFF mode
- USB & RJ45, AS400 / SNMP (optional) communication port

Rear Panel

1. USB / RJ45
2. Output Sockets
3. EXT Battery (optional)
4. AC Breaker
5. Input
6. SNMP (optional)
7. Fan



Optional sockets



Specifications

MODEL		trust 500	trust 1000	trust 1500	trust 2000	trust 3000
Capacity		500 VA / 300 W	1000 VA / 800 W	1500 VA / 1200 W	2000 VA / 1600 W	3000 VA / 2400 W
DC INPUT						
Rated voltage		12 V	24 V		36 V (S) 48 V (H)	48 V
DC input range (default)		10 ~ 15 V	20 ~ 30 V		30 ~ 45 V (S) 40 ~ 60 V (H)	40 ~ 60 V
AC INPUT						
AC input range (bypass mode)		0 ~ 121 V / 132 V / 138 V / 144 Vac for 100 V / 110 V / 115 V / 120 Vac ± 10 Vac 0 ~ 242 V / 264 V / 276 V / 288 Vac for 200 V / 220 V / 230 V / 240 Vac ± 10 Vac				
AC input range (mains mode)		100 V: 70 ~ 130 Vac 110 V: 80 ~ 140 Vac 115 V: 85 ~ 145 Vac 120 V: 90 ~ 150 Vac 200 V: 145 ~ 260 Vac 220 V: 165 ~ 280 Vac 230 V: 175 ~ 290 Vac 240 V: 185 ~ 300 Vac				
Frequency input range		50 Hz / 60 Hz (auto-sense), 50 Hz / 60 Hz ± 5% ~ 15%				
Generator connection		Available (generator input power is settable)				
OUTPUT						
Inverter output range		100 V / 110 V / 115 V / 120 / 200 V / 220 V / 230 V / 240 Vac ± 5% (settable)				
AC output range (bypass mode)		0 ~ 121 V / 132 V / 138 V / 144 Vac for 100 V / 110 V / 115 V / 120 Vac ± 10 Vac 0 ~ 242 V / 264 V / 276 V / 288 Vac for 200 V / 220 V / 230 V / 240 Vac ± 10 Vac				
AC output range (mains mode)		100 V: 90 ~ 110 Vac 110 V: 99 ~ 121 Vac 115 V: 103 ~ 126 Vac 120 V: 108 ~ 132 Vac 200 V: 166 ~ 226 Vac 220 V: 188 ~ 245 Vac 230 V: 199 ~ 254 Vac 240 V: 210 ~ 264 Vac				
Output frequency		50 / 60 Hz ± 0.3 Hz (settable)				
Waveform		Pure sine wave				
Inverter efficiency		Max. 75%	Max. 80%		Max. 85%	
Energy saving mode		Settable (< 3% load) , enter in 80 s				
No-load shutdown		Settable (< 3% load), shut down in 80 s				
Transfer time		≤ 10 ms				
THDV (resistive load)		≤ 5%				
Protections		Overload, short circuit (inverter), battery low voltage, battery overcharge, overtemperature				
Overload (mains mode)		110% for 120 s, 125% for 60 s, 150% for 10 s (transfer to bypass mode)				
Overload (inverter mode)		110% for 60 s, 125% for 10 s, 150% for 5 s (shut down directly)				
Mute		Automatic mute in 60 s or by manual				
BATTERIES						
Battery capacity (H: external expansion)		12 V x 1	12 V / 7 Ah x 2	12 V / 9 Ah x 2	12 V / 9 Ah x 3 (H: 12 V x 4)	12 V / 9 Ah x 4
Charging current		Standard model (S): 1 A (default)				
		Long time model (H): 10 A (default); < 10 A, set step 1 A; ≥ 10 A, set step 5 A				
		Max. 10 A (H)	Max. 15 A (H)	/	Max. 20 A (H)	Max. 25 A (H)
Equalizing charge voltage		Single battery 14.1 Vdc (default), 13.6 ~ 15 Vdc adjustable				
Floating charge voltage		Single battery 13.5 Vdc (default), 13.2 ~ 14.6 Vdc adjustable				
Low voltage alarm point		Single battery 10.8 Vdc (default), 9.6 ~ 13 Vdc adjustable				
Low voltage shutdown point		Single battery 10.2 Vdc (default), 9.6 ~ 11.5 Vdc adjustable				
OTHERS						
Communications		USB & RJ45 (standard), dry contacts / SNMP (optional)				
Operating temperature		5℃ ~ 40℃				
Operating humidity		Relative humidity ≤ 93%				
Noise level		≤ 50 dB (1 m)				
Tower	Dimensions (W × D × H) (mm)	144 × 345 × 215 (S / H)			144 × 410 × 215 (S) 144 × 345 × 215 (H)	190 × 467 × 335.5 (S / H)
	Packaged dimensions (W × D × H) (mm)	236 × 427 × 316 (S / H)			236 × 492 × 316 (S) 236 × 427 × 316 (H)	320 × 592 × 462 (S / H)
	Net weight (kg)	7.0 (H)	12.2 (S) 11.6 (H)	14.2 (S)	18.5 (S) 17.8 (H)	28.1 (S) 28.0 (H)
	Gross weight (kg)	8.0 (H)	13.2 (S) 12.6 (H)	15.2 (S)	19.8 (S) 18.8 (H)	30.2 (S) 30.0 (H)
Rack-mount	Dimensions (W × D × H) (mm)	/	440 × 338 × 88 (S)	440 × 410 × 132 (S)		
	Packaged dimensions (W × D × H) (mm)	/	611 × 448 × 208 (S)	611 × 505 × 235 (S)		
	Net weight (kg)	/	14.6 (S)	17.2 (S)	21.3 (S)	26.7 (S)
	Gross weight (kg)	/	16.8 (S)	20.4 (S)	24.5 (S)	30.5 (S)

- S means standard model, H means long time model.
- All specifications subject to change without notice.
- Custom-made specifications are acceptable.

Pure Sine Wave Inverter

300 W ~ 3500 W

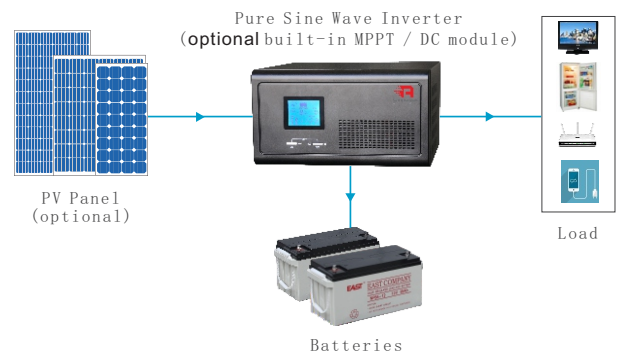


300 W ~ 1600 W



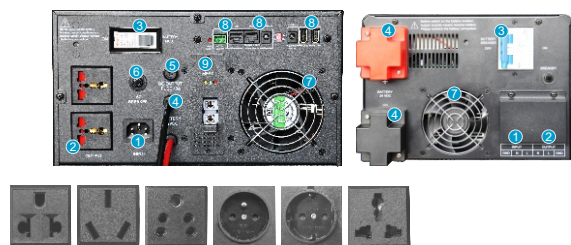
2500 W ~ 3500 W

The Pure Sine Wave Inverter is desirable long backup power solution for home and office appliances. It is not only an inverter but also contains a powerful intelligent charger. It provides pure sine wave power to all kinds of loads. And it can be used as UPS for computers as well.



Features

- DSP digital control technology
- Pure sine wave output
- Suitable for all kinds of loads, such as resistive, inductive and rectified loads and motors
- Use of pulse by pulse technology, improving load shock ability
- Charge current Max.60A. Settable charge current and charge voltage on front panel
- Settable no-load shutdown and energy saving mode
- Short circuit, overload and low battery protection
- Intelligent long backup time up to 10hrs (based on battery bank and loads)
- Compatible with generators, and matching of inverter and generator is settable.
- Unique functions: optional built-in MPPT module enables the inverter to work as off-grid solar inverter, optional DC module enables the inverter to apply to communications, router, switch, mobile charging, DC fans and illumination.



Rear Panel

- | | |
|--------------------|---------------------------|
| 1. Input | 6. AC Breaker |
| 2. Output | 7. Fan |
| 3. Battery Breaker | 8. DC Output (optional) |
| 4. Battery Input | 9. MPPT Module (optional) |
| 5. Fuse | |

Specifications

MODEL	300 W	600 W	1000 W	1600 W	2500 W	3500 W
DC INPUT						
Nominal input voltage	12 V			24 V		
DC input voltage range	10 V ~ 15 V			20 V ~ 30 V		
AC INPUT						
Bypass voltage	0 ~ 264 Vac for 220 Vac / 230 Vac / 240 Vac, 0 ~ 132 Vac for 100 Vac / 110 Vac / 115 Vac / 120 Vac					
AC voltage	150 ~ 282 Vac for 220 Vac, 156 ~ 294 Vac for 230 Vac, 163 ~ 307 Vac for 240 Vac, 68 ~ 128 Vac for 100 Vac, 75 ~ 141 Vac for 110 Vac, 79 ~ 148 Vac for 115 Vac, 82 ~ 154 Vac for 120 Vac					
Frequency	50 Hz / 60 Hz (auto-sense & settable: 5% ~ 15%, default 15%), 42.5 ~ 57.5 Hz for 50 Hz, 51 ~ 69 Hz for 60 Hz					
Input voltage of generator	99 ~ 282 Vac for 220 Vac, 104 ~ 294 Vac for 230 Vac, 108 ~ 307 Vac for 240 Vac, 45 ~ 128 Vac for 100 Vac, 50 ~ 141 Vac for 110 Vac, 52 ~ 148 Vac for 115 Vac, 54 ~ 154 Vac for 120 Vac					
Input frequency of generator	40 ~ 70 Hz					
Input power limitation	Rated power 10% ~ 150%, regulating step 10%, default 120%					
OUTPUT						
DC mode output voltage	220 Vac / 230 Vac / 240 Vac ± 5% or 100Vac / 110Vac / 115Vac / 120Vac ± 5% (settable)					
AC mode output voltage	174 ~ 242 Vac for 220 Vac, 182 ~ 253 Vac for 230 Vac, 190 ~ 264 Vac for 240 Vac, 79 ~ 109 Vac for 100 Vac, 87 ~ 121 Vac for 110 Vac, 93 ~ 125 Vac for 115 Vac, 95 ~ 133 Vac for 120 Vac					
Nominal output frequency	50 Hz / 60 Hz ± 0.3 Hz (auto-sense & settable)					
Output waveform	Pure sine wave					
Output power	300 W	600 W	1000 W	1600 W	2500 W	3500 W
Efficiency	Max. 95% (mains mode); Max. 80% (inverter mode)					
ECO mode	Settable, load < 3%, enter in 80 s					
No-load shutdown	Settable, time can be set (1 ~ 99 min), load can be set (3% ~ 50%)					
Transfer time	≤ 10 ms				≤ 15 ms	
Power factor	1.0					
THDV	< 5% (linear load)					
Inductive load	Yes					
Motor load	Yes					
Rectifier load	Yes					
Overload	Mains mode: 110% for 120 s, 125% for 60 s, 150% for 10 s (switch to bypass) Inverter mode: 110% for 60 s, 125% for 10 s, 150% for 10 s (shut down)					
BATTERIES						
Charging current (selectable)	Default 10 A	Default 20 A, regulating step 1 A (< 10 A) / 5 A (> 10 A)				
	Max. 15 A	Max. 30 A	Max. 40 A	Max. 40 A	Max. 50 A	Max. 60 A
Equalizing charge voltage	Single battery 14.4 Vdc (default), 13.6 ~ 15 Vdc adjustable					
Floating charge voltage	Single battery 13.7 Vdc (default), 13.2 ~ 14.6 Vdc adjustable					
Charge mode	3 stage charge mode					
DOD	Single battery 10.8 Vdc (default), 9.6 ~ 13 Vdc settable					
EOD	Single battery 10.2 Vdc (default), 9.6 ~ 11.5 Vdc adjustable					
Reverse warning	Buzzer					
MPPT MODULES (OPTIONAL)						
Model	10 A / 20 A / 30 A / 40 A				/	
Max. PV input voltage (Voc)	40 V			60 V	/	
PV optimum operating voltage (Vmp)	18 V ~ 32 V			29 V ~ 48 V	/	
Max. PV power	120 W / 240 W / 360 W / 480 W			240 W / 480 W / 720 W / 960 W	/	
DC MODULES (OPTIONAL)						
Model	5 V (2 A), 9 V / 12 V (1 A), 15 V / 24 V (1 A), 12 V / 24 V (10 A)					
OTHERS						
Protections	Overload - short-circuit - overvoltage - undervoltage - overcharge - overtemperature - excessive low battery					
Human-machine interface	LCD & BUZZER					
Operating temperature	0°C ~ 40°C					
Operating humidity	Relative humidity ≤ 93%					
Net weight (kg)	8.0 / 8.5 / 7.4	10.9 / 11.4 / 11	14.0 / 14.6	18.0 / 18.5	32.0	36.0
Gross weight (kg)	9.0 / 9.5 / 8.4	11.9 / 12.4 / 12	15.0 / 15.6	19.0 / 19.5	34.0	38.0
Dimensions (W × D × H) (mm)	280×258×120 (w / o option) 293×280×160 (w / option) 400×210×127 (Wall mounted)		293 × 280 × 160		302 × 479 × 209	
Packaged dimensions (W × D × H) (mm)	330×352×200 (w / o option) 370×355×235 (w / option) 490×290×195 (Wall mounted)		370 × 355 × 235		353 × 582 × 287	

● All specifications subject to change without notice.

● Custom-made specifications are acceptable.

TITTAN PLUS

1 kVA ~ 3 kVA

PF 0.9



Features

- High frequency on-line double conversion technology
- DSP (Digital signal processors) control technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 0.9
- Wide input voltage range (110 V ~ 300 Vac) and frequency range (40 ~ 70 Hz)
- Auto sensing frequency
- 50 / 60 Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan
- Effective software and hardware protection
- Quick and stable charging, 90% capacity restored in 3 h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Settable delayed start when power is restored
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, EOD, auto-

start, bypass mode, ECO mode and frequency conversion mode

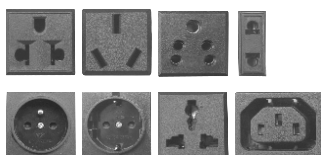
- Multi-platform communications: RS232 (standard), USB / RS485 / SNMP / dry contacts (optional)

Available Options

- Optional USB, RS485 card, AS400 dry contacts, SNMP card, SMS alarms, EPO function, and 12 A charger (2-3 kVA only)

Rear Panel

1. Overcurrent Protection
2. AC Input
3. Modem/Tel/Fax
4. DC Input
5. Outlet
6. Fan
7. RS232
8. USB (optional)
9. EPO (optional)
10. SNMP/AS400 (optional)



Optional sockets



Specifications

MODEL	TITTAN+ 1 S			TITTAN+ 1H	TITTAN+ 2S		TITTAN+ 2H	TITTAN+ 3S		TITTAN+ 3H
Capacity	1 kVA / 900 W			2 kVA / 1800 W			3 kVA / 2700 W			
INPUT										
Rated voltage	208 V / 220 V / 230 V / 240 Vac									
Voltage range	110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 280 Vac (no derating); 280 ~ 300 Vac (derating 50%)									
Frequency	40 ~ 70 Hz (auto-sense)									
Power factor	≥ 0.99									
Bypass voltage range	- 25% ~ +15% (settable)									
OUTPUT										
Voltage	208 V / 220 V / 230 V / 240 Vac (settable via LCD)									
Voltage regulation	±1%									
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz ±0.1 Hz (battery mode)									
Waveform	Sinusoidal									
Crest factor	3:1									
Harmonic distortion	≤ 2% (linear load); ≤ 5% (non-linear load)									
Transfer time	Mains mode to battery mode: 0 ms Inverter mode to bypass mode: 4 ms (typical)									
Overload	105% ~ 125% for 1 min, 125% ~ 150% for 30 s, > 150% for 300 ms									
EFFICIENCY										
Mains mode	≥ 90%			≥ 91%			≥ 92%			
Battery mode	≥ 85%			≥ 86%			≥ 87%			
ECO mode	≥ 95%			≥ 96%			≥ 97%			
BATTERIES										
DC voltage	24 V	36 V	36 V	48 V	72 V	72 V	72 V	96 V	96 V	
Inbuilt battery	2 × 9 Ah	3 × 7 Ah	/	4 × 9 Ah	6 × 7 Ah	/	6 × 9 Ah	8 × 7 Ah	/	
Charging current (max.)	1 A		6 A	1 A		6 A	1 A		6 A	
Recharge time	8 h									
ALARMS										
Utility failure	4 s per beep									
Low battery	1 s per beep									
Overload	1 s twice beep									
UPS fault	Long beep									
OTHERS										
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP (optional)									
Operating temperature	0 ~ 40℃									
Relative Humidity	0 ~ 90% (non-condensing)									
Noise level	≤ 50 dB (1 m)									
Dimensions (W×D×H) (mm)	144 × 336 × 214	144 × 414 × 214	144 × 336 × 214	191 × 418 × 335				191 × 464 × 335	191 × 418 × 335	
Packaged dimensions (W×D×H) (mm)	232 × 417 × 318	230 × 492 × 320	232 × 417 × 318	318 × 533 × 471				320 × 573 × 472	318 × 533 × 471	
Net weight (kg)	9.5	13	6	18	25.8	10.5	27.2	32	11	
Gross weight (kg)	10.5	14.2	7	19.5	27.4	12	29	34	12.5	

●Derate capacity to 70% in CUCF mode and to 90% when the output voltage is adjusted to 208 Vac.
 ●S means standard model, H means long time model.

●All specifications subject to change without notice.
 ●Custom-made specifications are acceptable.

TITTAN PLUS

6 kVA ~ 10 kVA

PF0.9



Features

- High frequency on-line double conversion technology
- DSP (Digital signal processors) technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 0.9
- Wide input voltage range (110 V ~ 300 Vac) and frequency range (40 ~ 70 Hz)
- Auto sensing frequency
- 50/60Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan
- Effective software and hardware protection
- Flexible battery configuration (Settable 14 - 20 pcs batteries)
- Quick and stable charging, 90% capacity restored in 4 h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Settable delayed start when power is restored
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, battery quantity, EOD, EPO, ECO mode, frequency conversion mode and parallel enable
- Powerful background software for parameters configuration, function settings and online updating

- Multi-platform communications: RS232 (standard), USB / RS485 / SNMP / dry contacts (optional)

Available Options

- Optional USB, RS485 card, AS400 dry contacts, SNMP card, SMS alarms, maintenance bypass, EPO function, parallel function, battery temperature compensation and EMD environmental sensors

Rear Panel

1. Input and output terminal
2. Input breaker
3. Battery breaker
4. Maintenance bypass (optional)
5. Inbuilt battery
6. Fan
7. External battery connector
8. Intelligent slot (SNMP / AS400 / RS485 optional)
9. USB (optional)
10. RS232
11. EPO
12. Parallel card (optional)
13. Battery temperature compensation (optional)



Long time model

Standard model

Specifications

MODEL	TITTAN+ 6S	TITTAN+ 6H	TITTAN+ 10S	TITTAN+ 10H
Capacity	6 kVA / 5400 W		10 kVA / 9000 W	
INPUT				
Rated voltage	208 V / 220 V / 230 V / 240 Vac			
Voltage range	110 ~ 160 Vac (linear derating between 50% and 100% load); 160 ~ 280 Vac (no derating); 280 ~ 300 Vac (derating 50%)			
Rated frequency	50 / 60 Hz (auto-sense)			
Frequency range	40 ~ 70 Hz			
Power factor	≥ 0.99			
Total harmonic distortion (THDI)	≤ 5%			
Bypass voltage range	- 40% ~ + 15% (settable)			
OUTPUT				
Voltage	208 V / 220 V / 230 V / 240 Vac (settable)			
Voltage regulation	± 1%			
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz ± 0.1 Hz (battery mode)			
Waveform	Pure sine wave			
Crest factor	3:1			
Total harmonic distortion (THDV)	≤ 2% (linear load); ≤ 5% (non-linear load)			
Transfer time	Mains mode to battery mode: 0 ms; Inverter mode to bypass mode: 0 ms			
Inverter overload capability	102% ~ 125%: Transfer to bypass in 10 min; 125% ~ 150%: Transfer to bypass in 1 min; > 150%: Transfer to bypass in 0.5 s			
Bypass overload capability	102% ~ 125%: Shut down in 20 min; 125% ~ 150%: Shut down in 2 min; > 150%: Shut down in 1 s			
BATTERIES				
DC voltage	192 Vdc (168 / 192 / 216 / 240 Vdc optional)			
Inbuilt battery	16×7 Ah	/	16×9 Ah	/
Charging current	Standard model: 1 A; Long time model: 1 A, 2 A, 3.5 A (settable)			
Recharge time	Standard model (S): 90% capacity restored in 4 hours; Long time model (H): depend on the capacity of battery			
SYSTEM				
EFFICIENCY	≥ 93%, ECO mode 98%			
Display	LCD + LED			
Alarms	Battery mode, battery voltage low, fans fault etc.			
Maximum Parallel numbers	6			
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP (optional)			
EMI	IEC/EN62040-2			
EMS	IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (Surge)			
OTHERS				
Humidity	20 ~ 90% RH @ 0 ~ 40℃ (non-condensing)			
Noise level	≤ 55 dB (1 m)			
Dimensions (W×D×H) (mm)	191×462×710	191×462×350	191×462×710	191×462×350
Packaged dimensions (W×D×H) (mm)	308×640×896	267×573×436	308×640×896	267×573×436
Net weight (kg)	58.7	15.6	67.2	16.1
Gross weight (kg)	64.8	17.9	73.3	18.4

● Derate capacity to 70% in frequency conversion mode and to 90% when the output voltage is adjusted to 208 Vac.
 ● S means standard model, H means long time model.

● All specifications subject to change without notice.
 ● Custom-made specifications are acceptable.

VIGOR PLUS RT

1 kVA ~ 3 kVA

PF 0.9



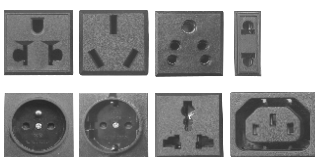
Features

- High frequency on-line double conversion technology
- DSP (Digital signal processors) control technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 0.9
- Wide input voltage range (110 V ~ 300 Vac) and frequency range (40 ~ 70 Hz)
- Auto sensing frequency
- 50 / 60 Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan
- Effective software and hardware protection
- Quick and stable charging, 90% capacity restored in 3 h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Settable delayed start when power is restored
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, EOD, auto-start, bypass mode, ECO mode and frequency conversion mode
- Multi-platform communications: RS232 (standard), USB / RS485 / SNMP / dry contacts (optional)

Available Options

- Optional USB, RS485 card, AS400 dry contacts, SNMP card, SMS alarms, EPO function, MBS (External maintenance bypass switch)

Rear Panel



Optional sockets

1. Overcurrent Protection
2. AC Input
3. Modem/Tel/Fax
4. DC Input
5. Outlet
6. FAN
7. RS232
8. EPO (optional)
9. USB (optional)
10. Intelligent Slot



Specifications

MODEL	VIGOR+ 1S			VIGOR+ 1H	VIGOR+ 2S		VIGOR+ 2H	VIGOR+ 3S		VIGOR+ 3H
Capacity	1 kVA / 900 W			2 kVA / 1800 W		3 kVA / 2700 W				
INPUT										
Rated voltage	208 V / 220 V / 230 V / 240 Vac									
Voltage range	110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 280 Vac (no derating); 280 ~ 300 Vac (derating 50%)									
Frequency	40 ~ 70 Hz (auto-sense)									
Power factor	≥ 0.99									
Bypass voltage range	- 25% ~ +15% (settable)									
OUTPUT										
Voltage	208 V / 220 V / 230 V / 240 Vac (settable via LCD)									
Voltage regulation	±1%									
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz ±0.1 Hz (battery mode)									
Waveform	Sinusoidal									
Crest factor	3:1									
Harmonic distortion	≤ 2% (linear load); ≤ 5% (non-linear load)									
Transfer time	Mains mode to battery mode: 0 ms Inverter mode to bypass mode: 4 ms (typical)									
Overload capability	105% ~ 125% for 1 min, 125% ~ 150% for 30 s, > 150% for 300 ms									
EFFICIENCY										
Mains mode	≥ 90%			≥ 91%			≥ 92%			
Battery mode	≥ 85%			≥ 86%			≥ 87%			
ECO mode	≥ 95%			≥ 96%			≥ 97%			
BATTERIES										
DC voltage	24 V	36 V	36 V	48 V	72 V	72 V	72 V	96 V	96 V	
Inbuilt battery	2 × 9 Ah	3 × 7 Ah	/	4 × 9 Ah	6 × 7 Ah	/	6 × 9 Ah	8 × 7 Ah	/	
Charging current (max.)	1 A		6 A	1 A		6 A	1 A		6 A	
Recharge time	8 h									
ALARMS										
Utility failure	4 s per beep									
Low battery	1 s per beep									
Overload	1 s twice beep									
UPS fault	Long beep									
OTHERS										
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP (optional)									
Operating temperature	0 ~ 40°C									
Relative Humidity	0 ~ 90% (non-condensing)									
Noise level	≤ 50 dB (1 m)									
Dimensions (W×D×H) (mm)	440 × 468 × 88			440 × 658 × 88		440×468 ×88	440×658 ×88	440×468 ×88 (UPS) 440×440 ×86 (BAT)	440×468 ×88	
Packaged dimensions (W×D×H) (mm)	545 × 592 × 198			545 × 782 × 201		545×592 ×198	545×782 ×201	545×592 ×198 (UPS) 590×580 ×200 (BAT)	545×592 ×198	
Net weight (kg)	12.26	13.78	7.58	22.73	25.86	9.66	29.26	9.45 (UPS) 27.2 (BAT)	10.04	
Gross weight (kg)	15.78	17.3	11.1	26.63	29.76	13.18	33.16	12.97 (UPS) 30.2 (BAT)	13.56	

●Derate capacity to 70% in CUCF mode and to 90% when the output voltage is adjusted to 208 Vac. ●All specifications subject to change without notice.
 ●S means standard model, H means long time model. ●Custom-made specifications are acceptable.

VIGOR PLUS RT

6 kVA ~ 10 kVA
PF 0.9



Features

- Rack / Tower design
- High frequency and true double-conversion
- DSP digital control technology
- Input power factor correction (PFC)
- Wide input voltage range (110 V ~ 300 V)
- Output power factor 0.9
- Cold start
- Auto sensing frequency
- ECO mode operation for energy saving
- Selectable output voltage via LCD
- 50 Hz / 60 Hz frequency conversion mode
- Selectable battery low voltage via LCD
- Power-on self test
- Advanced battery management (ABM)
- Short circuit and overload protection
- Automatic charging in OFF mode
- Fan speed auto control when temperature varies
- Standard RS232 communication port and RJ45 protection
- Optional USB / SNMP communication port
- Optional emergency power off (EPO)
- Optional extension battery bank
- Optional N+X redundancy parallel

Rear Panel

1. AC Input
2. DC Input
3. Outlet
4. Fan
5. RS232
6. USB (Optional)
7. EPO (Optional)
8. SNMP/AS400 (Optional)
9. Parallel Card (Optional)



Specifications

MODEL		VIGOR+ 6 RT		VIGOR+ 10 RT	
Capacity		6 kVA / 5400 W		10 kVA / 9000 W	
INPUT					
Rated voltage		208 V / 220 V / 230 V / 240 Vac			
Voltage range		110 ~ 160 Vac (linear derating between 50% and 100% load); 160 ~ 280 Vac (no derating); 280 ~ 300 Vac (derating 50%)			
Frequency		40 ~ 70 Hz ± 0.5% (auto-sense)			
Power factor		≥ 0.99			
Bypass voltage range		- 40 ~ +15% (settable)			
OUTPUT					
Voltage		208 V / 220 V / 230 V / 240 Vac (settable via LCD)			
Voltage regulation		± 1%			
Frequency		Synchronized with utility in mains mode; 50 / 60 Hz ±0.2 Hz in battery mode			
Waveform		Sinusoidal			
Crest factor		3:1			
Harmonic distortion		≤ 2% (linear load); ≤ 5% (non-linear load)			
Transfer time		Mains mode to battery mode: 0 ms; Inverter mode to bypass mode: 0 ms			
Overload		105% ~ 125% for 3 min, 125% ~ 150% for 30 s, >150% for 0.5 s			
EFFICIENCY					
Mains mode		≥ 93%			
Battery mode		≥ 91%			
ECO mode		≥ 98%			
BATTERIES					
DC voltage		192 V			
Inbuilt battery of standard model		16 × 7 Ah		16 × 9 Ah	
Charging current	Standard model	1 A			
	Long time model	1 A/3 A/5 A/8 A			
Recharge time		8 h			
ALARMS					
Utility failure		4 s per beep			
Low battery		1 s per beep			
Overload		1 s twice beep			
UPS fault		Long beep			
OTHERS					
Communications		RS232 (standard), USB / SNMP (optional)			
Humidity		20 ~ 90% RH @ 0 ~ 40℃ (non-condensing)			
Noise level		≤ 55 dB (1 m)			
Long time model	Dimensions (W × D × H) (mm)	440 × 580 × 132 (UPS)			
	Packaged dimensions (W × D × H) (mm)	530 × 703 × 227 (UPS)			
	Net / Gross weight (kg)	16.4 / 20.7		17.1 / 21.4	
Standard model	Dimensions (W × D × H) (mm)	440 × 580 × 132 (UPS), 440 × 580× 132 (BAT)			
	Packaged dimensions (W × D × H) (mm)	530 × 703 × 227 (UPS), 530 × 703 × 227 (BAT)			
	Net / Gross weight (kg)	16.4 / 20.7 (UPS) 43.6 / 47.1 (BAT)		17.1 / 21.4 (UPS) 49.6 / 53.1 (BAT)	

- Derate capacity to 70% in CUCF mode and to 90% when the output voltage is adjusted to 208 Vac.
- All specifications subject to change without notice.
- Custom-made specifications are acceptable.

TITTAN PLUS

6 kVA ~ 20 kVA (3:1)

PF 0.9



Features

- High frequency and true double-conversion
- DSP digital control technology
- Wide input voltage range (110 V ~ 300 V)
- Output power factor 0.9
- Optimized battery configuration: 192 V / 240 V
- Cold start
- Auto sensing frequency
- ECO mode operation for energy saving
- 50/60Hz frequency conversion mode
- Selectable output voltage via LCD
- Selectable battery shutdown voltage (EOD) via LCD
- Selectable input mode via LCD (3 : 1 or 1 : 1)
- Power-on self test
- Advanced battery management (ABM)
- Short circuit and overload protection
- Automatic charging in OFF mode
- Fan speed auto control when temperature varies
- Standard RS232 / USB communication port
- Standard emergency power off (EPO)
- Optional RS485 / SNMP / AS400 communication port
- Optional extension battery bank
- Optional battery temperature compensation
- Optional built-in isolation transformer
- Optional manual bypass
- Optional N+X redundancy parallel

Rear Panel

- | | |
|-------------|------------------------------|
| 1. AC Input | 7. EPO |
| 2. DC Input | 8. Manual Bypass (optional) |
| 3. Outlet | 9. SNMP/AS400 (optional) |
| 4. Fan | 10. Breaker |
| 5. RS232 | 11. Parallel Card (optional) |
| 6. USB | 12. BAT_NTC (optional) |



6 / 10 KS

15 / 20 KH

6 / 10 KH

Specifications

MODEL		TITTAN+ 6	TITTAN+ 10	TITTAN+ 15	TITTAN+ 20
Capacity		6 kVA / 5.4 kW	10 kVA / 9 kW	15 kVA / 13.5 kW	20 kVA / 18 kW
INPUT					
Rated voltage		3:1: 360 V / 380 V / 400V / 415 Vac; 1:1: 208 V / 220 V / 230 V / 240 Vac (settable via LCD)			
Voltage range		3:1: 190 ~ 277 Vac (derating 50%), 277 ~ 520 Vac (no derating); 1:1:110 ~ 160 Vac (derating 50%), 160 ~ 300 Vac (no derating)			
Frequency		40 ~ 70 Hz (auto-sense)			
Power factor		3:1 ≥ 0.95; 1:1 ≥ 0.99			
BYPASS					
Voltage range		- 40% ~ + 15% (settable)			
Frequency		50 / 60 Hz ± 5 Hz			
OUTPUT					
Voltage		208 V / 220 V / 230 V / 240 Vac (settable via LCD)			
Voltage regulation		±1%			
Frequency		Synchronized with utility in mains mode; 50 / 60 ±0.2 Hz in battery mode			
Waveform		Sinusoidal			
Crest factor		3:1			
Harmonic distortion		≤ 2% (linear load); ≤ 5% (non-linear load)			
Transfer time		0 ms			
Overload capability		105% ~ 125%: transfer to bypass in 3 min; 125% ~ 150%: transfer to bypass in 30 s; > 150%: transfer to bypass in 0.5 s			
EFFICIENCY					
Mains mode		≥ 92%			
Battery mode		≥ 91%			
ECO mode		≥ 98%			
BATTERIES					
DC voltage		192 Vdc / 240 Vdc			
Inbuilt battery of standard model		16 / 20 × 7 Ah	16 / 20 × 9 Ah	/	
Charging current	Standard model	1 A		/	
	Long time model	7 A			
Recharge time		8 h			
ALARMS					
Utility failure		4 s per beep			
Low battery		1 s per beep			
Overload		1 s twice beep			
UPS fault		Long beep			
OTHERS					
Communications		RS232 / USB (standard), RS485 / dry contacts / SNMP (optional)			
Humidity		20 ~ 90% RH @ 0 ~ 40°C (non-condensing)			
Noise level		≤ 58 dB (1 m)			≤ 60 dB (1 m)
Dimensions (W × D × H) (mm)		262 × 580 × 455 (H), 262 × 580 × 732 (S)		262 × 580 × 628 (H)	
Packaged dimensions (W × D × H) (mm)		355 × 682 × 615 (H), 359 × 687 × 937 (S)		359 × 687 × 832 (H)	
Net weight (kg)		25.0 (H), 73.0 (S)	25.5 (H), 74.0 (S)	38.5 (H)	39.0 (H)
Gross weight (kg)		28.5 (H), 82.5 (S)	29.0 (H), 83.5 (S)	47.0 (H)	47.5 (H)

- Derate capacity to 70% in CUCF mode and to 90% when the output voltage is adjusted to 208 Vac.
- 3 : 1 means three-phase input and single-phase output mode; 1 : 1 means single-phase input and single-phase output mode.
- S means standard model, H means long time model.

- All specifications subject to change without notice.
- Custom-made specifications are acceptable.

TITTAN PLUS

10 kVA ~ 30 kVA (3:3)

PF 0.9



Features

- DSP digital control technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 0.9
- Cold start
- Dual input
- Wide input voltage range (190 V ~ 485 V)
- Auto sensing frequency
- 50 / 60 Hz frequency conversion mode
- Work efficiency up to 98% in ECO mode
- Auto control fan speed when loads varies
- Auto power ON/OFF according to the load capacity set by users
- Flexible battery configuration for using 14/16/18/20 pcs batteries
- Compact internal layout, miniaturized the complete unit for small footprint
- LCD+LED display, multi-functional keys operation, friendly human-machine interface
- Powerful background software for parameters configuration and online updating
- Doubling the battery charging speed, 90% capacity restored in 4 hours (standard model UPS)
- Linear derating in low voltage input, reducing battery discharging times, extending the service life of battery
- Advanced battery management (ABM), automatic floating / equalizing charge control, charger dormancy control
- Configurable switching time from battery mode to mains mode when mains power is restored, reducing the impact on power grid or generator
- Effective software and hardware protection function, powerful self-diagnostic function, abundant historical records
- Standard emergency power off (EPO)
- Standard maintenance bypass
- Standard RS232/USB communication port
- Optional RS485 / SNMP / AS400 communication port and SMS alarms
- Optional N+X redundancy parallel up to 6 units
- Optional battery temperature compensation, EMD environmental sensors

Rear Panel

1. Mains Input
2. DC Input
3. Bypass Input
4. Output
5. Mains Input Breaker
6. Bypass Input Breaker
7. Maintenance Bypass
8. Fan
9. RS232
10. USB
11. EPO
12. Battery Temperature Compensation (Optional)
13. Intelligent Slot 1 (SNMP / AS400 / RS485 Optional)
14. Intelligent Slot 2 (Optional)
15. Parallel Card (optional)
16. Battery Breaker



Specifications

MODEL	TITTAN+ 10	TITTAN+ 15	TITTAN+ 20	TITTAN+ 30
Capacity	10 kVA / 9 kW	15 kVA / 13.5 kW	20 kVA / 18 kW	30 kVA / 27 kW
INPUT				
Rated voltage	360 V / 380 V / 400 V / 415 Vac			
Voltage range	277 ~ 485 Vac (no derating); 190 ~ 277 Vac (linear derating between 50% and 100% load)			
Rated frequency	50 / 60 Hz (auto-sense)			
Frequency range	40 ~ 70 Hz			
Power factor	≥ 0.99			
Total harmonic distortion (THDI)	≤ 5%			
Bypass voltage range	- 40% ~ + 15% (settable)			
OUTPUT				
Voltage	360 V / 380 V / 400 V / 415 Vac (settable)			
Voltage regulation	± 1%			
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz ± 0.1 Hz (battery mode)			
Waveform	Sinusoidal			
Crest factor	3:1			
Total harmonic distortion (THDV)	≤ 2% (linear load); ≤ 5% (non-linear load)			
Transfer time	Mains mode to battery mode: 0 ms; Inverter mode to bypass mode: 0 ms			
Inverter overload capability	102% ~ 125%: transfer to bypass in 10 mins; 125% ~ 150%: transfer to bypass in 1 min; > 150%: transfer to bypass in 0.5 s			
Bypass overload capability	102% ~ 125%: shut down in 20 mins; 125% ~ 150%: shut down in 2 mins; > 150%: shut down in 1 s			
BATTERIES				
DC voltage	Standard model: 240 Vdc; Long time model: 192 Vdc (168V / 192V / 216V / 240V optional)			
Inbuilt battery of standard model	20 × 7 Ah	40 × 7 Ah	40 × 9 Ah	60 × 9 Ah
Charging current	Long time model: 7 A supplied (additional 7 A is optional) Standard model: 1 A, 2 A, 3.5 A settable			
Recharge time	Standard model: 90% capacity restored in 4 hours; Long time model: depend on the capacity of battery			
SYSTEM				
Efficiency	≥ 93%, ECO mode 98%			
Display	LCD + LED			
Alarm	Battery mode, low battery, fans fault etc.			
Max. parallel numbers	6			
Communications	RS232 / USB (standard), RS485 / dry contacts / SNMP (optional)			
EMI	IEC / EN62040-2			
EMS	IEC61000-4-2 (ESD)			
	IEC61000-4-3 (RS)			
	IEC61000-4-4 (EFT)			
	IEC61000-4-5 (surge)			
OTHERS				
Humidity	20 ~ 90% RH @ 0 ~ 40°C (non-condensing)			
Noise level	≤ 60 dB (1 m)	≤ 65 dB (1 m)		
Dimensions (W × D × H) (mm)	350 × 655 × 732 (H)			
	350 × 785 × 858 (S)	350 × 785 × 1078 (S)		
Packaged dimensions (W × D × H) (mm)	472 × 780 × 920 (H)			
	472 × 910 × 1050 (S)	472 × 910 × 1260 (S)		
Net weight (kg)	55 (H), 115 (S)	60 (H), 155 (S)	61 (H), 175 (S)	65 (H), 235 (S)
Gross weight (kg)	65 (H), 125 (S)	70 (H), 170 (S)	71 (H), 190 (S)	75 (H), 250 (S)

- Derate capacity to 90% when the output voltage is adjusted to 360 Vac.
- All specifications subject to change without notice.
- S means standard model, H means long time model.
- Custom-made specifications are acceptable.

COMET PLUS

10 kVA ~ 120 kVA (3:3)

PF 0.9



Features

- High frequency online double-conversion with DSP control
- Modular design, high reliability, simplified maintenance
- Double input distribution, higher reliability of system
- Input power factor correction (PFC)
- ECO mode operation for energy saving
- Wide input voltage range, 50 Hz / 60 Hz auto-sense frequency
- Support two modes of frequency conversion: 50 Hz input / 60 Hz output and 60 Hz input / 50 Hz output
- Input power factor > 0.99, input THDi ≤ 3%, output THDV ≤ 5%
- Output power factor 0.9
- High efficiency: load > 10%, efficiency ≥ 90%; load > 50%, efficiency ≥ 93%
- Digitized charger: flexible charger parameter and battery configuration setting, monitoring battery disconnected on line
- Share battery pack in parallel operation or separate battery pack for different UPS
- Flexible charger parameter and battery configuration setting, selectable battery number: 32 pcs / 34 pcs / 36 pcs / 38 pcs / 40 pcs
- Advanced intelligent battery management technique, prolong the working life of battery effectively
- Support battery cold start and mains supply self-starting
- 5.7 inches LCD touch screen, friendly human & machine interface
- Perfect protective function in hard and software, robust self-diagnosing, abundant event log for future check
- Perfect password control technology, including the first power-on password control, user password control and Maintenance password control.
- Reminders of battery out of warranty
- Standard emergency power off (EPO)
- Standard RS232 / USB / RS485 / dry contacts communication port
- Optional SNMP communication port
- Optional N+1 redundancy parallel up to 4 units
- Optional built-in isolation transformer
- Optional battery temperature compensation

Rear Panel



1. SNMP (optional)
2. RS232
3. RS485
4. USB
5. TEMP COMPENSATION
6. BATTERY PROTECTION
7. DRY CONTACT
8. PARALLEL PORT (optional)

Specifications

MODEL	comet+ 10		comet+ 20		comet+ 30		comet+ 40		comet+ 60		comet+ 80		comet+ 100		comet+ 120		
Capacity	10 kVA 9 kW		20 kVA 18 kW		30 kVA 27 kW		40 kVA 36 kW		60 kVA 54 kW		80 kVA 72 kW		100 kVA 90 kW		120 kVA 108 kW		
INPUT																	
Rated voltage	380 V / 400 V / 415 Vac																
Voltage range	204 ~ 242 Vac (load ≤ 50%); 242 ~ 305 Vac (50% < load ≤ 70%); 305 ~ 520 Vac (70% < load ≤ 100%)																
Rated frequency	50 / 60 Hz (auto-sense)																
Frequency range	40 ~ 70 Hz																
Power factor	≥ 0.99																
Total harmonic distortion (THDI)	≤ 3%																
Bypass voltage range	Rated output voltage - 40% ~ rated output voltage + 20% (settable via LCD)																
OUTPUT																	
Voltage	380 V / 400 V / 415 Vac																
Voltage regulation	±1%																
Frequency	Synchronized with utility in mains mode; Frequency conversion mode: 50 Hz input and 60 Hz output or 60 Hz input and 50 Hz output 50 / 60 Hz in battery mode																
Waveform	Sinusoidal																
Crest factor	3:1																
Total harmonic distortion (THDV)	≤ 1% (linear load); ≤ 5% (non-linear load)																
Transfer time	0 ms																
Inverter overload capability	102% ~ 127% for 10 min, 127% ~ 150% for 1 min, > 150% for 0.5 s																
Bypass overload capability	≤ 150%: long time running > 150%: shut down in 10 s																
BATTERIES																	
DC voltage	±192 V (options: ±204 V / ±216 V / ±228 V / ±240 V)																
Inbuilt battery of standard model	32×12 V / 9 Ah		64 × 12 V / 9 Ah				No										
Charging current	1 ~ 12 A (settable via LCD)				1 ~ 24 A (settable via LCD)				1 ~ 24 A (settable via LCD) 1 ~ 48 A (optional)								
SYSTEM																	
Efficiency	≥ 93%, ECO mode 98.5%																
Display panel	5.7 inches LCD touch screen																
Alarm	Battery mode, low battery, fans fault etc																
Max. parallel numbers	4																
Communications	RS232 / USB / RS485 / dry contacts (standard), SNMP (optional)																
EMI	EN62040-2																
EMS	IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (surge)																
OTHERS																	
Humidity	0 ~ 95% RH @ 0 ~ 40℃ (non-condensing)																
Noise level	≤ 60 dB																
Dimensions (W × D × H) (mm)	600 × 800 × 1360										600 × 800 × 1680						
Packaged dimensions (W × D × H) (mm)	720 × 920 × 1500										720 × 920 × 1820						
Net / Gross weight (kg) Without inbuilt battery	180 / 200	186 / 205	188 / 210	227 / 245	231 / 250	316 / 376	354 / 414										

- All specifications subject to change without notice.
- Custom-made specifications are acceptable.

COMET PLUS

150 kVA ~ 800 kVA (3:3)

PF 0.9



EA990 series 150 kVA ~ 800 kVA is three-phase input and three-phase output uninterruptible power supply system with high frequency on-line double-conversion technology controlled by DSP (Digital Signal Processor) microprocessor. It adopts a highly intelligent modular design to achieve utmost compact layout and improve reliability of the system. It meets the protection demands of critical loads in data centers or other important applications with high electrical performance and hardware/software protections.

Features

- DSP digital control technology
- Pure sine wave double conversion, with strong load capacity
- Modular design, high reliability and easy maintenance
- Dual input power distribution for higher usability
- Input power factor > 0.99, THDi < 3%, environment friendly and high-efficiency and energy-saving
- Keep high efficiency operation at low load rate: 96% at 40% rated load
- High power density, 500 kVA system only 1.02m² footprint
- High Efficiency operating in on-line mode up to 96%, in ECO mode up to 99%
- Wide input voltage range, 50 Hz / 60 Hz frequency auto-sense, adapt to all kind of grid
- Support two modes of frequency conversion: 50 Hz input / 60 Hz output and 60 Hz input / 50 Hz output
- Output power factor 0.9, load capability improved 12.5% more than traditional products
- Advanced parallel expansion technology, support 4 units in parallel
- Share battery pack in parallel operation, saving user's battery cost
- Flexible charger parameter and battery configuration setting, battery number 30 ~ 46 pcs selectable
- Intelligent battery management (Intelligent charge/discharge management and float charging voltage temperature compensation), extending battery lifespan
- Support battery cold start and utility self boot
- Self-aging function, easy debugging and test on site
- Complete hardware and software protection function, robust self-diagnostic function, and abundant event log for check
- 7 inches LCD touch screen, friendly human-machine interface
- Monitoring unit with built-in SNMP, supports RS485 and dry contacts

Specifications

MODEL	comet+ 150	comet+ 200	comet+ 300	comet+ 400	comet+ 500	comet+ 600	comet+ 800
Rated capacity	150 kVA 135 kW	200 kVA 180 kW	300 kVA 270 kW	400 kVA 360 kW	500 kVA 450 kW	600 kVA 540 kW	800 kVA 720 kW
INPUT							
Input wiring	3 Ph + N + PE						
Rated voltage	380 / 400 / 415 Vac						
Voltage range	138 ~ 485 Vac (305 ~ 485 Vac without power downgrading; 138 ~ 305 Vac with linear downgrading 40%)						
Input frequency	40 ~ 70 Hz						
Power factor	≥ 0.99						
Current distortion	< 3%						
BATTERIES							
Battery voltage	± 240 Vdc (±180, ± 192, ± 204, ± 216, ± 228, ± 252, ± 264, ± 276 selectable)						
Number of battery	40 pcs 12 V batteries (supports 30 / 32 / 34 / 36 / 38 / 42 / 44 / 46 pcs)						
OUTPUT							
Output wiring	3 Ph + N + PE						
Rated voltage	380 / 400 / 415 Vac						
Voltage regulation accuracy	± 1%						
Frequency	Synchronized with utility on mains power mode, 50 Hz / 60 Hz ± 0.25% in battery mode						
Power factor	0.9						
Voltage distortion	≤ 1% with liner load, ≤ 3% with non-linear load						
Crest factor	3:1						
Inverter overload capacity	105% < load ≤ 110% for 60 min, 110% < load ≤ 125% for 10 min, 125% < load ≤ 150% for 1 min, Load > 150% for 200 ms						
Bypass overload capacity	Load ≤135% for long term; < 1000% load for 100 ms						
SYSTEM							
Efficiency	96%						
Max. number of parallel	4 units						
Transfer time	0 ms						
Protection	Lack-phase protection, phase-error protection, short circuit protection, overload protection, over-temperature protection, battery low voltage protection, output over/low voltage protection, fans failure protection ect.						
Communications	RS485, dry contacts, SNMP						
Display	7 inches LCD touch screen						
OTHERS							
Operating temperature	0 ~ 40℃						
Storage temperature	- 40℃ ~ 70℃						
Humidity	0 ~ 95% (non-condensing)						
Altitude	≤1000 m. Above 1000 m, derating 1% for each additional 100 m						
Protection level	IP 20						
Noise level at 1 m	< 65 dB			< 68 dB			
Dimensions (W×D×H) (mm)	600×850×2000			1200×850×2000		1400×850×2000	2400×850×2000
Weight (kg)	333	365	439	680	795	1011	1540

•All specifications subject to change without notice.

DURABLE

6 kVA ~ 10 kVA (1:1)

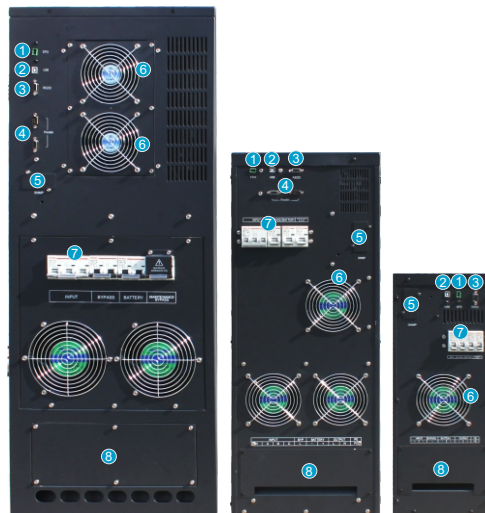
10 kVA ~ 30 kVA (3:1)

PF 0.8



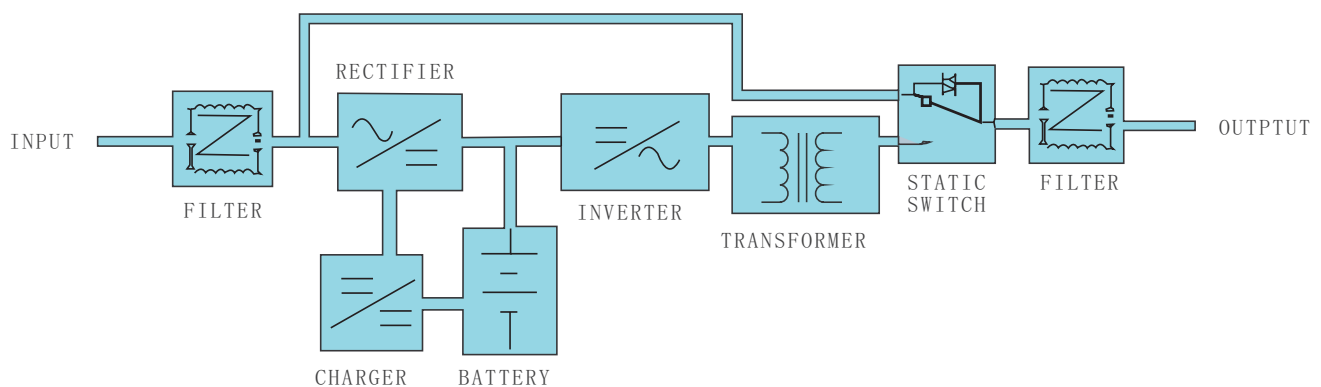
Features

- Single / single-phase, three / single-phase models with on-line double conversion technology
- DSP (Digital Signal Processors) technology
- Suitable for all kinds of loads (resistive, inductive and non-linear loads etc)
- High overload capability (up to 150%)
- Bypass dual DSP control design to enhance more reliability
- Supports dual input, hot standby in series
- Redundant & parallelable with advanced parallel current-sharing control technology
- Cold start and mains start function
- High charging capability: 2 A / 4 A / 6 A / 8 A / 10 A / 12 A selectable (standard), 14 A / 16 A / 18 A / 20 A / 22 A / 24 A selectable (options)
- Standard configuration with output isolation transformer
- Superior protection (surgers, short-circuit, overvoltages, undervoltages, overcharge, reverse connection protection etc)
- Advanced communications (RS232 and USB ports (standard), SNMP, dry contacts and RS485 (options)
- Other options (parallel kits, input isolation transformer, bypass isolation transformer and harmonic suppressor)



Rear Panel

1. EPO
2. USB
3. RS232
4. Parallel port
5. SNMP (optional)
6. Fan
7. Breaker
8. Terminal



Specifications

MODEL	DUR 6 (1:1)	DUR 10 (1:1)	DUR 10 (3:1)	DUR 15 (3:1)	DUR 20 (3:1)	DUR 30 (3:1)
Capacity	6 kVA 4800 W	10 kVA 8 kW	10 kVA 8 kW	15 kVA 12 kW	20 kVA 16 kW	30 kVA 24 kW
INPUT						
Rated voltage	220 / 230 / 240 Vac (1Φ+ N + PE)		380 / 400 / 415 Vac (3Φ+ N + PE)			
Voltage range	165 ~ 275 Vac		285 ~ 475 Vac			
Rated frequency	50 Hz / 60 Hz					
Frequency range	40 ~ 70 Hz					
Frequency tracking range	± 5% Hz					
BYPASS						
Rated voltage	220 / 230 / 240 Vac (1Φ+ N + PE)					
Overload	Load current < 150% rated current: long time running, 150% ≤ load current < 200% for 1 min, 200% rated current ≤ load current for 200 ms					
BATTERIES						
Battery voltage	192 Vdc					
Battery type	VRLA AGM maintenance-free lead based					
Number of battery	12 V × 16 pcs					
Charging voltage	216 Vdc					
EOD	168 Vdc					
Charging current	Default 8 A (2 A / 4 A / 6 A / 8 A / 10 A / 12 A selectable)					
OUTPUT						
Rated voltage	220 / 230 / 240 (1Φ+ N + PE)					
Power factor	0.8					
Waveform	Sinusoidal					
Rated frequency	50 Hz / 60 Hz (settable)					
Frequency precision	Mains mode: track bypass input in the state of synchronization Battery mode: 50 / 60 ± 0.1 Hz					
Voltage precision	± 1%					
Recovery time of transient voltage	< 20 ms					
Crest factor	3:1					
THDV	≤ 3% (linear load); ≤ 6% (non-linear load)					
Overload	Load ≤ 105%: long time running, 105% < load ≤ 125% for 10 min, 125% < load ≤ 150% for 1 min, 150% < load ≤ 200% for 200 ms, 200% < load for 100 ms					
OTHERS						
Transfer time	0 ms					
Protections	Short-circuit - overload - overvoltage - undervoltage - low battery - overtemperature					
Communications	RS232 / USB (standard); RS485 / SNMP / dry contacts (optional)					
Operating temperature	0 ~ 40℃					
Storage temperature	- 25℃ ~ 55℃ (without batteries);					
Relative humidity	0 ~ 95% (non-condensing)					
Operating altitude	≤ 1000 m (derating 1% for each additional 100 m)					
Noise level	< 60 dB (at 1 m)					
MTBF	MTBF > 200000 h					
MTTR	MTTR < 0.5 h					
IP rating	IP 20					
Dimensions (W×D×H) (mm)	210 × 585 × 590	310 × 600 × 880		400 × 815 × 1100		
Packaged dimensions (W×D×H) (mm)	328×716×805	430×710×1080		525×925×1305		
Net weight (kg)	54	96	130	201	230	277
Gross weight (kg)	64	108	142	216	245	292

- All specifications subject to change without notice.
- Custom-made specifications are acceptable.

DURABLE PLUS

10 kVA ~ 120 kVA (3:3)

PF 0.9



EA890 series UPS is a intelligent 3 phase in 3 phase out uninterruptible power supply, it adopts double transform high frequency PWM and high performance digital control technique (DSP), with perfect protection, super network management function, reasonable man-machine interface and a series of precision design, meets all high reliability requirements of uninterruptible power supply and integrates reliable, safety, maintainability characteristics of a new generation low frequency UPS.

Features

- Online double-conversion with full DSP control
- IGBT inverter with output isolation transformer
- 100% unbalance load capability
- Output power factor 0.9
- Generator compatible
- Support battery cold start and auto-restart when mains power is restored
- ECO mode operation for energy saving
- Superior protection
- 5.7 inches LCD touch screen, friendly human & machine interface
- Front access makes maintenance and replacement simplified (60 ~ 120 kVA)
- Intelligent self-diagnosing function, all kinds of failure protection, large capability of history records storage
- High MTBF (> 200,000 h)
- Low MTTR (< 0.5 h)
- Standard emergency power off (EPO)
- Standard RS232, RS485, dry contacts communication port
- Optional SNMP communication port
- Optional N+X redundancy parallel up to 6 units
- Optional input filter to improve input power factor

Specifications

MODEL	DUR+10	DUR+15	DUR+20	DUR+30	DUR+40	DUR+60	DUR+80	DUR+100	DUR+120
Capacity	10 kVA 9 kW	15 kVA 13.5 kW	20 kVA 18 kW	30 kVA 27 kW	40 kVA 36 kW	60 kVA 54 kW	80 kVA 72 kW	100 kVA 90 kW	120 kVA 108 kW
INPUT									
Rated voltage	380 V / 400 V / 415 Vac								
Voltage range	±25%								
Rated frequency	50 / 60 Hz								
Frequency range	50 / 60 Hz ±5 Hz								
Power factor	≥ 0.95 (with filter)								
Bypass voltage range	±20% (settable)								
Delayed start of rectifier	1 ~ 300 s (settable via display panel)								
ECO voltage range	±10% (settable)								
OUTPUT									
Voltage	380 V / 400 V / 415 Vac								
Voltage regulation	±1%								
Frequency	Synchronized with utility in mains mode; 50 / 60 Hz ±0.1% in battery mode								
Waveform	Sinusoidal								
Power factor	0.9								
Crest factor	3:1								
Total harmonic distortion (THDV)	≤ 2% (linear load); ≤ 5% (non-linear load)								
Transfer time	AC mode to battery mode: 0 ms								
	Inverter mode to bypass mode: 0 ms								
	Inverter mode to ECO mode: 5 ~ 10 ms								
overload	105%: long time running, 105% ~ 110% for 1 h, 110% ~ 125% for 10 min, 125% ~ 150% for 1 min, 150% ~ 200% for 200 ms, > 200% for 100 ms								
Slight adjustment of inverter output voltage	± 5 V								
BATTERIES									
DC Voltage	12 V × configured battery number (settable via display panel)								
Number of battery	28 ~ 32 pcs (settable)								
Charging current	10 A default / settable								
Charging	Three-stage charging, auto switch floating / equalizing charge								
Battery state display	Display battery backup time, battery remaining capacity								
Battery self-test	Settable periodic self-test; manually configurable test time and voltage								
SYSTEM									
Efficiency	In line mode: Max. 93%; ECO mode: ≥ 98%								
Max. Parallel numbers	6								
Protections	Short-circuit - overload - overvoltage - undervoltage - low battery - overtemperature - fan fault								
Communications	RS232 / RS485 / dry contacts (standard), SNMP (optional)								
IP rating	IP20								
EMI	EN62040-2								
EMS	IEC61000-4-2 (ESD)								
	IEC61000-4-3 (RS)								
	IEC61000-4-4 (EFT)								
	IEC61000-4-5 (surge)								
OTHERS									
Humidity	0~95% RH @ 0~40°C (non-condensing)								
Noise level	55 dB					60 dB	65 dB		
Dimensions (W × D × H) (mm)	400 × 800 × 1100					600 × 700 × 1500	700 × 800× 1700		
Packaged dimensions (W × D × H) (mm)	490 × 920 × 1250					700 × 800 × 1650	800 × 900 × 1850		
Net / Gross weight (kg)	158 / 200	165 / 207	175 / 217	210 / 252	260 / 302	460 / 480	590 / 620	630 / 660	690 / 720

- All specifications subject to change without notice.
- Custom-made specifications are acceptable.

DURABLE PLUS

160 kVA ~ 500 kVA (3:3)

PF 0.9



EA890 series UPS 160 ~ 500 kVA use double conversation technology with a very advanced design criteria improves the performance of components, minimizes the quantity of raw material used on the magnetic and reduces the number of semiconductors thus reducing servicing time and ownership costs. This UPS has high efficiency (> 93%) and input power factor (> 0.99) built-in output isolation transformer. The inverter transformer prevents the direct feed-through of the battery potential into the critical load and allows a very high rejection ratio of the power supply disturbances (spikes, surges etc).

Features

- Online double-conversion with DSP control
- IGBT rectifier and high input power factor (> 0.99)
- High efficiency 93%
- Output power factor 0.9
- Low input distortion: THD < 5%
- Generator compatible
- Output isolation transformer
- Inverter IGBT technology with high frequency communication
- High immunity to external disturbances
- Independent control on the three inverter phases
- High instantaneous overload capacity
- High MTBF (> 200,000 h)
- Capability of supplying distorted loads, containing output voltage distortion with crest factors
- Front access makes maintenance and replacement easy, save space
- Intelligent self-diagnosing function, all kinds of failure protection, large capability of history records storage
- Low MTTR (< 0.5h)
- Standard emergency power off (EP0)
- Standard RS232 / RS485 / dry contacts communication port
- Optional SNMP communication port
- Optional N+X redundancy parallel up to 6 units

Specifications

MODEL	DUR+ 160	DUR+ 200	DUR+ 250	DUR+ 300	DUR+ 400	DUR+ 500
Capacity	160 kVA 144 kW	200 kVA 180 kW	250 kVA 225 kW	300 kVA 270 kW	400 kVA 360 kW	500 kVA 450 kW
INPUT						
Rated voltage	380 V / 400 V / 415 Vac					
Voltage range	346 V ~ 456 V (full load) 304 V ~ 346 V (power derating 10%)					
Rated frequency	50 / 60 Hz					
Frequency range	50 / 60 Hz ± 5 Hz					
Power factor	≥ 0.99					
Total harmonic distortion (THDI)	≤ 3%					
Input current-limiting	1.1 times of rated current (0.1 ~ 1.1 settable)					
Rectifier delay start	10 s (1 ~ 300 settable)					
Bypass voltage range	± 20% (settable)					
OUTPUT						
Rated voltage	380 V / 400 V / 415 Vac					
Voltage regulation	± 1%					
Frequency	Synchronized with utility in mains mode; 50 / 60 Hz ± 0.1% in battery mode					
Waveform	Sinusoidal					
Crest factor	3:1					
Total harmonic distortion (THDV)	≤ 2% (linear load); ≤ 5% (non-linear load)					
Transfer time	0 ms					
Inverter overload capability	105% ~ 110% for 60 min; 110% ~ 125% for 10 min					
Slight adjustment of inverter output voltage	± 5 V					
BATTERIES						
DC voltage	600 Vdc (support 576 Vdc / 588 Vdc / 612 Vdc / 624 Vdc)					
Number of battery	50 pcs (support 48 / 49 / 51 / 52 pcs)					
Charging current	Charging rate (settable) × battery capacity (settable) × number of battery group (settable)					
Battery state display	Battery remaining capacity and backup time					
Battery self-test	Settable periodic self-test; manually configurable test time and voltage					
SYSTEM						
Efficiency	Line mode ≥ 93%, ECO mode ≥ 98%					
Max. parallel numbers	6					
Protections	Short-circuit, overload, overtemperature, overvoltage, undervoltage, battery low voltage and fan failure					
Communications	RS232 / RS485 / dry contacts (standard), SNMP (optional)					
IP rating	IP 20					
Display	5.7 inches LCD touch screen					
OTHERS						
Operating temperature	0 ~ 40℃					
Storage temperature	- 25℃ ~ 55℃ (without battery)					
Humidity	5% ~ 95% (non-condensing)					
Noise level at 1 m	< 65 dB				< 70 dB	
Dimensions (W×D×H) (mm)	800 × 860 ×1700	1210 × 860 × 1950			2380 × 860 × 1950	
Packaged dimensions (W×D×H) (mm)	900 × 1000 ×1950	1300 × 1000 × 2200			1300 × 1000 × 2200 (×2)	
Net / Gross weight (kg)	790 / 810	1135 / 1200	1275 / 1340	1355 / 1420	2090 / 2200	2300 / 2410

- All specifications subject to change without notice.
- Custom-made specifications are acceptable.

MODULAR MEGA ULTRA

25 kVA ~ 125 kVA
PF 1.0



Highlights

Power flexibility from 25 – 125 kVA

Utmost availability

Modular hot-swappable

Scalability & redundancy

Outstanding performances

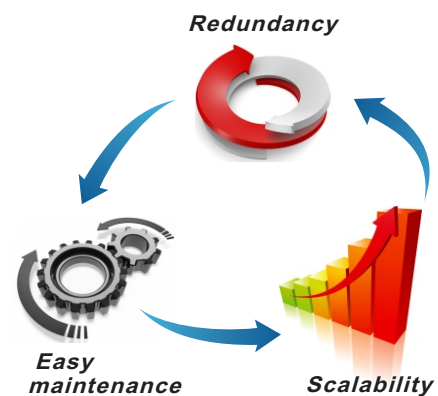
Low total cost of ownership (TCO)

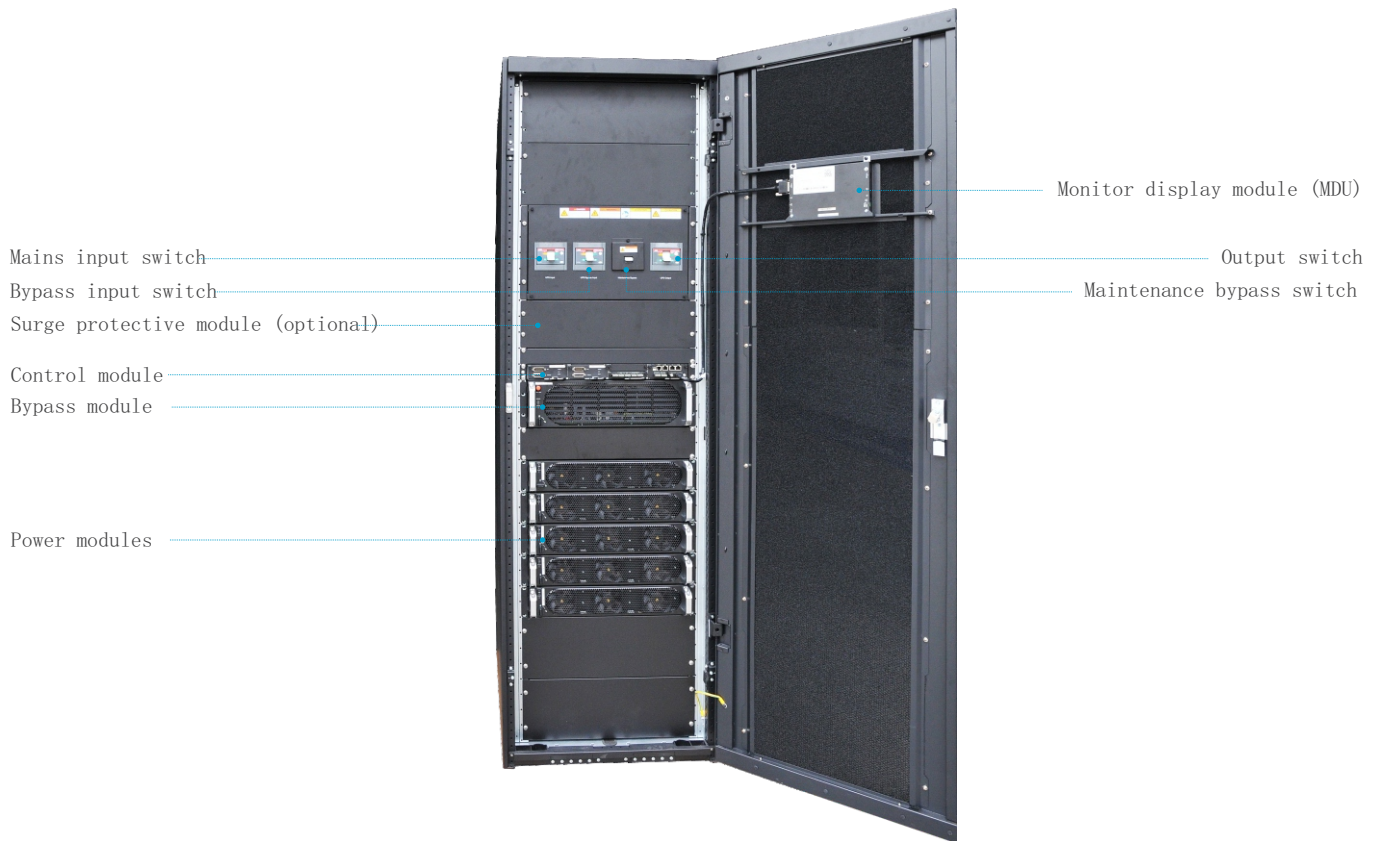
EA660 Series modular UPS is ideal for reliable, saving, intelligent and easy solutions. It ensures that a scalable, secure, high quality power supply is available for any critical high-density computer and IT environment applications, such as data centers and other critical loads.

EA660 Series (25 kVA ~ 125 kVA) UPS is a high-end modular UPS with latest DSP control technology and most reliable, famous brand components. It adopts a highly intelligent modular design, which mainly contains power modules, bypass module and control module, all modules support “plug & play” to simplify UPS servicing and maintenance. The available UPS power and redundancy level can expand vertically from 25 kVA / 25 kW to 125 kVA / 125 kW in one single power cabinet with flexible configuration for meeting different needs. Based on superior electrical performance, perfect hardware and software protection function, EA660 Series UPS can adapt to different grid environment and provides maximum protection and high quality power for critical loads in data centers or other important applications.

Features

- DSP microprocessor control technology
- True On-line, double conversion power protection, and with strong load capacity
- Modular Hot-swappable design for easy maintenance and scalability
- High efficiency up to 96.5% at most frequently-used load rate
- Inbuilt integrated PDU system simplifying installation and saving investment
- Output power factor 1.0, input power factor 0.99, input THDi < 3%, output THDv ≤ 1%
- 138 ~ 485 Vac wide input voltage range, 50 Hz / 60 Hz grid self-adaptive
- Soft-start technology improves generator matching up to 1:1.1
- Support two modes of frequency conversion: 50 Hz input / 60 Hz output and 60 Hz input / 50 Hz output
- Intelligent hibernation mode upgrading enables UPS to operate efficiently at low load rate
- Advanced parallel and redundancy technology, support 4 units connected in parallel
- Share battery pack in parallel operation, saving user's battery cost
- Flexible charger parameter and battery configuration settings, battery number 30 ~ 46 pcs selectable
- Intelligent battery management technology (Intelligent charge/discharge management and float charging voltage temperature compensation), extending battery lifespan
- Support cold start with battery and auto restart with mains power
- Self-aging function to simplify debugging and test on site
- Fault-tolerant design for fan system, taking 30% loads when 2 fans fail and 50% loads when 1 fan fails
- Superior hardware and software protection function, robust self-diagnostic function, and abundant event log for check
- 7 inches LCD touch screen, friendly human-machine interface
- System with built-in SNMP, supporting RS485 and dry contacts
- Back-feed protection function (optional)





Power Module



- ① Run indicator ② Alarm indicator ③ Fault indicator
④ Ready switch ⑤ Output port ⑥ Input port

Dimensions (W×D×H) (mm)	442×620×86
Weight (kg)	19.1 kg
Charging current	10 A
Capacity	25 kVA / 25 kW
Power density	17.2 W / inch ³

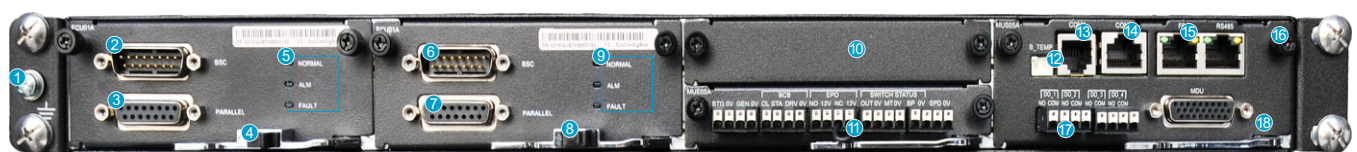
Bypass Module



- ① Battery cold start button ② Run indicator ③ Alarm indicator
④ Fault indicator ⑤ Ready switch ⑥ Signal port
⑦ Input and output port

Dimensions (W×D×H) (mm)	442×500×130
Weight (kg)	17.9 kg
Max. output power	125 kW

Control Module



- ① Ground terminal ② BSC port 1 ③ Parallel port 1 ④ Ready switch on ECM 1 ⑤ Indicators for ECM 1 ⑥ BSC port 2
⑦ Parallel port 2 ⑧ Ready switch on ECM 2 ⑨ Indicators for ECM 2 ⑩ Optional card subrack cover ⑪ Dry contact card ⑫ Battery temperature sensor port
⑬ COM1 port ⑭ COM2 port ⑮ Fast Ethernet (FE) port ⑯ RS485 port ⑰ Dry contacts ⑱ MDU port

Specifications

MODEL	MODULAR MEGA ULTRA 125
Rated capacity of system cabinet	125 kVA
Number of power module	5
Rated capacity of power module	25 kVA
INPUT	
Input wiring	Three-phase five-wire (3 Φ + N + PE)
Rated voltage	380 Vac / 400 Vac / 415 Vac
Voltage range	135 ~ 305 Vac (linear derating), 305 ~ 485Vac (no derating)
Frequency range	40 ~ 70 Hz
Input power factor	Full load > 0.99; half load > 0.98
THDi	< 3% (linear full load); < 5% (non-linear full load)
Battery voltage	$\pm$ 240 Vdc ($\pm$ 180, $\pm$ 192, $\pm$ 204, $\pm$ 216, $\pm$ 228, $\pm$ 252, $\pm$ 264, $\pm$ 276, selectable)
Number of battery	40 pcs 12 V batteries (30, 32, 34, 36, 38, 42, 44, 46 pcs selectable)
OUTPUT	
Output wiring	Three-phase five-wire (3 Φ + N + PE)
Rated voltage	380 Vac / 400 Vac / 415 Vac
Output voltage regulation accuracy	$\pm$ 1%
Output frequency accuracy	Synchronized with utility in mains power mode; 50 Hz / 60 Hz $\pm$ 0.05% in battery mode
Output power factor	1
Output waveform distortion (THDv)	$\leq$ 1% (linear load); $\leq$ 4% (non-linear load)
Crest factor	3:1
Inverter overload capacity	105% < load $\leq$ 110% for 60 min, 110% < load $\leq$ 125% for 10 min, 125% < load $\leq$ 150% for 1 min, load > 150% for 300 ms
Bypass overload capacity	Temperature $\leq$ 30 $^{\circ}$ C, load $\leq$ 135% for long term; temperature $\leq$ 40 $^{\circ}$ C, load $\leq$ 125% for long term; load >1000% for 0.1 s
SYSTEM	
Efficiency	Up to 96%
Max. number of parallels	4
Transfer time	0 ms
Protection	Lack-phase protection, phase sequence error protection, short circuit protection, overload protection, over-temperature protection, battery low voltage protection, output undervoltage protection, fans failure protection etc.
Communications	RS485, dry contacts, SNMP
Display	7 inches LCD touch screen
ENVIRONMENT	
Operating temperature	0 $^{\circ}$ C ~ 40 $^{\circ}$ C
Storage temperature	- 40 $^{\circ}$ C ~ +70 $^{\circ}$ C
Relative humidity	0% RH ~ 95% RH (non-condensing)
Altitude	$\leq$ 1000 m, above 1000 m, derating 1% for each additional 100 m
Protection level	IP 20
Noise	$\leq$ 65 dB (at 1 m)
OTHERS	
Cabinet dimensions (W×D×H) (mm)	600×850×2000
Module dimensions (W×D×H) (mm)	442×620×86
Cabinet weight (kg)	182.7
Power module weight (kg)	19.1

- All specifications subject to change without notice.
- Custom-made specifications are acceptable.

MODULAR MEGA PLUS

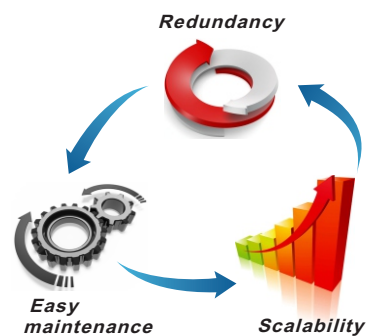
50 kVA ~ 800 kVA
PF 0.9

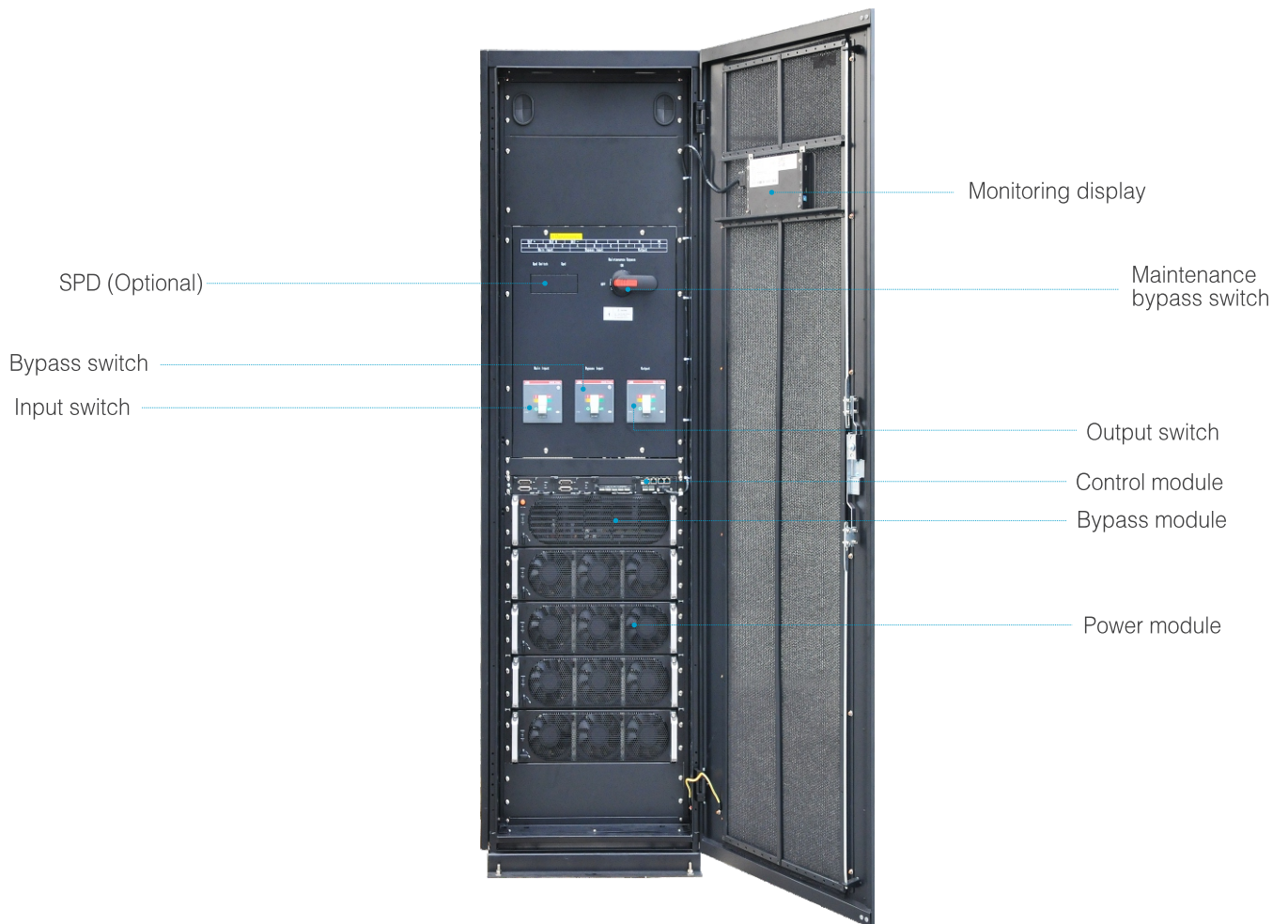


Highlights	
Power flexibility from 50 kVA - 800 kVA	EA660 modular UPS is ideal for reliable, saving, intelligent and easy solutions. It ensures that a scalable, secure, high quality power supply is available for any critical high - density computer and IT environment applications, such as data centers and other critical loads.
Modular hot-swappable & Scalability	
High MTBF and low MTTR	EA660 modular UPS is a scalable three-phase / three-phase uninterruptible power supply system with DSP technology and provides true on - line double conversion power protection. The available UPS power and redundancy level can expand vertically from 50 to 800 kVA / 720 kW in one single power cabinet, and four power cabinets can be connected in parallel, increasing the capacity up to 3.2 M kVA. It features modular hot-swappable design, all modules support “plug & play”, including power modules, bypass module, and control module, simplifies UPS servicing and maintenance.
High efficiency	
High adaptability	

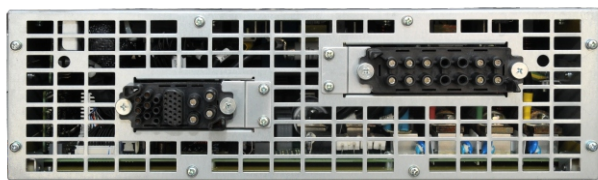
Features

- DSP digital control technology
- Pure sine wave double conversion, with strong load capacity
- Flexible modularity and easy scalability with all hot-swappable module design
- High efficiency at low load rate: 96% at 40% rated load and 95% at 20% rated load
- High power density of 50 kVA / 3U power module
- High grid adaptability, strong load adaptability and strong overload capability
- Small footprint (500 kVA system only 1.02 m² footprint)
- Inbuilt integrated PDU system, easy installation and saving investment
- Input power factor > 0.99, THDi < 3%, environment friendly and high - efficiency and energy - saving
- Wide input voltage range, 50 Hz / 60 Hz frequency auto-sense, adapt to all kinds of grid
- Soft-start technology improves generator matching up to 1:1.1
- Support two modes of frequency conversion: 50 Hz input / 60 Hz output and 60 Hz input / 50 Hz output
- Intelligent hibernation design enables UPS to operate efficiently at low load rate
- Advanced parallel expansion technology, support 4 units in parallel
- Share battery pack in parallel operation, saving user's battery cost
- Flexible charger parameter and battery configuration setting, numbers of battery 30 ~ 46 pcs selectable
- Intelligent battery management (Intelligent charge/discharge management and float charging voltage temperature compensation), extending battery lifespan
- Support battery cold start and utility self boot
- Self-aging function, easy debugging and test on site
- Fault-tolerant design for fan system: 30% load can be driven when 2 fans fail and 50% load when 1 fan fails
- Front accessible maintenance, top/bottom cable entry compatible
- Complete hardware and software protection function, robust self - diagnostic function, and abundant event log for check
- 7 inches LCD touch screen, friendly human - machine interface
- Monitoring unit with built-in SNMP, supports RS485 and dry contacts





Power Module



Bypass Module



Control Module



Specifications

MODEL	200	300	400	500	600	800
Rated capacity	200 kVA	300 kVA	400 kVA	500 kVA	600 kVA	800 kVA
Numbers of power modules	4	6	8	10	12	16
Rated capacity of power module	50 kVA					
INPUT						
Input wiring	3 Ph + N + PE					
Rated voltage	380 / 400 / 415 Vac					
Voltage range	138 ~ 485 Vac (305 ~ 485 Vac without power downgrading; 138 ~ 305 Vac with linear downgrading 40%)					
Input frequency	40 ~ 70 Hz					
Power factor	≥ 0.99					
Current distortion	< 3%					
BATTERIES						
Battery voltage	± 240 Vdc (±180, ± 192, ± 204, ± 216, ± 228, ± 252, ± 264, ± 276 selectable)					
Number of battery	40 pcs 12 V batteries (30 / 32 / 34 / 36 / 38 / 42 / 44 / 46 pcs selectable)					
OUTPUT						
Output wiring	3 Ph + N + PE					
Rated voltage	380 / 400 / 415 Vac ±1%					
Frequency	Synchronized with utility in mains power mode: 50 Hz / 60 Hz ± 0.25% in battery mode:					
Power factor	0.9					
Voltage distortion	≤ 1% with liner load / ≤ 3% with non-linear load					
Crest factor	3:1					
Inverter overload capacity	105% < load ≤ 110%: transfer to bypass in 60 min 110% < load ≤ 125%: transfer to bypass in 10 min 125% < load ≤ 150%: transfer to bypass in 1 min Load > 150%: transfer to bypass in 200 ms					
Bypass overload capacity	Load ≤135% for long term; < 1000% load for 100 ms					
SYSTEM						
Efficiency	96 %					
Max. number of parallel	4 units					
Transfer time	0 ms					
Protection	Short circuit protection, overload protection, over-temperature protection, battery low voltage protection, output over/low voltage protection, fans failure protection etc.					
Communications	RS485, dry contacts, SNMP					
Display	7 inches LCD touch screen					
OTHERS						
Operating temperature	0 ~ 40℃					
Storage temperature	- 40℃ ~ 70℃					
Humidity	0 ~ 95% (non-condensing)					
Altitude	≤ 1000 m. Above 1000 m, derating 1% for each additional 100 m					
Protection level	IP 20					
Noise level at 1 m	< 65 dB	< 68 dB				
Cabinet dimensions (W×D×H) (mm)	600×850×2000	1200 × 850 × 2000			1400 × 850 × 2000	2400 × 850 × 2000
UPS module dimensions (W × D × H) (mm)	442 × 620 × 130					
Cabinet weight (kg)	233	415		465	617	1025
UPS module weight (kg)	32.5					

•All specifications subject to change without notice.

Outdoor UPS

Pure Sine Wave Line Interactive
500 VA ~ 3000 VA



Pure sine wave interactive outdoor UPS is specially designed for outdoor communication equipment, networking equipment, traffic control system and other applications of city corner, countryside, or mountainous area. High temperature resistance, frost resistance, corrosion resistant, dust prevention, and water resistance are based. With advanced functions like wide range of input voltage and frequency, high reliability, energy saving, environmental protection, anti-thunder, remote control, remote detection, etc. Our UPS can guarantee stable power supplying to communication, networking, traffic control and other devices. It is a type of ideal helpmate for running these important outdoor devices.

Features

- Strong environmental adaptability
- High reliability, energy saving, environmental protection
- Wide adaptability to power grid
- Unattended and intelligent monitoring (optional)
- Inverter isolation & pure sine wave technology
- Online UPS protection function
- Intelligent no-load shutdown (optional)
- Auto restart when mains power is restored



Specifications

MODEL	500 VA	1000 VA	2000 VA	3000 VA
Capacity	300 W	600 W	1200 W	1800 W
DISPLAY				
Panel indicator	LED / LCD (customized)			
MAINS STATES				
Applications	PC, banking system, ATM, medical system			
Input voltage range	100 Vac / 110 Vac / 115 Vac / 120 Vac / 200 Vac / 220 Vac / 230 Vac / 240 Vac ± 25%			
Input frequency range	45 ~ 65 Hz (over-frequency automatically transfer to inverter power)			
Stable output voltage range	174 ~ 216 Vac / 190 ~ 238 Vac / 199 ~ 250 Vac / 210 ~ 260 Vac ±10 Vac for 200 Vac / 220 Vac / 230 Vac / 240 Vac 87 ~ 108 Vac / 96 ~120 Vac / 100 ~125 Vac / 105 ~ 130 Vac ±10 Vac for 100 Vac / 110 Vac / 115 Vac / 120 Vac			
Input P.F. (AC/DC)	98%			
Efficiency	Mains mode ≥ 96%			
Mains overload	110% for 120 s, 125% for 60 s, 150% for 10 s			
Short circuit	Input fuse			
INVERTER STATES				
Inverter output voltage	100 Vac / 110 Vac / 115 Vac / 120 Vac / 200 Vac / 220 Vac / 230 Vac / 240 Vac± 5% (battery ≥ 11 Vdc)			
Output frequency	50 Hz / 60 Hz ±1% frequency adaptive			
Output power factor	≥ 0.6			
Waveform distortion	Linear load ≤ 5%			
Transfer time	≤ 10 ms			
Efficiency	Inverter mode ≥ 80%			
Inverter overload	110% for 60 s, 125% for 10 s, 150% for 5 s			
No-load shut-off (option)	Load < 5% auto shutdown in 1 min			
Short circuit	the system automatically shut down			
ALARM				
Mains abnormal	1 / 4 s, be silent in 40 s			
Low battery	1 / 0.2 s			
Overload	1 / 1 s			
BATTERIES				
DC voltage	24 Vdc		48 Vdc	
Inner battery space	2 × 12 V 38 Ah / 120 Ah		4 × 12 V 38 Ah / 120 Ah	4 × 12 V 120 Ah
Charging current	Max. 12 A			
OTHERS				
Installing	Floor standing or wall-mounted			
Surge protection	Class C			
Communications	Dry contacts / RS232 / USB / SNMP (optional)			
Safety	IEC62040-2:2006, GB4943-2001			
EMC	EA50091-2; IEC62040-1:2006; EA61000-3-2:2006; EA61000-3-3:2008			
Protection grade	IP 55			
Environmental temperature	0℃ ~ 50℃			
Environmental humidity	10% ~ 95% (no cooling)			
Noise	≤ 50 dB			
Weight (kg)	17.5 / 36.7		36.7	60.7
Dimensions (W × D × H) (mm)	430 × 245 × 550 / 470 × 245 × 900		470 × 245 × 900 / 470 × 460 × 900	470 × 460 × 900
Packaged dimensions (W × D × H) (mm)	500 × 335 × 636 / 540 × 330 × 980		540 × 330 × 980 / 550 × 560 × 950	550 × 560 × 950

•All specifications subject to change without notice.

STABILIZER AVR

500 VA ~ 5000 VA



500VA ~ 1000VA

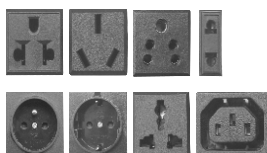


500VA ~ 5000VA

AVR series AC automatic regulators apply the advanced control technology with well qualified components. It has the features of wide input voltage compatibility, high reliability, output voltage stabilizing, energy saving etc.; it has over voltage and low voltage protection and delayed output protection etc.. it could supply stabilized power to lights, TVs, air-conditioners, refrigerator, computers and duplicating machines and other household equipment in schools, offices, hotels, meeting rooms where the stabilized voltage is needed.

Features

- Classic series, EI transformer, relay type
- Input and output voltage LED / Meter / LCD display
- High temperature protection
- Circuit breaker protection
- Efficiency: 98%



Optional sockets



Rear Panel

1. AC Input
2. Output
3. Fuse
4. ON/OFF

Specifications

MODEL		500 VA	800 VA	1000 VA	1500 VA	2000 VA	3000 VA	5000 VA
INPUT								
Phase		Single Phase + N + GND						
Voltage range		140 Vac ~ 270 Vac (option: 100 ~ 270 V)						
OUTPUT								
Voltage range		200 ~ 240 V (no load)						
Frequency		50 / 60 Hz						
Overvoltage protection		250 V±5 V (overvoltage indicator on, output off)						
Undervoltage protection		180 V±5 V (overvoltage indicator on, output off)						
OTHERS								
Efficiency		≥ 95%						
Display mode		LED indicator light; pointer voltmeter / LCD display (selectable)						
Input / output setting		Plug / Socket						Terminal0 blocks
Time-delay		short delay : < 3 s; long delay: 3 min						
Output short circuit protection		fuse / breaker						
Waveform distortion		No additional waveform distortion						
Insulation resistance		> 2 MΩ						
Dielectric strength		Low frequency sine voltage 1500 V for 1 minute (without phenomena of breakdown and flashover)						
Ambient temperature		-10°C ~ ±40°C						
Relative humidity		≤ 95%						
Working		Continuing working						
Dimensions (W × D × H) (mm)	Metal case	125 × 230 × 135			143 × 258 × 185		210 × 291 × 201	229 × 345 × 220
	Plastic case	100 × 215 × 160			---			
Net weight (kg)	Metal case	2. 5	2. 9	3. 1	5. 4	6. 5	9. 2	13. 0
	Plastic case	2. 1	2. 5	2. 7	---			
Packaged dimensions (W × D × H) (mm)	Metal case	176 × 280 × 207			192 × 310 × 252		262 × 343 × 273	271 × 396 × 303
	Plastic case	145 × 265 × 229			---			
Gross weight (kg)	Metal case	2. 8	3. 2	3. 4	5. 6	6. 7	9. 6	13. 55
	Plastic case	2. 4	2. 8	3. 0	---			
Quantity / 20 ft		2400 pcs			1600 pcs		900 pcs	730 pcs

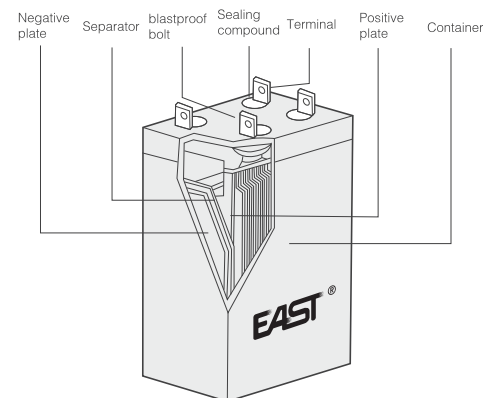
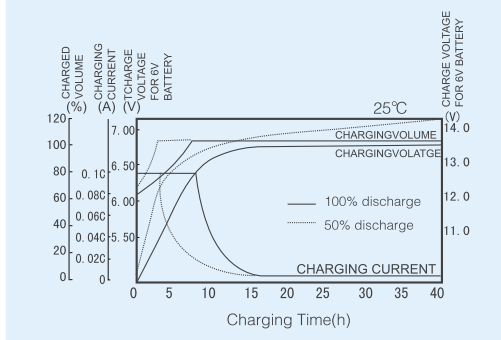
- All specifications subject to change without notice.
- Custom-made specifications are acceptable.

Battery

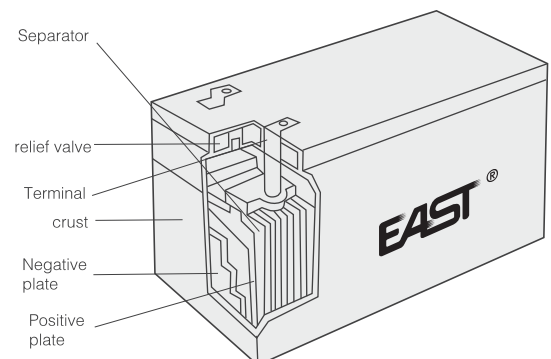
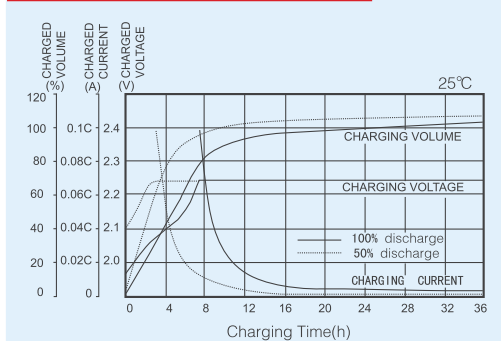


EAST Valve-regulated sealed lead-acid battery is featured with high energy, long life, zero pollution, maintenance-free and safety. It adapts modern updated design, manufacturing process, advanced lead-calcium electrode plate, super-fine glass fiber separators and airproof design. The product mainly includes lead liquid battery for the NP series (12V), GM series (2V); colloidal battery for the NPJ series (12V), GMJ series (2V).

NP series Charging Characteristics



GM series Charging Characteristics



Specifications

NP series

Model	Rate voltage	Rate capacity	Dimensions				Weight	Bolt
			W	D	H	Total H		
NP4-12	12	4	90	70	101	107	1.45	T1
NP7-12	12	7	151	65	94.5	100	2.15	T2
NP8-12	12	8	151	65	94.5	100	2.35	T2
NP9-12	12	9	151	65	94.5	100	2.5	T2
NP12-12	12	12	151	98	95	101	3.8	T2
NP17-12	12	17	181.5	77	167.5	167.5	5.32	T3
NP24-12	12	24	166	175	125	125	7.6	M5
NP38-12	12	40	197.5	165.5	170	170	12.8	M6
NP65-12	12	65	350	167	179	179	20.4	M6
NP100-12	12	100	339	173	214.5	220	28.0	M8
NP120-12	12	120	410	176	224	224	33.5	M8
NP150-12	12	150	482	170	240	240	44.5	M8
NP200-12	12	200	522	238	218	223	59.1	M8
NP230-12	12	230	520	269	203	208	72.6	M8

GM series

Model	Rate voltage	Rate capacity	Dimensions				Weight	Bolt
			W	D	H	Total H		
GM100-2	2	100	170	72	205	212	6.0	M6
GM200-2	2	200	170	110	328	350	13.6	M8
GM300-2	2	300	170	150	328	350	18.7	M8
GM400-2	2	400	210	175	330	350	25.5	M8
GM500-2	2	500	240	175	330	350	30.0	M8
GM600-2	2	600	302	175	330	350	38.5	M8
GM800-2	2	800	410	175	330	351	51.0	M8
GM1000-2	2	1000	475	175	328	350	60.0	M8
GM1500-2	2	1500	403	354	339	349	96.5	M8
GM2000-2	2	2000	490	350	345	382	125.0	M8
GM3000-2	2	3000	710	350	345	382	210.0	M8

NPJ series

Model	Rate voltage	Rate capacity	Dimensions				Weight	Bolt
			W	D	H	Total H		
NPJ24-12	12	24	166	175	125	125	8.0	M5
NPJ38-12	12	26	197	165	172	172	14.5	M5
NPJ50-12	12	50	229	138	211	216	18.2	M6
NPJ65-12	12	65	350	166	174	174	23.4	M6
NPJ100-12	12	100	339	174	216	222	32.0	M8
NPJ120-12	12	120	407	175	210	240	39.7	M8
NPJ150-12	12	150	484	170	240	240	46.2	M8
NPJ200-12	12	200	520.5	240	219	224	65.0	M8

GMJ series

Model	Rate voltage	Rate capacity	Dimensions				Weight	Bolt
			W	D	H	Total H		
GMJ200-2	2	200	170	110	328	337	14.2	M8
GMJ300-2	2	300	170	150	328	337	19.1	M8
GMJ400-2	2	400	210	175	330	339	25.5	M8
GMJ500-2	2	500	240	175	330	340	31.7	M8
GMJ600-2	2	600	300	175	330	340	38.8	M8
GMJ800-2	2	800	410	175	330	340	50.6	M8
GMJ1000-2	2	1000	475	175	328	338	61.6	M8
GMJ1500-2	2	1500	403	354	339	349	98.2	M8
GMJ2000-2	2	2000	490	350	339	349	132	M8
GMJ3000-2	2	3000	709	350	337	349	190	M8

Monitoring Software UPSmart



Product Introduction

UPSmart is monitoring software for single UPS developed on RS232/USB interface. When mains input is normal, UPSmart can display the input voltage, output voltage, frequency, load, battery capacity and many other parameters with real time data curves. When mains input is abnormal or other fault occurs, UPSmart can save the document automatically, make system turned off safely and automatically send alarm information by email or SMS messages. With UPSmart, users don't need to worry about any loss to the system cause by the abnormal mains power; users can make the necessary processing at the first time, and learn the historical operation information of equipment through query historical data and events saved in the system.

Application platform

Windows 98; Windows NT; Windows 2000; Windows ME; Windows XP; Windows 2003; Windows Vista; Windows 7

Features

- Working status: mains, battery, inverter, bypass, self test, etc.
- Real time monitoring: voltage, frequency, load, battery and other information
- Automatically securely saves data for common applications before shut down the system
- Multiple test methods for UPS diagnostic testing
- Automatic sequence turning on / off time of computer and UPS is configurable
- Historical parameters, operations and events can be inquired
- Local alarm and remote alarm functions are available
- Auto restart is settable

SNMP Card



Internal SNMP card

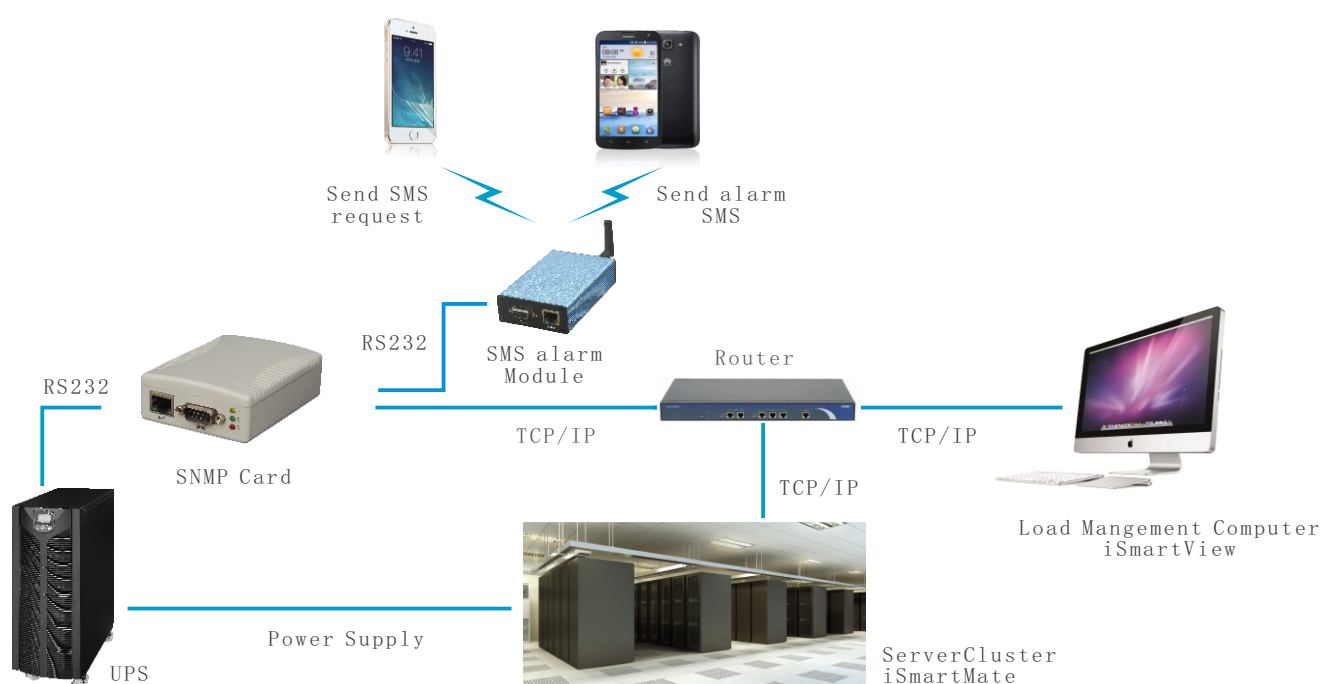


Internal SNMP card



External SNMP card

Application schematic diagram





Sales Office: Unit14, No.14, 16 St., South Gandi St., Tehran, Iran

+(98)21 888 500 14  +(98)21 888 568 14

Central Office: Level 8 Park Building, No. 114, Park Building, Valiasr St., Tehran, Iran

+(98)21 759 811 74  +(98)21 759 817 70

www.adibcorp.com  info@adibcorp.com