

# **Emergency Power System Pro**

CPS3500/5000/7500PRO

Our **Inverter/Emergency Power Pro System** series aim in the provision of sufficient quality backup power to sustain home/office vital electrical/electronic systems in the event of a power failure!

Imagine there is a short or extended power failure due to network overload, natural disaster, or due to any reason at all! No *Communications*, *Computers*, *Lights*, *Refrigerators*, *TV & entertainment equipment*, *Heaters*, *Air-Conditioners*, *Water-Pumps*, *Security Systems*, no *Motors of any type* can work! Unless of course, you have a backup system that can instantly take over, providing regulated AC power to all your critical systems for a prolonged time period that can last for hours or even days! The CyberPower EPS Pro can do just that! Automatically! Instantly! Quietly! No need for maintenance or to add fuel since this is a 100% electrical power backup system based on safety batteries and on an elaborate Inverter Technology!

Industrial-Class features within these models make them top and reliable performers protecting your investment for many years to come! We are proud to recommend these systems to you!



- Pure Sine-Wave Output Power for special applications
- Communication Connection Capability via SNMP, USB, Serial
- Adjustable Automatic Voltage Regulator (AVR)
- High Charging Current for Quick Recharging- up to 5 times faster!
- Integrated LCD-based multi-function Status Monitor
- EMI, RFI, Surge, Lighting, Spike, Brownout & Over-Voltage Protection
- High Runtime Expandability allowing for the connection of any number of external battery arrays in parallel configuration.
- External Batteries are "Hot-Swappable"
- Generator Compatible Interface allows for higher Flexibility
- Charging Bypass Circuitry and Reverse Polarity Protection
- Auto-Restart, auto-Changeover, auto-Charge Functions
- Easy to Use, Manage, Service
- Multiple power Output Interfaces for greater flexibility
- High Performance Output, High Reliability & Elaborate Features suitable for multi-purpose Environments, such as the support of Heaters, AC units, Refrigeration Units, Motors, Lights, etc.









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When a *maintenance free CyberPower EPS Pro* unit is connected to your in-house electrical installation, will automatically engage *in 6 milliseconds or less* following a power failure, *providing high quality regulated AC power* where needed! Please see the table below for some of the most *important appliances* with their approximate *Power Consumption Ratings*, that might need to be in operation during a power failure:

| APPLIANCE                 | <b>POWER RATING</b> |
|---------------------------|---------------------|
| Energy Lamps              | ~ 5 – 15W           |
| DVD Player                | ~ 25W               |
| 4 feet Fluorescent        | ~ 40W               |
| Air Fan                   | ~ 50W               |
| Satellite Decoder         | ~ 70W               |
| Refrigerator / Freezer    | ~ 100 – 200W        |
| 42-inch LCD TV            | ~ 200W              |
| Desktop Computer System   | ~ 350W              |
| 12000 BTU Air Conditioner | ~ 1300W             |
| Microwave Cooker          | ~ 1300W             |
| Pumping Machine           | ~ 1000 – 1500W      |

The next table illustrates some *configuration examples* that would allow for the proper *EPS Pro model selection*. As shown, *the backup capability is quite impressive and can encompass the needs of an entire home of office*!

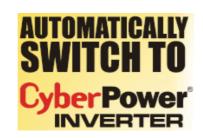


| Energy<br>Saving<br>Lamps |   |   | Refrigerator<br>/ Freezer |   |   | Recommended<br>Inverter/EPS<br>Model |
|---------------------------|---|---|---------------------------|---|---|--------------------------------------|
| 8                         | 2 | 2 | 1                         | 2 | 1 | CPS <b>3500</b> PRO                  |
| 10                        | 2 | 2 | 2                         | 2 | 2 | CPS <b>5000</b> PRO                  |
| 15                        | 2 | 3 | 2                         | 2 | 3 | CPS <b>7500</b> PRO                  |

CyberPower provides a full range of Inverter/EPS Pro products suitable for every need & for every budget:



**CPS3500PRO & CPS5000PRO** 



















## **Emergency Power System Pro**

CPS3500/5000/7500PRO

The unit *can expand using an unlimited number of daisy-chained batteries*, to suit every need, thus being able to provide a very long quality backup time!

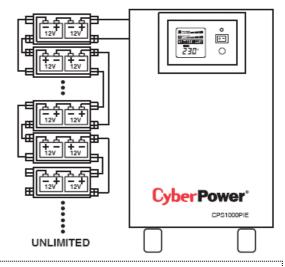
Batteries are being charged by utility or external generator AC power. *In the event of a power failure the unit will instantly switch to battery backup* providing power to the lines feeding pre-select areas of the home or office! Its that simple!

Inverter/EPS Pro current models can sustain from 2450W up to 5250W of actual load connected to them for a quite prolonged period of time, depending on the number of batteries daisy-chained onto the unit. As shown on the reference side diagrams, daisy-chaining the batteries is easy, and CyberPower can provide all the cabling accessories needed to do the job together with detailed installation documentation.

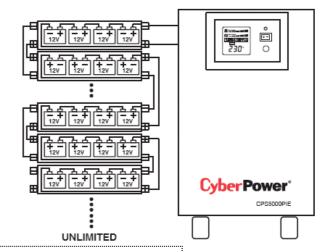
A typical home can function rather well with less than 2500W consumption in case on a prolonged power failure emergency! Lights, Water Pump, Central Heating, Communications, and Refrigeration are the most vital systems one needs to take into account in the event of a prolonged failure. And the EPS Pro can do exactly that!

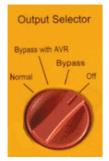


Operating the Unit is extremely Simple and Efficient! A build-in LCD with user friendly interface provides all types of relevant information to the user, so appropriate and timely action can be taken as needed!



Battery Expansion is simple and effective as shown on the two diagrams above and below based on the 3.5KVA (24V DC-Input) and on the 5KVA (48V DC-Input) units.





### Manual Switch selector with four Operational Modes:

Normal mode – Unit works like a regular UPS with Auto-Switching. Bypass with AVR mode – Utility Power is supplied directly through, but with AVR Correction by the EPS. Load limitation equal to the EPS capacity applies.

**Bypass mode** – Utility Power is supplied directly through without any regulation adjustments or load limitation.

Off mode – Unit is switched off without AC output, but still allows for the charging of the connected batteries.



**Pure Sine Wave** 

### Load/Runtime reference chart using CyberPower's CPS5000PRO EPS together with 12V 200AH Batteries:

| Load in %   | Load in Watts | 4 Batteries      | 8 Batteries | 12 Batteries | 16 Batteries | 20 Batteries |
|-------------|---------------|------------------|-------------|--------------|--------------|--------------|
| Load III /6 |               | Runtime in HOURS |             |              |              |              |
| 25%         | 875           | 11.87            | 23.73       | 35.60        | 47.47        | 59.33        |
| 50%         | 1751          | 5.08             | 10.17       | 15.25        | 20.33        | 25.42        |
| 75%         | 2625          | 2.92             | 5.83        | 8.75         | 11.67        | 14.58        |
| 100%        | 3502          | 1.97             | 3.93        | 5.90         | 7.87         | 9.83         |







## **Emergency Power System Pro** CPS3500/5000/7500PRO

#### **CAPACITY:**

 CPS3500PRO: 3500VA / 2450W • CPS5000PRO: 5000VA / 3500W • CPS7500PRO: 7500VA / 5250W

#### LCD DISPLAY:

Used to display detailed information on the UPS status, (Line / Battery Mode), and current power conditions. Displays 10 different Information blocks including: Load Level Meter, Battery Charge Level Meter, Fault Indicator, Overload Indicator, Silent Mode Indicator, AVR in Use, Battery in Use, Input Voltage Level, Output Voltage Level, & Estimated Run-Time based on Actual Load.

#### **AC INPUT POWER:**

- AC Input Voltage Range: 140V ~ 300V, 50Hz / 60 Hz (+/- 5Hz) auto-sensing
- Over Voltage Protection: Surge up to 400V and able to handle prolonged Over Voltage periods

#### **CHARGING CURRENT:**

- CPS3500PRO and CPS5000PRO: 50 Amps
- CPS7500PRO: 45 Amps

#### DC INPUT POWER:

- CPS3500PRO: 24V
- CPS5000PRO and CPS7500PRO: 48V

#### **OUTPUT POWER:**

- Single Phase
- On Battery Output Voltage: Pure Sine-Wave at 230V (+/- 10%)
- On Battery Output Frequency: 50Hz / 60 Hz (+/- 1%)
- Overload Protection Scheme: On Main Power by Circuit Breaker, and on Battery Power by Internal Current Limiting
- Automatic Voltage Regulator (AVR): Boost and Buck

#### **TYPICAL TRANSFER TIME:**

- Under Normal Operation Mode: 4 ~ 6 ms
- When connected with a Generator instead to the Public Utility Power: 6 ~ 12 ms

## **EXTERNAL BATTERY INFORMATION:**

- Recommended type of battery: 12V / 100AH or 12V / 200AH
- Unlimited No. of Batteries can be connected in parallel to increase Runtime!
- CPS3500PRO: Minimum 2 x 12V batteries
- CPS5000PRO and CPS7500PRO: Minimum 4 x 12V batteries
- System can also make use 24V or 48V Batteries in a configuration that satisfies the required DC Input Power specs
- Typical Recharge Time is usually 8~12 hours depending on model and battery type used

#### **STATUS INDICATORS and CONTROLS:**

- Power-On LED and Multi-function LCD Display
- Manual Switch Selector with 4 Operational Modes: Normal, Bypass with AVR, Bypass, Off
- Audio Alarms for Overload, On-Battery, Low-Battery

#### **RECEPTACLES and CONNECTORS:**

2 x Schuko (or British or French) type, and Terminal Block

Optional build-in Communication Module on the provided Card Expansion Slot: SNMP/HTTP, USB, or RS-232

#### MANAGEMENT and CONTROL:

- Manual Self-Test, Auto Re-Charge and Auto Re-Start
- Easy Mobility on Wheels
- SNMP/HTTP optional adapter for Remote Access & Management via LAN/Internet
- Power Panel<sup>®</sup> elaborate software for Computer Connectivity and Management Control

PHYSICAL INFORMATION:

CPS3500PRO and CPS5000PRO: 330 (L) x 260 (W) x 440 (H) mm Dimensions:

CPS7500PRO: 330 (L) x 360 (W) x 440 (H) mm

CPS3500PRO: 37kg. CPS5000PRO: 44kg. CPS7500PRO: 55kg Weight:

Storage Temperature: -15°C ~ +45°C

Operating Temperature: 0°C ~ 40°C. Operating Humidity: 0%~95% non-condensed.

CyberPower's Manufacturing Facilities are ISO 9001:2000. ISO 14000, and QC080000 Approved