

# SHIELD

6-10 kVA

SINGLE-PHASE ONLINE UPS

1:1

The ideal solution for:

- ✓ *SERVER*
- ✓ *INFORMATION TECHNOLOGY*
- ✓ *LOCAL AREA NETWORKS*
- ✓ *TELECOMMUNICATIONS*
- ✓ *SECURITY SYSTEMS*

# OVERVIEW

SHIELD represents the state of the art in the Online single-phase UPS field, thanks to excellent performance and a very high efficiency level.

With 6 kVA and 10 kVA versions available, SHIELD is the ideal solution for servers and IT systems protection, as well as for security and telecommunication systems.

PF1

Power Factor 1

98%

Efficiency up to 98%



## BEST PERFORMANCE

Since the design phase GTEC took care about every single detail of SHIELD series, making an Uninterruptible Power Supply that feels unrivaled in the single-phase UPS class.

The system is equipped with the best technology available, such as the IGBT rectifier and the DSP digital control, with parallel option also available up to 4 units.

Power Factor 1 and efficiency up to 98% are tangible proof of the extraordinary work done by GTEC technicians on this UPS, that also offers one of the smallest and lowest weighted tower case available on the market.



## COMPLETE BATTERY MANAGEMENT

SHIELD is equipped with a digitally controlled battery charger that allows unmatched flexibility level for battery management.

You can change the charge current, as well as you can choose between two levels of charge voltage, Float and Boost, just like higher power three-phase UPS can usually do.

These functions, as well as programmable discharge test, allow to optimize batteries setting and management, extending their expected life.

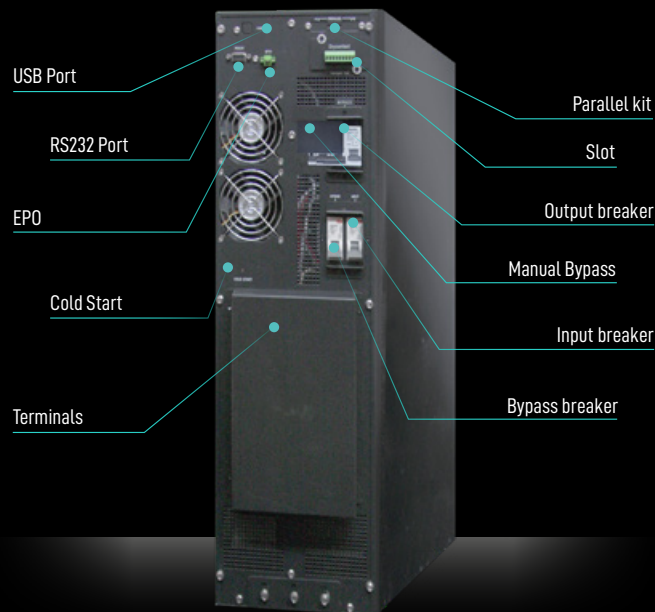


## HIGH FLEXIBILITY

Besides some ordinary options, such as SNMP card and Dry Contacts, SHIELD provides a wide range of customizable settings, including the 16 or 20 internal batteries setup choice.

Maximum flexibility is also guaranteed by the chance to set the system with 110 Volt output voltage, so as to satisfy a wide range of installation requirements.

Additional battery cabinets are also available for each model, in order to increase autonomy according to specific user's need, as well as the super charger version (KS version).



# SOFTWARE

SHIELD can be equipped upon request with a high professional setup software, that is usually provided with the most powerful three-phase UPS models.

The software is really user friendly and it offers many functions and configurations, such as:

- Downloading the event log (alarms, states and warnings on a time basis)
- Setting up input/output voltage
- Editing all battery parameters



MODEL	SHIELD-6K	SHIELD-6K-KS*	SHIELD-10K-11	SHIELD-10K-11-KS*
Power	6 kVA / 6 kW		10 kVA / 10 kW	
<b>MAIN INPUT</b>				
Grid system	1 Phase + Neutral + Ground			
Rated voltage / Frequency	230VAC, 50/60 Hz			
Voltage range	110~288 VAC (derating with main <176 VAC)			
Rating (nominal input voltage)	30 A	34 A	49 A	53 A
Frequency range	40~70Hz (rectifier operating range)			
Power factor	>0.99			
Current THDi	<4%			
<b>OUTPUT</b>				
Rated voltage / Frequency	220/230/240 VAC, 50/60 Hz (110 VAC version available upon request)			
Power Factor	1			
Wave form	Pure sine wave			
Voltage THDv	≤1% (linear load); ≤5% (non-linear load)			
Voltage precision	±1% (0-100% linear load)			
Transient recovery	Compliant to EN62040-3 VFI-111 Standard			
Inverter overload	105-110%, 10 minutes 110-125%, 1 minute 125-150%, 30 seconds			
Bypass overload	100-125% long term operation 125-130%, 5 minutes 130-150%, 1 minute >150%, 200 milliseconds			
Frequency regulation	50/60 Hz ±0.1%			
Synchronized range	Selectable, default ±5 Hz			
Synchronized slew rate	Selectable (1 Hz/S ~ 5 Hz/S)			
Crest factor	3:1			
<b>BATTERIES</b>				
Battery type	Pb			
Battery capacity	12 V / 7 Ah	Selectable	12 V / 9 Ah	Selectable
Number of batteries in series	16 (standard)			
Battery range	From 16 to 20	From 16 to 24	From 16 to 20	From 16 to 24
Battery rate voltage	192 / 240 VDC	192 / 288 VDC	192 / 240 VDC	192 / 288 VDC
Backup time	50% load: up to 12 minutes 75% load: up to 7 minutes 100% load: up to 3.5 minutes	Depending on external batteries capacity	50% load: up to 8 minutes 75% load: up to 4 minutes 100% load: up to 1.5 minutes	Depending on external batteries capacity
<b>BATTERY CHARGER</b>				
Charging voltage	2.25 V/cell default (settable)			
Charging current	1 A	5 A (settable)	1 A	5 A (settable)
Charging time	8 h to recover 80% capacity	Depending on external batteries capacity	8 h to recover 80% capacity	Depending on external batteries capacity
<b>SYSTEM</b>				
Efficiency	Normal operation: 95% Battery operation: 94.6% Eco Mode operation: 98%			
Display	LED + LCD			
Protection degree	IP20			
Interface	Standard equipment: RS232, USB, Cold Start, EPO Optional: RS485, SNMP, dry contacts, parallel kit			
<b>ENVIRONMENT</b>				
Operating temperature	0 ~ 40°C			
Storage temperature	-20 ~ 70°C			
Relative humidity	0 ~ 95% (no condensing)			
Noise (dBA at 1 meter far)	< 58			
Altitude	<1000m; load derated 1% per 100m, from 1000 ~ 5000m			
<b>MECHANICAL DATA</b>				
Dimensions W*D*H (mm)	190*525*705			
Weight (Kg)	56	15	60	17
Color	Black			

Note: technical specifications and data could be changed without notification

Note 2: it is available upon request the SHIELD-RC version, which complies with CEI 0-16 requirements for MV/LV transformer substations

\* KS denotes the UPS version with increased battery charger and no internal batteries. These versions are available upon specific request

# GTEC SERVICE

GTEC supports its customers throughout the whole product life cycle, providing technical assistance and after-sales service at the highest professional standards, so to produce the best partnership experience.



**MAINTENANCE** is an essential activity in order to guarantee a safe and stable load protection. GTEC shows maximum care about this topic, providing the best service in terms of experience, instrumentation and safety level.



Through the dedicated **CALL CENTER**, customers receive prompt answers to any request, and the specialized technicians directly schedule maintenance activities.



The partnership between GTEC and its customers gets consolidated through the **TRAINING SESSIONS** proposal for technical staff, so that each user can operate on the UPSs with maximum consciousness and safety.



Also, in the GTEC Service offers, a **PROJECT CONSULTING** team is available, in order to provide the best solution according to the designer's needs.

GTEC Europe srl  
Strada Marosticana, 81/13  
36031 Povolara (VI), Italia  
Tel. +39 0444.361321  
Fax +39 0444.365191  
info@gtec-power.eu



GTEC France  
france@gtec-power.eu



[www.gtec-power.eu](http://www.gtec-power.eu)

