



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 (380V_{AC}/400V_{AC}±15V_{AC}) (-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

- 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 real 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℃ ~40℃								
Storage Temperature	-25℃ ~55℃								
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								