

# Defender Tower

650VA | 1200 | 1600VA | 2000VA

Line Interactive UPS



The **Defender Range** uses Automatic Voltage Regulation (AVR) to minimise the effects of fluctuations in input voltage, protecting your valuable equipment from power line disturbances.

To protect your valued equipment against damaging surges, the Defender has been designed to incorporate the best surge protection in its class. The stylish LCD display, user replaceable, hot swappable batteries and Australian sockets makes the Defender the complete package at this level.

## Features

### Surge Protection

- Offering the best protection in its class, the Defender protects against damaging surges.

### Informative LCD display

- Modern, stylish LCD display indicates voltage in/out, amount of load and remaining battery time.

### Buck and Boost AVR for Voltage Stabilization

- The AVR automatically bucks/boosts unstable fluctuating utility voltages, bringing them within 10% of nominal voltage range and thereby protecting valuable equipment.

### Hot Swappable batteries

- Batteries are easily hot swappable and user replaceable, extending the service life of your UPS.

### Auto restart when AC recovers

- After an extended power outage the UPS will turn back on and resume equipment functionality once power has returned.

### Cold start function

- The UPS can turn on equipment when it is off, simply by connecting equipment and turning the UPS on. This is excellent when you need to power equipment for a short time.

### HID Communication via USB

- HID can be used for simple management with Windows, Apple, Linux and NAS devices and a large variety of industrial controllers that support HID.
- HID ensures a safe and orderly shutdown in the event of a prolonged power outage.

### NetGuard software communication via USB

- The free, downloadable NetGuard software provides complete power monitoring. Parameters such as input/output voltage, battery remaining time and load level are easily viewed. It also ensures a safe and orderly shutdown in the event of a prolonged outage.

### Silent Operation (no fans)

- Power Shield Engineers have designed the Defender range to run cool without fans. This makes it the perfect complement to Audio Visual.

### Off-mode Charging

- The plugged in UPS will continue to charge internal batteries whether the unit is on or off.

### Applications include:

- Home office applications
- Workstations
- Security applications
- Point of sale equipment
- NAS Drives



**PROTECT - BACKUP - CONNECT**

[www.powershield.com.au](http://www.powershield.com.au)

DEFENDER RANGE SELECTION GUIDE				
MODEL	DEFENDER 650	DEFENDER 1200	DEFENDER 1600	DEFENDER 2000
Model Number	PSD650	PSD1200	PSD1600	PSD2000
Capacity	650VA / 390W	1200VA / 720W	1600VA / 960W	2000VA / 1200W
Topology	Line Interactive			
INPUT				
Voltage	240Vac (Nominal)			
Voltage Range	177-290Vac			
Frequency Range	50/60Hz ± 5Hz (auto sensing)			
OUTPUT				
Output Voltage	240Vac ± 10%			
Frequency	AC mode tracks utility			
Frequency Range (Batt. Mode)	50Hz or 60Hz ±1Hz			
Transfer Time	6ms (Typical)			
Waveform (Batt. Mode)	Simulated Sine Wave			
Australian Outlets - UPS & Surge Protection	2	3		
Australian Outlets - Surge Protection	0	3		
BATTERY				
Battery Type & Number	12V / 9AH (x1)	12V / 7AH (x2)	12V / 9AH (x2)	
Typical Recharge Time	6 hours recover to 90% capacity			
Backup Time (50% Load)	6 min	13 min	10 min	5.5 min
PROTECTION				
Full Protection	Overload, discharge, thermal, short circuit and overcharge protection			
Surge Protection	312Joules / 6500Amps	936Joules / 19500Amps		
COMMUNICATIONS & MANAGEMENT				
Interface	USB interface			
Software	NetGuard® supports - Windows®, Linux, Unix and Mac (Free Download)			
HID	Supports Windows, Apple, Linux, NAS and various industrial controllers			
LCD Alarm	AC Mode, Battery Mode, Low Battery (Batt. Mode), Fault, Overload			
Audible Alarm	Battery Mode, Low Battery (Batt. Mode), Fault, Overload			
PHYSICAL				
Dimension L x W x H (mm)	328 x 100 x 145	397 x 146 x 205		
Net Weight (kgs)	5.2	11.5		
OPERATING ENVIRONMENT				
Temperature	0-40°C			
Humidity	0-90% RH (non-condensing)			
Noise Level	Less than 5dBA @ 1 meter (no fan)			
COMPLIANCE				
Safety/EMC	(A-tick PSD650) EN62040-1 -1 2003, IEC60950-1 : 2001, EN62040-2 2006			
RoHS	Directive 2011/65/EU			

\* Specifications are subject to change without prior notice.

\* UPS output capacity is calculated at PF = 0.7.

### LCD DISPLAY 3



1. Input voltage/remaining backup time
2. Output voltage
3. AC mode indicator
4. Battery mode indicator
5. Load level indicator, flashing indicates overload
6. Battery capacity indicator, flashing indicates low battery level

### REAR VIEW



PSD650



PSD1200 | PSD1600 | PSD2000

