



# Switched Mode DC Power Supply



<http://www.casa.co.nz>

© copyright: 16/01/2019

Type: **12V-38A-460W-HSTNS-PL14**

**DRAFT**

HP: 499250-201

Rear Panel View & Basic Connection Details

**WARNING - output negatives are earthed**

## General Data

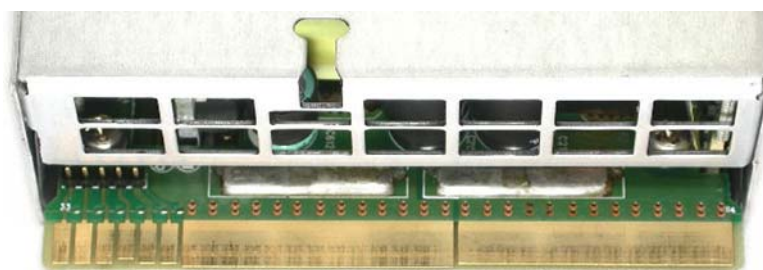
**Brand:** HP (Common Slot series)  
**HP Part #:** 499250-201  
**Spares #:** 511777-001  
**Model:** HSTNS-PL14  
**OEM:** PS-2461-1C-LF LITE-ON

**Input Voltage:** 100~240V  
**Input Current:** Up to 6A @100V, 3A @240V  
**Mains Input Connection:** IEC C14 chassis plug  
**Output Voltage:** **12.0V** (internally adjustable  $\pm 1\%$ )  
**Output Current:** Up to **38.3 Amps** (tested to 42A)  
**Remote Sensing:** No  
**Minimum Load Current:** 1% (will run no-load)  
**Over current protection:** Yes (%)  
**Over/Under voltage protection:** Yes  
**Management Voltage:** 12V Standby Output  
**Management Current:** up to 2.5A  
**Total Output power:** 460W  
**Operating temperature:**  $+5^{\circ}\text{C} \sim +40^{\circ}\text{C}$ .  
**Operating frequency:** 50-60Hz  
**Conversion efficiency:** Typically  $>95\%$  (load dependant)  
**Power Factor:**  $>0.90$ . APFC  
**Power indicator:** Yes  
**Over temperature protection:** Yes  
**Wiring:** PC Board Edge 0.1" pitch 2 rows of 32 pins

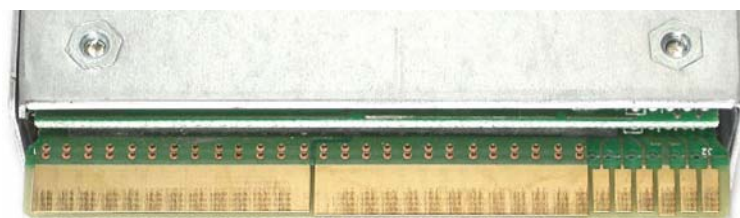
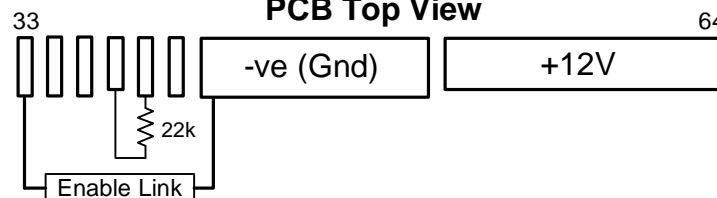
**Size:** 240 x 86 x 40 mm (nominal LxWxH)  
**Fixing:** Intended to sleeve mount  
**Weight:** ~0.97kg

## Package & Options include:

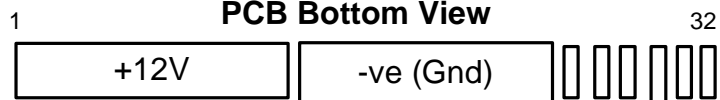
**1 x 12V 38A 460W DC power supply and 22k resistor.**  
**Optional:** IEC mains input cable, flexible 50~100A output cable and printed circuit board output connector (refurbished EDAC 345-064-524-201, or equivalent, rated 3A per pin negotiable while stocks exist. Circuit breakers and other parts will be provided upon detailed request.



## PCB Top View



## PCB Bottom View



**NOTICE** – the information on this page is not guaranteed for accuracy – CASA accepts no responsibility (neither expressed nor implied) for any errors or the consequence therefrom.

## General Installation & Operation

### Overview:

This DC Power Supply is a very high quality self-contained unit deemed usable in applications where 12V DC is required at continuous currents up to 62 Amps with good regulation and compact size... typical applications may include:

LiPo battery charging, Amateur FM, SSB and TV transmitters, CNC machines-motor drive, original computer server systems etc..

**Operation:** Deploy adequately sized cable etc., for connection to the mains supply and the DC output. Add the appropriate control wire jumpers or switches etc. to render the supply operational.

The supply requires two additions to bring the supply into Run mode, a jumper from 33 to -ve and a 22k resistor from 36-37. The fan runs at low speed while the supply is cool and speeds up with increasing temperature. An optional SPST switch in the GND – 33 line will allow the 12V supply to be shut down reducing the fan noise without disabling the 12 Volt SB supply.

**Mounting:** These units were originally deployed in 19" rack-mounted hot-swap sleeves (as part of a major computer server infrastructure) and only require adequate ventilation at the ends to facilitate un-interrupted air-flow of the internal axial fan.

Note - Free-standing or custom fixing is at the discretion of the user.

**Adjustments:** There are **no external adjustments**, however, for the technically competent, some internal adjustments may be made to suit special application including raising the output to 13.0V. There are various WWW resources offering 'advice' along these lines.

**Connection:** In the absense of an original sleeve and mating connector, some imagination using industry-standard practices can be applied to achieve practical connection to the high-current load terminations. A standard 0.1" 32 way 2 row connector will mate to the output PCB tracks. Note - There are various WWW resources offering 'advice' on using the included rear Hot-Swap connections.

**Control:** See a typical connection and control schematic/diagram on the left. We welcome users comments and suggestions for improving this sheet.

**Caution:** This supply is capable of outputting destructive power levels! Suitably rated protective fusing or circuit breakers should be provided on the 12 Volt rail to avoid the risk of fire and/or destruction of your connected equipment under fault conditions.