



SHIELD CPS

4.2-8.3 kVA

SINGLE-PHASE ONLINE UPS

1:1

The ideal solution for:

- ✓ EMERGENCY LIGHTING
- ✓ FIRE PROTECTION SYSTEMS
- ✓ ALARM SYSTEMS
- ✓ SMOKE EXTRACTORS

OVERVIEW

SHIELD CPS is the single-phase UPS that meets all requirements imposed by **EN-50171 and EN-62040 standards**, with top level performance at the same time.

This UPS system is expressly designed for critical applications bonded by safety standards, such as **emergency lighting, fire protection systems and smoke alarms**.

Standard EN-62040

Standard EN-50171

TECHNOLOGY



OPTIMIZED BATTERY MANAGEMENT

The digital battery charger allows to achieve the best performance, extending batteries' lifetime and optimizing charging time. **SHIELD CPS guarantees battery charge up to 80% in a maximum time of 12 hours.**



FLEXIBLE AUTONOMY

The UPS can be sized according to load and autonomy requirements. **It is possible to install 16 to 24 batteries in a single battery cabinet**, without any restrictions.



HIGH POWER DENSITY

Power Factor 1 and efficiency up to 98% are the best performance available in the single-phase CPS sector. The cabinet is also extremely compact and light weighted, so to make SHIELD CPS really easy to install and to transport.



BEST OVERLOAD CAPACITY

SHIELD CPS's inverter is designed to manage overloads up to 120% of nominal power without any time limit, so to provide a wide power reserve.

APPLICATIONS

EMERGENCY LIGHTING

Emergency exits, evacuation route, panic lightings, high-risk areas illumination.

FIRE ALARM

Automatic fire extinguishing systems, sprinkler systems, water-mist systems.

SMOKE DETECTION

Smoke extraction equipment and carbon monoxide detection devices.

MODEL	CPS4200MM	CPS5000MM	CPS6700MM	CPS7500MM	CPS8300MM
Power	4.2 kVA / 4.2 kW	5 kVA / 5 kW	6.7 kVA / 6.7 kW	7.5 kVA / 7.5 kW	8.3 kVA / 8.3 kW
Usage load according to EN50171	4.2 kW	5 kW	6.7 kW	7.5 kW	8.3 kW
MAIN INPUT					
Grid system	1 Phase + Neutral + Ground				
Rated voltage / Frequency	230 VAC, 50/60Hz				
Voltage range	110~288 VAC				
Maximum input current*	30.6 A	36 A	48 A	54 A	60 A
Frequency range	40~70 Hz				
Power factor	0.99				
Current THDi	<5%				
Input protection	C40	C50A	C63A	C80	C80
OUTPUT					
Rated voltage / Frequency	230 VAC, 50 Hz				
Load power factor	from 0.3 (lagging) to 0.3 (leading)				
Sinewave	Pure sine wave				
Voltage THDv	≤1% (linear load) ≤5% (non-linear load)				
Voltage precision	±1% (0-100% linear load)				
Recovery time	Compliant to EN62040-3 Standard				
Inverter overload	100-120% just overlaid alarm 120-130%, 10 minutes 130-150%, 1 minute 150-180%, 30 seconds				
Bypass overload	100-150% long term operation 150-156%, 5 minutes 156-180%, 1 minute >180%, 200 milliseconds				
Frequency regulation	50/60 Hz ±0.1% (battery mode)				
Synchronized range	Selectable; default ±5 Hz				
Synchronized slew rate	Selectable (1 Hz/S ~ 5 Hz/S)				
Crest factor	3.6:1				
BATTERIES					
Battery type	Pb 10 years				
Battery capacity	Selectable				
Battery quantity	20 (default)				
Battery quantity range	From 16 to 24				
Nominal voltage (with 20 batteries)	240 VDC				
Autonomy	Backup time has to be calculated at battery end of life				
Maximum discharge battery current	27.2 A	36 A	48 A	53.72 A	59.5 A
BATTERY CHARGER					
Discharge battery alarm	Settable (in order to guarantee 10 minutes as minimum pre-alarm time)				
Recharge current	5 A maximum (standard 1A)				
Floating voltage	2.25 V/cell default (settable)				
Boost voltage	2.25 V/cell default (settable)				
Recharge time	12 h for 80% capacity recharge				
Maximum capacity restore in 12h	72 Ah				
SYSTEM					
Efficiency	Normal operation: 95% Eco Mode operation: 98% Battery operation: 94.5%				
Display	LED + LCD				
Protection degree	IP20				
Interface	Standard equipment: RS232, USB, dry contacts, Cold Start, EPO Optional: RS485, SNMP, parallel kit				
Operating mode	SA Mode: online mode (without interruption) SO Mode: changeover mode EA Mode: online mode (less than 16ms interruption)				
Transfer load time	0 ms (From Bypass Mode to Battery Mode: 16 ms)				
Transfer time (So mode)	From OFF to ON: 16 ms (from 100 ms to 1 second with Soft Start)				
Compliance	EU Directive: 2014/35/EU Low voltage directive; e 2014/30/EU Electromagnetic compatibility directive • Safety: EN62040-1 • EMC: EN62040-2 C2 • Performance: EN62040-3 (Voltage Frequency Independent) VFI - SS - 111 • Centralised power supply systems: CEI-EN50171				
PHYSICAL DATA					
Dimensions W*D*H (mm)	190*540*705				
Weight (Kg)	21		27		
Colour	Black				

Note: technical specifications and data could be changed without notification

*Main 230 VAC, Overload 120%

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.

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