

Technical data sheets

Digital Energy™ Uninterruptible Power Supply

GT Series UPS
6 - 10 kVA



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Certified
Quality System
ISO 9001

General data

Topology	VFI, on line double conversion	
Nominal output rating (kVA/kW)	6000/4200	10000/7000
Overall efficiency at nominal load (%)	92%	
Heat dissipation at nominal load (W)	365	609
Cooling air (m³/s)	100	
Audible noise level (dB(A))	<55 (load and temperature dependent)	
Operating temperature range (°C)	0-40 (15-25 recommended for batteries)	
Relative humidity	90% (non condensing)	
Protection degree	IP20	
Safety	IEC/EN 62040-1-1	
EMC	IEC/EN 62040-2 Category C2 (Class A)	
Surge capacity	IEC/EN 61000-4-5, Level 4, 2kV line-line / 4kV line-earth	
Electrostatic discharge immunity	IEC/EN 61000-4-2, Level 4, 8kV contact / 15kV air discharge	
Colour	RAL 9005 (black)	

Input converter

Nominal AC input voltage (V)	230	
Input Voltage Range (V)	175-276 (84-276 for load <30%)	
Minimum Start-up voltage (V)	176	
Input Frequency Range (Hz)	40-70	
Power factor	>0.97	
Nominal input current (A)	20.6	34.6
Inrush current (A)	60	
Input current waveform	sinusoidal	
THDi (%)	<5 (full load)	

Output converter (inverter)

Power factor	0.7	
Nominal AC output voltage (V)	220 / 230 / 240 (selectable)	
Output voltage tolerance (%)	± 2% (static)	
Recovery Time (ms)	50	
Output frequency (Hz)	50 / 60 (selectable)	
Output frequency tolerance (%)	± 0.1 Hz (on battery)	
Output current waveform	sinusoidal	
THDu (%)	< 3% with linear load, < 5% with non linear full load	
Crest factor handling	≤ 3:1	
Overload capability	125% 1min, 150% 10 s, >150% <2s	
Short circuit capability (A)	100 ms	100 ms

Bypass

Bypass voltage range (V)	± 10% nominal	
Frequency slew rate (Hz/s)	1	
Frequency tracking range	± 5% selected	
Transfer Time (ms)	0.5 typ	
Overload capacity	Depending on thermal circuit breaker characteristic but typically: 125% TCB size for 50-700s 200%TCB size for 10-150s 300% TCB size for 3-40s	

Batteries

Battery type*	sealed lead acid maintenance free, 5 years lifetime	
Capacity (Ah)*	8	
Nr. of blocks	20	
Standard backup time at nominal loads (mins)	12	5
End of discharging voltage (Vdc/cell)	1.66	
Recharging current (Adc)	1.2	
Recharge Time	5 hrs to 90% of capacity	

Controls, signals and alarms

Front

On / Off Push – buttons
Buzzer (resettable)
Alarm led (red)
Runtime led bar
Load level led bar

4 Status led:

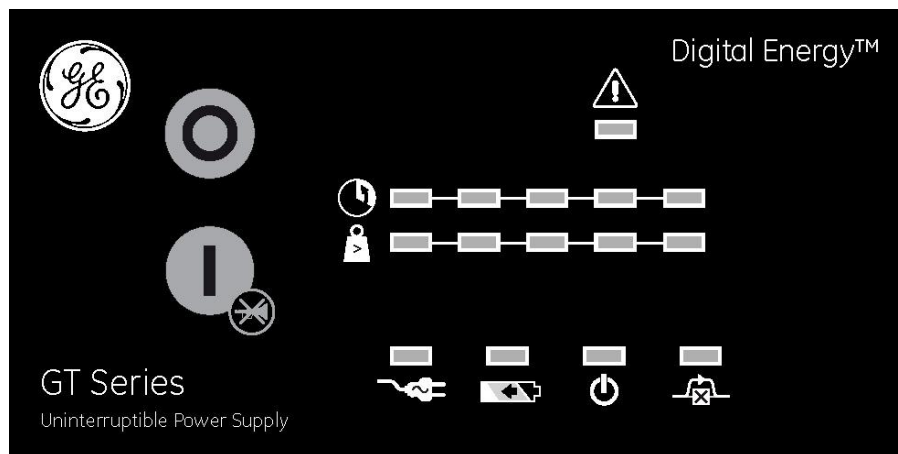
- Mains present
- On battery
- UPS on
- On bypass

Rear

Input circuit breaker
Output circuit breaker
Input/Output terminals
Output socket(s)
DC connector for batteries
RS232 communication port
Parallel Board
Remote Power Off Contact (RPO)
SNMP Card* plug

**option*

Front panel



Optional features

SNMP interface card

An SNMP card may be inserted into the proper plug in order to allow UPS data communication over an Ethernet Network or Web.

Battery modules – extended runtime

Additional battery modules (up to 2) may be connected in parallel in order to achieve a longer runtime. Every battery module is equipped with its DC cabling and it makes connection between modules very easy and simple.

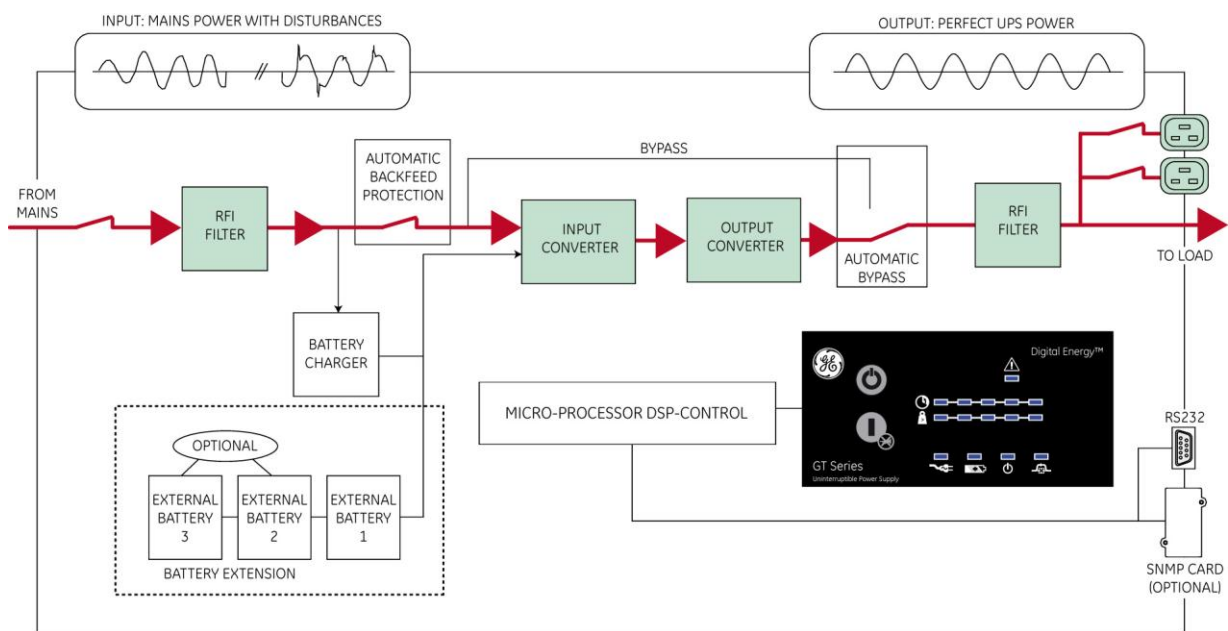
Increasing of total battery capacity will correspond to a longer recharging time.

Dimensions and battery

UPS Model (kVA)	Backup time (min.)	Total capacity (Ah)	Nr. of extra battery cabinets	Battery cabinet 8 Ah	UPS cabinet		
					Dimensions	UPS weight (*)	Shipping weight (*)
GT 6000	12	8	1	Dimension (HxWxD): 130(3U) x 410 x 660 Shipping dimension (HxWxD): 305 x 575 x 865 Weight (kg): 66.5 Shipping weight (kg): 74	Dimension (HxWxD): 130(3U) x 410 x 660 Shipping dimension (HxWxD): 305 x 575 x 865	23.5	31
	29	16	2				
	47	24	3				
GT 10000	5	8	1	Weight (kg): 66.5 Shipping weight (kg): 74	Shipping dimension (HxWxD): 305 x 575 x 865	26.5	34
	15	16	2				
	26	24	3				

(*): Standard backup time and capacity

UPS block diagram, protections and cable sections



Recommended external fusing of input wiring		Cable sections input and output recommended by European standards / in () SEV Alternatively, local standards to be respected	
UPS Model	Mains / Bypass input	CABLE SECTIONS	
		mm ²	AWG
GT 6000	25A gL/gG or class "C" MCB	4	11
GT 10000	40A gL/gG or class "C" MCB	6	9



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