*Working in Power*

# ZP120 Series

## online UPS

1, 2, 3kVA (PF0.9) UPS
6, 10, 15, 20kVA (PF1) UPS

- LOCAL AREA NETWORKS (LAN)
- SERVERS
- DATA CENTERS
- INTERNET CENTERS (ISP/ASP/POP)
- INDUSTRIAL PLCS
- EMERGENCY DEVICES (LIGHTS, ALARM)
- ELECTROMEDICAL DEVICES
- TELECOMMUNICATION DEVICES
- INDUSTRIAL APPLICATION

# ZP**120i** & ZP**120+** Series

In today's world UPS is not enough for basic power protection, but needs to be more robust, high density compact, ECO friendly, provide flexible power protection to support mission critical equipment; electro-medical equipment; light industrial application. **G-TEC** is proud to introduce the upgraded* UPS that can deliver clean, safe and regulated power supply to protect your critical mission equipment, so as to safeguard your valuable equipment and critical data from any abnormal power disturbances, such as surges, blackouts and lightning strikes. **ZP120i UPS** power capacity is available from **1kVA to 3kVA** UPS; and the high efficiency unity power factor (PF1) model ZP120+ capacity from **6-10-15-20kVA (1/1)** & **10-15-20kVA (3/1).**

## COMMON FEATURES:

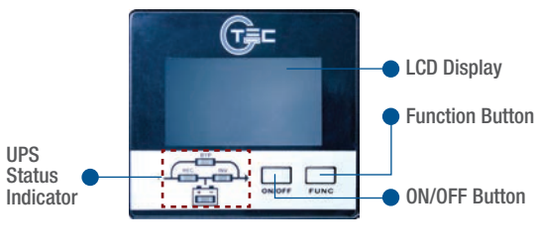
- Digital Signal Processor (DSP) Control
- New Digital Control Battery charger (available from 6 to 20kVA UPS)

- Cold Start Function
- Strongest performance
- High Power Density
- Flexible Settings
- Internal components designed for stressing environment
- Highest efficiency with low heat dissipation
- Long run time Model with optional battery and dedicated super charger (KS Version)

**1kVA to 3kVA 1/1**

### STRONGEST PERFORMANCE

- DSP technology fully controlled
- Self monitoring and fault diagnosis
- Lowest output voltage distortion
- Transient voltage surge suppressor (TVSS)
- Short circuit protection

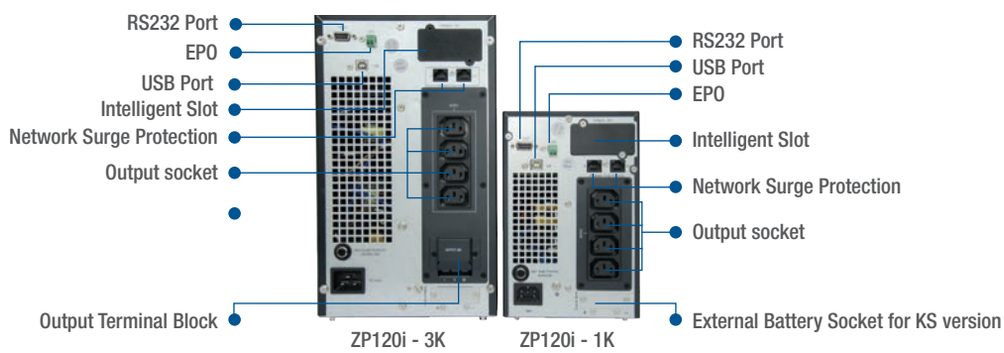



### HIGH POWER DENSITY

- Wide input voltage range
- 0.9 output power factor
- Input power factor connection and lowest current distortion

### FLEXIBLE SETTINGS

- Selectable configuration via LCD: online, eco-mode
- EPO connector for remote emergency power off
- External battery connection for KS model
- Simplified installation



## 6-10-15-20kVA (1/1) & 10-15-20kVA (3/1)

### STRONGEST PERFORMANCE

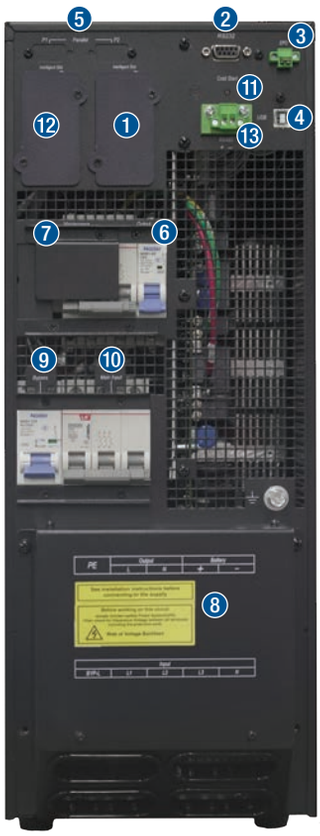
- DSP technology fully controlled
- LCD display multi language
- Real time event logs
- Dual intelligent slots for SNMP and Dry Contact card
- Auto fan speed adjustment
- Short circuit protection
- For 1/1 model, lowest input voltage 110Vac
  For 3/1 model, lowest input voltage 190Vac

### FLEXIBLE SETTINGS

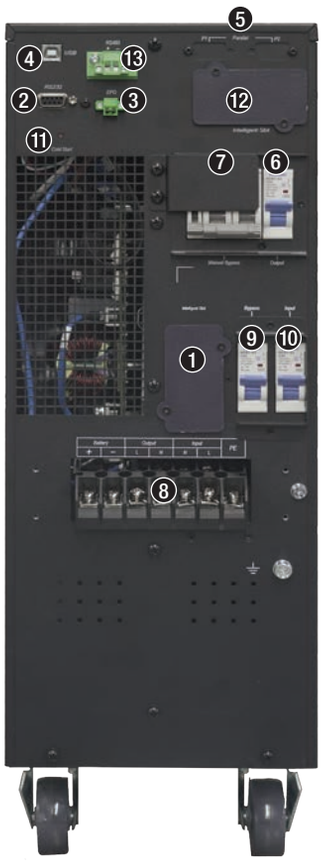
- Selectable configuration via LCD: online, parallel, eco-mode
- Parallelable up to 4 units with optional parallel kit
- Standard mechanical maintenance bypass
- Optional internal insulation transformer
- EPO connector for remote emergency power off
- Standard external battery connection for KS model with 5A battery charger & 12A battery charger option
- Back-feed protection option
- External blocks 12V battery model selectable 16; 18; 20; 22 or 24

### HIGH POWER DENSITY

- Output power factor 1

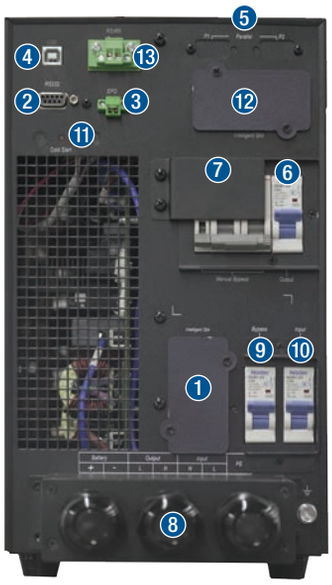



ZP120+, 10-15-20KS-31 UPS

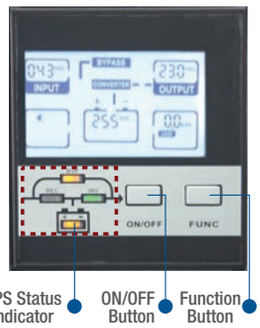



ZP120+, 6-10K-11 UPS

| Description | | | | | |
|---|---|---|---|---|---|
| 1 | Dry Contact | 6 | Output MCB | 11 | Battery cold start |
| 2 | RS232 Port | 7 | Manual Bypass MCB | 12 | SNMP |
| 3 | EPO | 8 | Terminal Block with Cover | 13 | RS485 Port |
| 4 | USB | 9 | Bypass MCB | | |
| 5 | Parallel Port | 10 | Input MCB | | |




ZP120+, 6-10KS-11 UPS




## BATTERY CABINET


ZP-BC-240V-00

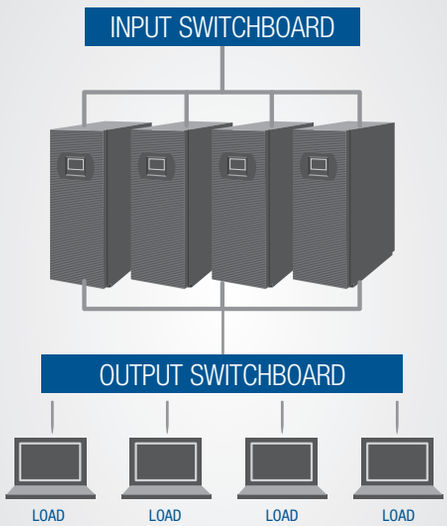
Matching battery cabinet is available and could house 20 x 7/9Ah battery

Cabinet size (mm):
190(L) x 543(D) x 338(H)

## 24A External Battery Charger


24A external battery charger is a standalone digital battery charger, it can be connected parallel to UPS DC section, or it can be used as a standalone battery charger.
It has the following features:

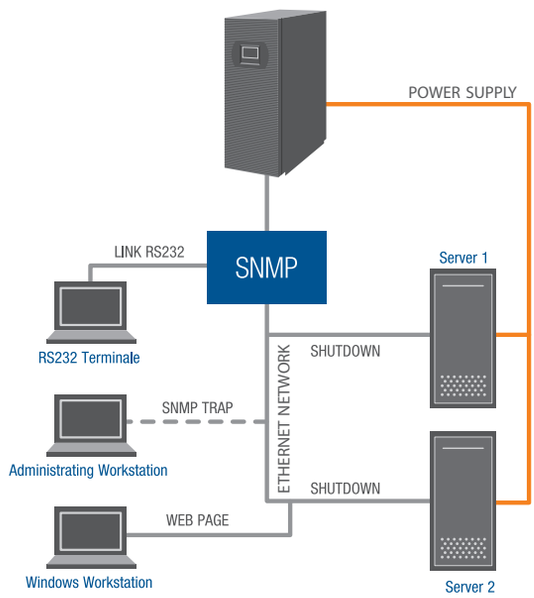
- Adjustable charging voltage for 16, 18, 20, 22, 24 of 12V battery
- Adjustable charging current from 1Adc to 24Adc
- Built-in RS232, USB & EPO for software configuration and remote control




ZP120i 6kVA to 20kVA UPS with optional parallel kit fitted in parallel configuration, can meet most demanding power requirement. Increase power availability and flexibility.

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

# Direct Connection with Ethernet Network




# Communication and Power Management Solutions

With optional SNMP card, it has the function to remote monitor and control UPS, warning notifications through broadcast and mobile phone, multi-shutdown PCs, and schedule UPS self-test. This unique software provides complete power protection for computer system during power failure. The software supports lots of O/S including Windows family, Linux, FreeBSD. More than that, to offer increased benefits for our customers, we have also released USB version MAC version on the internet.



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

# TECHNICAL
# **ASSISTANCE** SERVICE

**UPService**, our technical assistance facility uses highly trained engineers to provide a reliable and competent technical support and after-sales service.

UPService can provide customers with:

- A dedicated CALL CENTRE for connection to the UPService organisation. UPService personnel are always available and ready to provide advice and assistance regarding UPS installation, maintenance, fault finding and repair.

- FAST & READY A fast repair on site is guaranteed through the use of state-of-the-art UPS technology and the professionalism of the UPService personnel and Authorised Assistance Centres. UPService guarantees that failed parts are replaced with original ones, tested and updated in order to maintain the safety, reliability and operating characteristics of the UPS.

- COMMISSIONING AND START-UP UPService can provide assistance during commissioning and startup of the UPS equipment on-site with additional training during handover to site personnel. UPService engineers can also verify site suitability, analyse and advise on potential problems, and disconnect and relocate equipment. UPService recommend that all hardwired installations are commissioned by UPService engineers.

- MAINTENANCE CONTRACTS can be provided by UPService to minimise response times and repair costs. Contracts range from periodic inspections to comprehensive cover including labour and materials.

- UPService organises regular TECHNICAL TRAINING COURSES for UPS operators and installers.

# ZP120i & ZP120+

## 1kVA to 10kVA (1/1)

| TECHNICAL SPECIFICATIONS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Model | ZP120i-1K | ZP120i-1KS | ZP120i-2K | ZP120i-2KS | ZP120i-3K | ZP120i-3KS | ZP120+6K | ZP120+6KS | ZP120+10K-11 | ZP120+10KS-11 |
| Power Capacity (* for 200Vac & 208Vac) | 1kVA / 0.9kW (*) | | 2kVA / 1.8kW (*) | | 3kVA / 2.7kW (*) | | 6kVA/ 6kW | | 10kVA/ 10kW | |
| **UPS INPUT** | | | | | | | | | | |
| Voltage | 200Vac / 208Vac / 220Vac / 230Vac / 240Vac | | | | | | | | | |
| Acceptable voltage range | 110Vac to 288Vac >176Vac for 100% load / >154Vac for 80% load / >132Vac for 70% load / >110Vac for 50% load 110Vac to 288Vac | | | | | | 110Vac to 288Vac >110Vac for 50% load / >176Vac for 100% load | | | |
| Frequency Range | 40Hz – 70Hz | | | | | | | | | |
| Input PF | ≥0.97 | | | | | | ≥0.99 | | | |
| Input current (at nominal voltage) | 5.5A max | | 11A max | | 16A max | | 36A max | | 60A max | |
| Input connection | IEC C13 10A power cord | | IEC C19 16A power cord | | | | Terminal block | | | |
| **BATTERY SECTION** | | | | | | | | | | |
| Type | Sealed lead acid maintenance free | | | | | | | | | |
| DC voltage nominal | 36Vdc - (3 x 12V7Ah) | | 72Vdc – (6 x 12V7Ah) | | 96Vdc – (8 x 12V7Ah) | | 192Vdc 16 x 7Ah | 16~24 x 12Vdc | 192Vdc 16 x 9Ah | 16~24 x 12Vdc |
| Backup time (typical load) | >8 - 10 mins | External battery | >8 - 10 mins | External battery | >8 - 10 mins | External battery | >6 - 8 mins | External battery | >5 - 6 mins | External battery |
| Recharge time | 8 hours to 90% | | | | | | 7 hours to 90% | Depending on battery | 8 hours to 90% | Depending on battery |
| **UPS OUTPUT** | | | | | | | | | | |
| Rated voltage (** for 200VAc & 208Vac, output PF 0.8*) | 200Vac -208Vac (*) / 220Vac - 230Vac - 240Vac | | | | | | | | | |
| Voltage stability | ± 1 % | | | | | | | | | |
| Rated Frequency | 50Hz / 60Hz ±0.2% (free running mode) | | | | | | 50Hz / 60Hz ±0.1% (free running mode) | | | |
| Voltage distortion | ≤2% linear load / ≤5.5% non-linear load | | ≤2% linear load / ≤5% non-linear load | | | | ≤1% at linear load / ≤5% for non-linear load | | | |
| Output waveform | Pure Sinewave | | | | | | | | | |
| Overload performance | Inverter mode: 105% ~ 130% for 1min and 150% for 30sec, then transfer to bypass<br>Battery mode: 105% ~ 130% shutdown after 30sec; 150% shutdown after 5sec<br>Bypass mode: <130% continuous;>130% ~ <150% shutdown after 10mins; >150% ~ <180% shutdown after 5s | | | | | | Inverter mode: 110% for 10mins; 125% for 60sec; and 150% for 200ms, then transfer to bypass<br>Battery mode: 110% for 1min or 125% for 10s or >125% for 5s, then Inverter shutdown | | | |
| Crest factor | 3 : 1 | | | | | | | | | |
| Output connection | 4 x IEC320 C13 10A | | | | 4 x IEC320 C13 10A & terminal block | | Terminal block | | | |
| | Other German, Australia & UK sockets for 1kVA to 3kVA model are available upon request | | | | | | | | | |
| **GENERAL CHARACTERISTICS** | | | | | | | | | | |
| Transfer Time | 0 sec bypass to Inverter / 2ms from Inverter to Bypass | | | | | | 0ms | | | |
| Overall efficiency | 94% ECO / 87% at 50% load, 86% at 100% load | | 97% ECO / 88% at 50% load, 87% at 100% load | | 97% ECO / 89% at 50% load, 87% at 100% load | | 98% ECO / 95% at 100% load | | | |
| Mimic panel information | Large LCD display + command buttons + LED | | | | | | | | | |
| Temperature | 0°C to 40°C (operating) / -20°C to 70°C (storage) | | | | | | | | | |
| Humidity | <95% non condensing | | | | | | | | | |
| Noise Level (@ 1m) | <43dBA at <60% load; >60% load <47dBA | | <45dBA at <60% load; >60% load <50dBA | | | | 58dBA | | | |
| Net Size (mm) & Net Weight (kg) - **STANDARD** | 144(L) x 353(D) x 222(H) / 12 | | 190(L) x 374(D) x 336(H) / 21 | | 190(L) x 426(D) x 336(H) / 25.6 | | 190(L) x 606(D) x 705(H) / 56 | | 190(L) x 606(D) x 705(H) / 60 | |
| Net Size (mm) & Net Weight (kg) - **KS** | 144(L) x 353(D) x 222(H) / 6 | | 190(L) x 374(D) x 336(H) / 10.5 | | 190(L) x 426(D) x 336(H) / 11.5 | | 190(L) x 606(D) x 338(H) / 14 | | 190(L) x 606(D) x 338(H) / 16 | |
| Remote interfacing | USB port; RS232& Intelligent slot (standard); Optional: SNMP Card; Dry contact card (DB9 or phoenix connector) | | | | | | 2 x Intelligent slots (for optional SNMP & Dry Contacts); RS232/ USB port | | | |
| UPS management | USB port & RS232 for UPS proprietary configuration software<br>Power management from SNMP supports: TCP/IP; UDP; SNMP; Telnet; SNTP; PPP; HTTP; SMTP | | | | | | | | | |
| Standard compliance | IEC 62040-1-1; IEC 62040-2 class A; IEC 61000-4-2 level 4; IEC 61000-4-3 level 3; IEC 61000-4-4 level 4; IEC 61000-4-5 level 4; IEC 61000-2-2 | | | | | | | | | |

KS version is fitted with super battery charger for 6K to 10K UPS with standard 5A, optional 12A charger model name add "12A".
Battery backup time is sized based on 60% typical load at PF 0.9.
UPS capacity shall derate to 90% for 208V; and derate to 80% for 200V output voltage; derate to 60% automatically when at converter mode.
Optional external battery cabinet with or without battery is available upon request.
Product specifications are subject to changes without further notice.

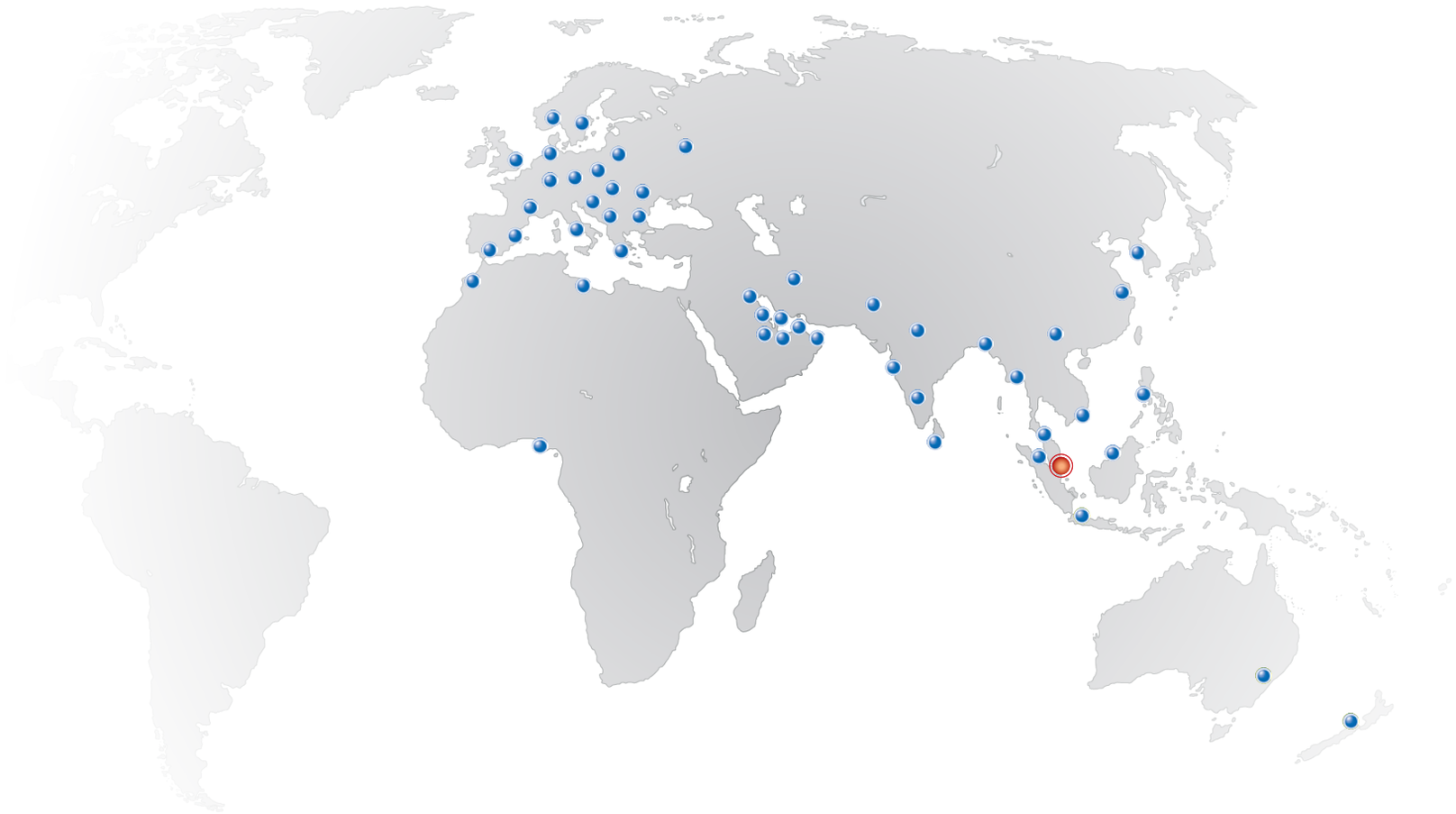
# ZP120+

## 10kVA to 20kVA (3/1)

| TECHNICAL SPECIFICATIONS | | | | |
|---|---|---|---|---|
| Model | | ZP120+10KS-31 | ZP120+15KS-31 | ZP120+20KS-31 |
| Power Capacity | | 10kVA / 10kW | 15kVA / 15kW | 20kVA / 20kW |
| **UPS INPUT** | | | | |
| Voltage | | 380V, 400V, 415V (L-L) 3 phase + N (convertibles to 1 phase with optional kit) | | |
| Acceptable voltage range (phase neutral) | | 190Vac – 499Vac<br>>190Vac for 50% load / >228Vac for 75% load / >266Vac for 90% load / >305Vac for 100% load | | |
| Frequency range | | 40Hz – 70Hz | | |
| Input PF / THDi | | 0.99 / <4% | | |
| Input current (at nominal voltage) | | 16A for 3 phase input | 25A for 3 phase input | 33A for 3 phase input |
| Input connection | | Terminal block | | |
| **BATTERY SECTION** | | | | |
| Type | | Sealed lead acid maintenance free | | |
| DC voltage nominal | | Default 192Vdc adjustable from 16; 18; 20; 22; 24 blocks 12V battery from mimic panel | | |
| Recharge time | | 6 ~ 8 hrs to 90% depending on battery Ah | | |
| **UPS OUTPUT** | | | | |
| Rated voltage | | 200Vac/ 208Vac (PF0.9) / 220Vac / 230Vac / 240Vac (PF1) | | |
| Voltage stability | | ±1% | | |
| Rated Frequency | | 50Hz / 60Hz ±0.1Hz (free running mode) | | |
| Voltage distortion | | ≤1% at linear load / ≤3% for non-linear load according to IEC 62040-3 | | |
| Output waveform | | Pure sinewave | | |
| Overload performance | Inverter | Inverter mode: 110% for 10mins; 125% for 60sec; and 150% for 30sec, then transfer to bypass<br>Battery mode: 110% for 1min or 125% for 10sec or >125% for 5sec, then Inverter shutdown | | |
| | Bypass | <125% permanently / 130% shutdown in 5 mins / 150% shutdown in 60 sec / > 150% shutdown in 200 ms | | |
| Crest factor | | 3 : 1 | | |
| Output connection | | Terminal block | | |
| **GENERAL CHARACTERISTICS** | | | | |
| Transfer Time | | 0 secs | | |
| Efficiency | | Up to 95.5% (online mode) / 98% at ECO mode | | |
| Mimic panel information | | Large LCD display + command buttons + LED | | |
| Temperature | | 0°C to 40°C (operating) / -20°C to 70°C (storage) | | |
| Humidity | | <95% non-condensing | | |
| Noise Level (@ 1m) | | ≤55dBA | ≤62dBA | |
| Size (LxDxH) (mm) | | 190(L) x 565(D) x 500(H) | | |
| Net / gross weight (kg) | | 30 | | |
| Remote interfacing | | 2 x Intelligent slots (for optional SNMP & Dry Contacts); RS232/ USB port | | |
| UPS management | | USB port & RS232 for UPS proprietary configuration software<br>Power management from SNMP supports: TCP/IP; UDP; SNMP; Telnet; SNTP; PPP; HTTP; SMTP | | |
| Standard compliance | | IEC 62040-1-1; IEC 62040-2 class C3; IEC 61000-4-2 level 4; IEC 61000-4-3 level 3; IEC 61000-4-4 level 4;<br>IEC 61000-4-5 level 4; IEC 61000-2-2 | | |

KS version is fitted with super battery charger, standard 5A, optional 12A charger model name add "12A".
Battery backup time is sized based on 60% typical load at PF 0.9.
UPS capacity shall derate to 90% for 208V; and derate to 80% for 200V output voltage; derate to 60% automatically when at converter mode.
Optional external battery cabinet with or without battery is available upon request.
Product specifications are subject to changes without further notice.

## G-Tec Asia Pacific Pte Ltd



***Working** in **Power***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