



Genius

10-800 KVA

Features



● Online double conversion

- Online Double Conversion design helps to output a pure sine wave, which is immune from the UPS input, so that the load can run steadily.

- UPS transfers among different working mode without output interruption, thereby powering the load uninterruptedly.

● Full DSP control

- Full DSP Control avoids the risks caused by analog devices failure and makes the control system more stable and reliable.

● High power factor

- The output power factor up to 0.9 better matches the load.

- The input power factor 0.98 with filter helps to improve the efficiency, reduce the harmonic pollution to the Grid and lower the UPS running cost.

● Wide input adaptability

- The range of AC input voltage is (380Va/400Vac/415Vac) (-25%/+20%), minimizing transfer to battery mode, thereby greatly prolonging the battery life.

- Wide input frequency ranging from 45Hz to 65Hz, ensures stability of UPS while generator connected.

● Optimized battery management

- Intelligent battery management system and advanced battery auto float/boost charge technology, reduces the frequency of battery maintenance, greatly improves the battery efficiency and extends battery life.

- Battery discharge time prediction: the system will display the backup time of battery calculated by discharge current and voltage.

- Battery self-test: battery is automatically tested at regular intervals

- Flexible battery configuration ranging from 360-480VDC.

● N+X parallel redundancy

- N+X parallel redundant design, up to 6 units available, makes the configuration more flexible.

Any unit in parallel system fails, the faulty one will automatically cut off the output, and the load will be powered by the remained units.

- It is easy to configure the parallel system just by connecting the parallel cables and doing proper settings.

- Non-fixed Master-Slave relationship: Among several UPS in parallel, the unit startup first is Master UPS, the others are Slave. The master and slave may be exchanged.

● Strong overload capability

- 110%/125%/150% overload for 60min/10min/1min.

● Power walk in

- Specially designed power walk in function, in which rectifier of each unit in parallel system will be turned on in sequence at intervals to avoid the sudden load on the generator, thereby reducing the cost of the generator required.

● Generator mode

- Set the maximum output power of the generator when a smaller one than needed is employed to extend the battery duration time. In this case, the load is supplied by both the generator and battery.

● LBS synchronization

- Synchronize the output of the two independent UPS systems (single unit or parallel) even when the two systems are operating on different modes (bypass/inverter) or on battery.

● Multi-protection

- Self-diagnosis function will take place before start-up for safety.

- Multi-protection: AC input under/over voltage, overload, short-circuit, over-current, over bus voltage, over-temperature, fan failure, auxiliary power failure, battery under voltage, battery over-charge and so on.

- **Output isolation transformer**

● EPO function

- A concave red EPO button with transparent cover is embodied in the LCD control panel for emergency power off.

● User-friendly network management

- Chinese/English LCD and LED mimic diagram: real time operation parameters and status

- **Log history event up to 516 events**

- RS232 & RS485 communication ports: for local monitor with corresponding software, and MODBUS protocol is optional.

- SNMP adapter (optional): for remote monitor through network

- Dry contacts for additional monitoring:

- UPS on Inverter
- Mains input failure
- remote EPO
- Battery low voltage alarm
- UPS fault
- UPS alarm
- UPS on battery
- UPS on bypass

Note: d)-h) optional

Genius 3/3 10-80 KVA Specification

| Model | 3GCT3-10K | 3GCT3-20K | 3GCT3-30K | 3GCT3-40K | 3GCT3-60K | 3GCT3-80K |
|----------------------------|---|------------|------------|------------|------------------|------------|
| Capacity (VA/WATT) | 10KVA/9KW | 20KVA/18KW | 30KVA/27KW | 40KVA/36KW | 60KVA/54KW | 80KVA/72KW |
| Input | | | | | | |
| Nominal Input Voltage | 380/400/415Vac, (3Ph+N+PE) | | | | | |
| Input Voltage range | (380-25%, 415+20%)Vac | | | | | |
| Input Frequency range | 50/60Hz (±5Hz) | | | | | |
| Input Power factor | ≥0.98(with filter) | | | | | |
| Bypass | | | | | | |
| Bypass Voltage | 380/400/415Vac | | | | | |
| | Upper limit: +20% (+10%, +15%, +20% adjustable) | | | | | |
| | Lower limit: -40% (-10%, -20%, -30%, -40% adjustable) | | | | | |
| Bypass Frequency range | 50/60Hz ± 10% (±2.5%, ±5%, ±10%, ±20% adjustable) | | | | | |
| Transfer time | Mains to Battery:0ms; Mains to Bypass:0ms | | | | | |
| Output | | | | | | |
| Output Voltage | 380/400/415Vac | | | | | |
| Voltage regulation | ± 1% | | | | | |
| Output Frequency | 50/60Hz(±0.05) | | | | | |
| Crest Factor | 3:1 (Max.) | | | | | |
| Harmonic distortion (THDv) | <3% with linear load | | | | | |
| Efficiency | >89% | >90% | >91% | >91% | >92% | >92% |
| Output Power Factor | 0.9 | | | | | |
| Battery | | | | | | |
| Battery DC Voltage | 384Vdc | | | | | |
| Battery Type | sealed lead acid | | | | | |
| Battery number | 32 Pcs | | | | | |
| Backup time | Depends on the capacity of external batteries. | | | | | |
| System Features | | | | | | |
| Overload capacity | Load≤ 110%:60min; ≤ 125%:last 10min; ≤ 150%:last 1min; > 150% turn to bypass mode | | | | | |
| Communication interface | RS232,RS485, Dry contact, SNMP card(optional) | | | | | |
| Physical | | | | | | |
| Dimension (DxWxH)mm. | 570 x 800 x 1195 | | | | 760 x 880 x 1600 | |
| Net Weight (KGs) | 217 | 273 | 316 | 330 | 483 | 525 |
| Shipping weight (KGs) | 272 | 328 | 371 | 385 | 553 | 595 |
| Environmental | | | | | | |
| Operation temperature | 0°C ~40°C | | | | | |
| Storage Temperature | -25°C ~55°C | | | | | |
| Humidity Range | 0 ~95% (non-condensing) | | | | | |
| Noise level | <60dB | | | <65dB | | |
| Altitude | < 1500m | | | | | |
| Standards | | | | | | |
| Safety | IEC/EN62040-1,IEC/EN60950-1 | | | | | |
| EMC | IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8 | | | | | |
| Design | IEC/EN 62040-3 | | | | | |
| IP Rating | IP20 | | | | | |

Genius 3/3 100-800 KVA Specification

| Model | 3GCT3-100K | 3GCT3-120K | 3GCT3-160K | 3GCT3-200K | 3GCT3-300K | 3GCT3-400K | 3GCT3-500K | 3GCT3-600K | 3GCT3-800K | |
|----------------------------|---|--------------|-------------------|--------------|--------------------|--------------|--------------------|--------------|-----------------------|--|
| Capacity (VA/WATT) | 100KVA/90KW | 120KVA/108KW | 160KVA/144KW | 200KVA/180KW | 300KVA/270KW | 400KVA/360KW | 500KVA/450KW | 600KVA/540KW | 800KVA/720KW | |
| Input | | | | | | | | | | |
| Nominal Input Voltage | 380/400/415Vac, (3Ph+N+PE) | | | | | | | | | |
| Input Voltage range | (380-25%, 415+20%)Vac | | | | | | | | | |
| Input Frequency range | 50/60Hz (±5Hz) | | | | | | | | | |
| Input Power factor | ≥0.98(with filter) | | | | | | ≥0.85 | | | |
| Bypass | | | | | | | | | | |
| Bypass Voltage | 380/400/415Vac | | | | | | | | | |
| | Upper limit: +20% (+10%, +15%, +20% adjustable) | | | | | | | | | |
| | Lower limit: -40% (-10%, -20%, -30%, -40% adjustable) | | | | | | | | | |
| Bypass Frequency range | 50/60Hz(auto-sensing) ± 10% (±2.5%, ±5%, ±10%, ±20% adjustable) | | | | | | | | | |
| Transfer time | Mains to Battery:0ms; Mains to Bypass:0ms | | | | | | | | | |
| Output | | | | | | | | | | |
| Output Voltage | 380/400/415Vac | | | | | | | | | |
| Voltage regulation | ± 1% | | | | | | | | | |
| Output Frequency | 50/60Hz(±0.05) | | | | | | | | | |
| Crest Factor | 3:1 (Max.) | | | | | | | | | |
| Harmonic distortion (THDv) | <2% with linear load | | | | | | | | | |
| Efficiency | >92% | | >92.5% | | >93% | | >94% | | >95% | |
| Output Power Factor | 0.9 | | | | | | | | | |
| Battery | | | | | | | | | | |
| Battery DC Voltage | 384Vdc | | | | | | 480Vdc | | | |
| Battery Type | sealed lead acid | | | | | | | | | |
| Battery number | 32 Pcs | | | | | | 40 Pcs | | | |
| Backup time | Depends on the capacity of external batteries. | | | | | | | | | |
| System Features | | | | | | | | | | |
| Overload capacity | Load≤ 110%:60min; ≤ 125%:last 10min; ≤ 150%:last 1min; > 150% turn to bypass mode | | | | | | | | | |
| Communication interface | RS232,RS485, Dry contact, SNMP card(optional) | | | | | | | | | |
| Physical | | | | | | | | | | |
| Dimension (DxWxH)mm. | 805 x 1160 x 1600 | | 945 x 1400 x 1900 | | 1040 x 1640 x 1900 | | 1040 x 2800 x 1900 | | 1100 x 3900 x 1950 | |
| Net Weight (KGs) | 800 | 903 | 1219 | 1425 | 1780 | 2050 | 3700 | 4500 | 6400 | |
| Shipping weight (KGs) | 890 | 993 | 1349 | 1555 | 1950 | 2200 | 3950 | 4750 | 6700 | |
| Environmental | | | | | | | | | | |
| Operation temperature | 0°C ~40°C | | | | | | | | | |
| Storage Temperature | -25°C ~55°C | | | | | | | | | |
| Humidity Range | 0 ~95% (non-condensing) | | | | | | | | | |
| Noise level | <65dB | | | | | <70dB | | | | |
| Altitude | < 1500m | | | | | | | | | |
| Standards | | | | | | | | | | |
| Safety | IEC/EN62040-1,IEC/EN60950-1 | | | | | | | | | |
| EMC | IEC/EN62040-2,IEC61000-4-2,IEC61000-4-3,IEC61000-4-4,IEC61000-4-5,IEC61000-4-6,IEC61000-4-8 | | | | | | | | | |
| Design | IEC/EN 62040-3 | | | | | | | | | |
| IP Rating | IP20 | | | | | | | | | |