

ULA On-line Pro Series

6KVA ~ 10KVA
PF0.9



Features

High Reliability

- Advanced True On-line Double Conversion technology and DSP digital control is applied to rectifier and inverter
- Fan speed varies intelligently with temperature, reducing noise and increasing its service life
- Rear ventilation design, fan operating in slow speed, UPS being able to work for a long time in harsh environment
- Effective software and hardware protection function, powerful self-diagnostic function
- Higher reliability than single UPS system with advanced digital parallel technology N+X (X up to 3 sets)

High Availability

- Wide input voltage range, self-adaptive 50Hz /60 Hz grid system, suitable for various grid environments
- Linear derating in low voltage input, reducing battery discharging times, extending the service life of battery
- Output power factor improved from 0.8 to 0.9, load-carrying capacity increased by 13%
- Flexible battery configuration for using 14/16/18/20 pcs batteries, saving costs for customers
- Doubling the battery charging speed, 90% capacity restored in 4 hours for standard model UPS
- Ability to switch on the UPS with batteries in the absence of mains power
- UPS power supply mode has no transfer time to ensure uninterruptible power
- Configurable switching time from battery mode to mains mode when mains power is restored, reducing the impact on power grid or generator
- Frequency conversion mode: 50Hz input / 60Hz output or 60Hz input / 50Hz output

High Usability

- LCD+LED display, multi-functional keys operation, friendly human-machine interface
- Powerful background software for parameters configuration and online updating
- Compact internal layout, miniaturized the complete unit for small footprint

High Intelligence

- Advanced multi-platform communications: RS232,USB,RS485,SNMP Card and dry contact communication interfaces with Software for Monitoring and Shutdown; Web browser management
- Intelligent battery management, automatic floating / equalizing charge control, charger dormancy control, improving the reliability of charger and extending battery service life by 50%

Energy Conservation and Environment Protection

- Active power factor correction (APFC), input power factor up to 0.99
- Work efficiency up to 98% in ECO mode
- Auto power ON/OFF according to the load capacity set by users

Options and Accessories

- Standard RS232, optional USB, maintenance bypass, parallel function, battery temperature compensation, SNMP card, RS485 card, dry contacts card, EMD environmental sensors and SMS alarms

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 (for SNMP Card / AS400/ RS485)
9. USB (optional)
10. RS232
11. EPO (Emergency Power Off)
12. Parallel card (optional)
13. Battery temperature compensation (optional)



Long time model

Standard model

Specifications

| MODEL | ULA 602C | ULA 103C |
|--|--|---|
| Capacity | 6KVA/5400W | 10KVA/9000W |
| INPUT 1 PHASE (2 Wires + PE) | | |
| Rated voltage | 208V/220V/230V/240Vac | |
| Voltage range | 110Vac ~ 300Vac depending on loads; [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 1 PHASE (2 Wires + PE) | | |
| 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 VRLA Maintenance Free sealed lead -acid battery | | |
| DC voltage | 192 Vdc (168 / 192 / 216 / 240 Vdc optional) | |
| Battery capacity | 12V/7Ah * 16pcs | 12V/9Ah * 16pcs |
| Back - up time | 7-10 minutes at full loads | |
| Recharge time | 90% capacity restore in 4 hours | |
| SYSTEM | | |
| EFFICIENCY | ≥ 93%, ECO mode 98% | |
| Display | LCD+LED | |
| Alarms | Battery mode, battery voltage low, fans fault etc. | |
| Maximum Parallel numbers | 6 | |
| EMI | IEC/EN62040-2 | |
| EMS | IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (Surge) | |
| COMMUNICATIONS | | |
| RS232/USB/ SNMP card/ RS485/ Dry contact | Including Software (UPSmart or iStar) for Monitoring and Shutdown; Web browser management. Support Windows* 98/ 2000/ 2003/ XP/ Vista/ 2008/ 7/ 8/ 10... | |
| OTHERS | | |
| Humidity | 20 ~ 90% RH @ 0 ~ 40°C (non-condensing) | |
| Noise level | ≤ 55 dB (1m) | |
| Dimensions (W × D × H) (mm) | 191 x 465 x 711 (S) / 191 x 465 x 350 (H) | 191 x 495 x 711 (S) / 191 x 495 x 350 (H) |
| Packaged dimensions (W × D × H) (mm) | 310 x 654 x 941 (S) / 318 x 595 x 475 (H) | 310 x 685 x 941 (S) / 318 x 617 x 475 (H) |
| Net weight (kg) | 53 (S)/ 14.5 (H) | 62 (S)/ 16.5 (H) |
| Gross weight (kg) | 61 (S)/ 16 (H) | 70 (S)/ 18 (H) |

● 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.

ULA On-line Rack Mount Smart UPS

1KVA ~ 3KVA
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 (110V ~ 300Vac) and frequency range (40 ~ 70Hz)
- Auto sensing frequency
- 50/60Hz 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)

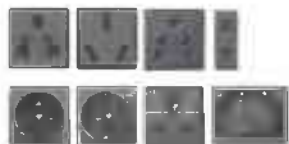
- Linear derating in low voltage input reducing battery discharging times
- Settable delayed start when power is restored
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, EOD, auto-start, bypass mode, ECO mode and frequency conversion mode
- Multi-platform communications: 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

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



Optional sockets

Specifications

| MODEL | ULA102RT | | | ULA202RT | | | ULA302RT | | |
|--------------------------------------|---|----------|------|-----------------|----------|-----------------|-----------------|--|-----------------|
| 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%: transfer to bypass in 1 min; 125% ~ 150%: transfer to bypass in 30 s; > 150%: transfer to bypass in 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 | | | | | | | | |
| COMMUNICATIONS | | | | | | | | | |
| RS232 (standard) / USB (optional) | Supports Windows® 98 / 2000 / 2003 / XP / Vista / 2008 / Windows® 7 / 8 / 10 | | | | | | | | |
| SNMP (optional) | Power management from SNMP manager and web browser | | | | | | | | |
| OTHERS | | | | | | | | | |
| Operating temperature | 0 ~ 40°C | | | | | | | | |
| Relative Humidity | 0 ~ 90% (non-condensing) | | | | | | | | |
| Noise level | ≤ 50 dB (1m) | | | | | | | | |
| 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 × 198 | | 545 × 592 × 198 | 545 × 782 × 198 | 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 |

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1KVA ~ 3KVA

PF 0.9

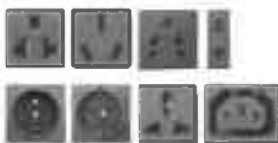


Features

- High frequency and true double-conversion
- DSP (Digital Signal Processors) technology
- Input power factor correction (PFC)
- Wide input voltage range (110V~300V)
- Output power factor 0.9
- Cold start
- Auto sensing frequency
- ECO mode operation for energy saving
- Selectable output voltage via LCD
- Output bypass settable via LCD
- Power-on self test
- Advanced battery management (ABM)
- Short circuit and overload protection
- Automatic charging in OFF mode
- Auto control fan speed when loads varies
- Standard RS232 communication port and RJ45 protection
- Optional USB / SNMP communication port
- Optional emergency power off (EPO)
- Optional extension battery bank
- Optional built-in isolation transformer

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 | ULA 102C | ULA 202C | ULA 302C |
|--------------------------------------|---|-----------------|-----------------|
| Capacity | 1KVA/900W | 2KVA/1800W | 3KVA/2700W |
| 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%: transfer to bypass in 1 min, 125% ~ 150%: transfer to bypass in 30 s; > 150%: transfer to bypass in 300 ms | | |
| EFFICIENCY | | | |
| Mains mode | ≥ 90% | ≥ 91% | ≥ 92% |
| Battery mode | ≥ 85% | ≥ 86% | ≥ 87% |
| ECO mode | ≥ 95% | ≥ 96% | ≥ 97% |
| BATTERIES | | | |
| DC voltage | 36V | 72V | 96V |
| Inbuilt battery | 3 x 7Ah | 6x 7Ah | 8 x 7Ah |
| Charging current (max.) | 1A | 1A | 1A |
| Recharge time | 8 h | | |
| Back-up time | 10 minutes (full loads)/ 22 minutes (half loads) | | |
| ALARMS | | | |
| Utility failure | 4 s per beep | | |
| Low battery | 1 s per beep | | |
| Overload | 1 s twice beep | | |
| UPS fault | Long beep | | |
| COMMUNICATIONS | | | |
| RS232 (standard) / USB (optional) | Supports Windows® 98 / 2000 / 2003 / XP / Vista / 2008 / Windows® 7 / 8 / 10 | | |
| SNMP (optional) | Power management from SNMP manager and web browser | | |
| OTHERS | | | |
| Operating temperature | 0 ~ 40°C | | |
| Relative Humidity | 0 ~ 90% (non-condensing) | | |
| Noise level | ≦ 50 dB (1 m) | | |
| Dimensions (W x D x H) (mm) | 144 x 414 x 214 | 191 x 418 x 335 | 191 x 464 x 335 |
| Packaged dimensions (W x D x H) (mm) | 231 x 492 x 316 | 318 x 533 x 471 | 320 x 573 x 471 |
| Net weight (kg) | 13 | 25.7 | 32 |
| Gross weight (kg) | 14.2 | 27.4 | 34 |

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

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