

Preliminary Sheet_DPS-400_EN_1.3_2013 Update 19/08/2013

DPS-400/52 Switching power supply For Audio



Features:

- High efficiency (>90%)
- Low profile (35mm)
- Ultra low noise/EMI
- Up to 10A(550W)
- Full protections
- Power-Unit shield
- Weight 330g.

Applications:

- D-Class,A-B MosPower Amplifiers
- Toroidal trafo. Replacement
- Special Applications

Description

The **DPS400** is a Unregulated switching power supply (Ultra low RFI & EMI) **for audio uses.**

It was specifically developed with shielded power-unit and a special wave signal to driving inductor to reduces noise/EMI on D-Class and MosPower audio amplifiers up to 2x240W rms(4R). (D-Class)

In addition, this model is equipped with an (active or Passive power filter 100Hz, depend the version). this helps at correcting the power factor on the VAC and reduces the output ripple. Also contributes to a warmer sound.

The **DPS400/52** default configuration provides +/- 52V on DC output, a simple way for other uses is the "**CustomizationForU**", we can provide the DPS400 with a wide DC VOut range (+/- 24 ~ 58V).

Contact us for more info (support@audiopower.it).

On-board protections ensures a fast supply switch-off for: **short circuit, overload, UVLO, over temperature.**

Developed and assembled in Italy with high quality materials and manufacturing.



RoHS
compliant
2002/95/EC

CE EMC

Specifications

INPUT-VOLTAGE	190 ~ 250VAC
FREQUENCY RANGE	50 ~ 60Hz
STANDBY AC CURRENT	1.5mA
EFFICIENCY	>90% (25°, 230VAC,100KHz PWM)
DC VOLTAGE (1)	+/- 52V 10A (14A repetitive peak current)
DC VOLTAGE (2)	+/- 22V 2x250mA (LC-Filtered, unregulated)
DC VOLTAGE (3)	5 ~ 15V 400mA (LC-Filtered, regulated LM317) GND-REF or VN-REF (class D driver Supply,depeand the version)
REMOTE CONTROL CN	+12V 20mA (see note "Remote Control")

RIPPLE & NOISE	40mV rms (100Hz-2x400mA) -78dB (Fo: 107 Khz) at Output
SETUP TIME	800ms (@230VAC)
OVERLOAD	16A (200ms delay – shut down auto-recovery)
SHORT CIRCUIT	Shut down permanent (auto-recovery)
OVER TEMPERATURE	90°C ± 5°C (shut down auto-recovery)
WORKING TEMP/HUMIDITY	0 ~ 40°C 20 ~ 90% RH non-condensing (see note 2)
DIMENSION-WEIGHT	107x105x35mm (LxWxH) 330g.
STANDARD MODEL	DPS-400/52V,,44V,36V—PCB SOLDER (Black-Blue)

NOTES

1. All parameters measured at 230VAC input, rated load and 25°C as ambient temperature. (+/-52Vout Model).

2. For higher ambient temperature (>30°C) & intensive use, a cooling fan is recommended to prevent over-temp. protection.

3.The new release of DPS-400, includes an external filter capacitors (**PBTU-3**), set up perfectly with high quality components to ensure excellent performance in the range of 350W MOSFET Class AB. you can still add up to 5000uF per side in the case of very low loads at output of amplifiers.

Caution and warning

CAUTION: REPLACE FUSES WITH SAME TYPE AND RATING !

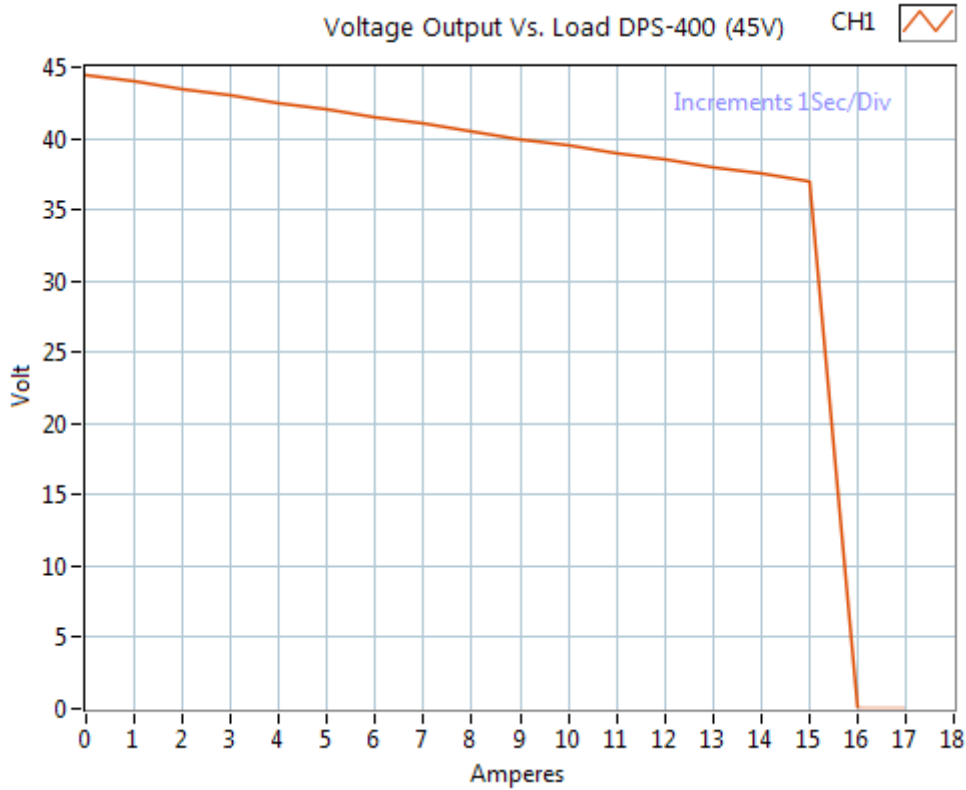
WARNING: Remote control connector (CN1) on board, is located in the **NOT ISO AREA**.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

DPS400/52V

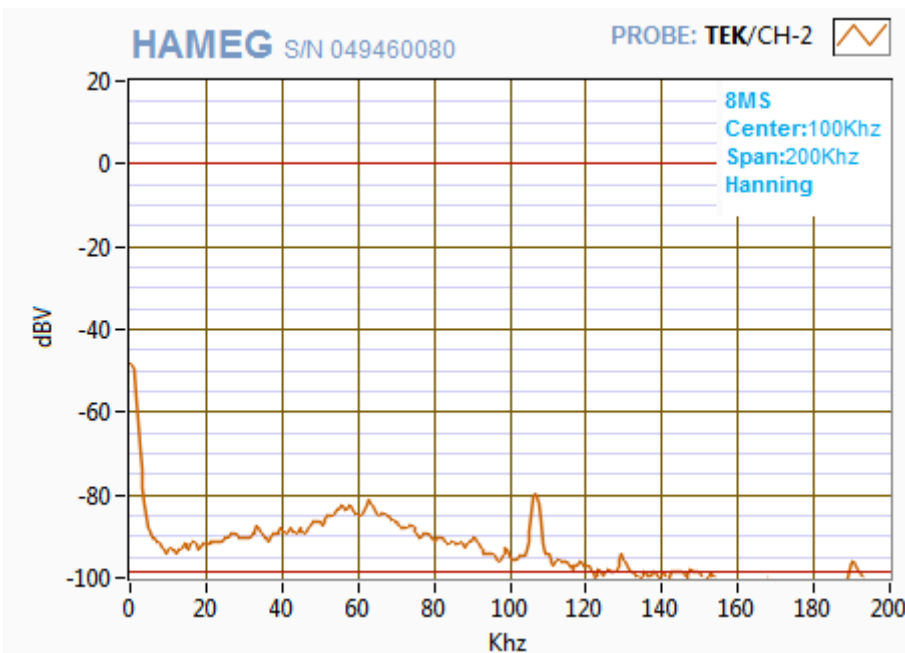
Power curve : Voltage output vs. Load (1Sec/Amp)

Conditions: 230VAC 25° 50Hz (Power curve after 30 Sec. 5A fixed on output dc)

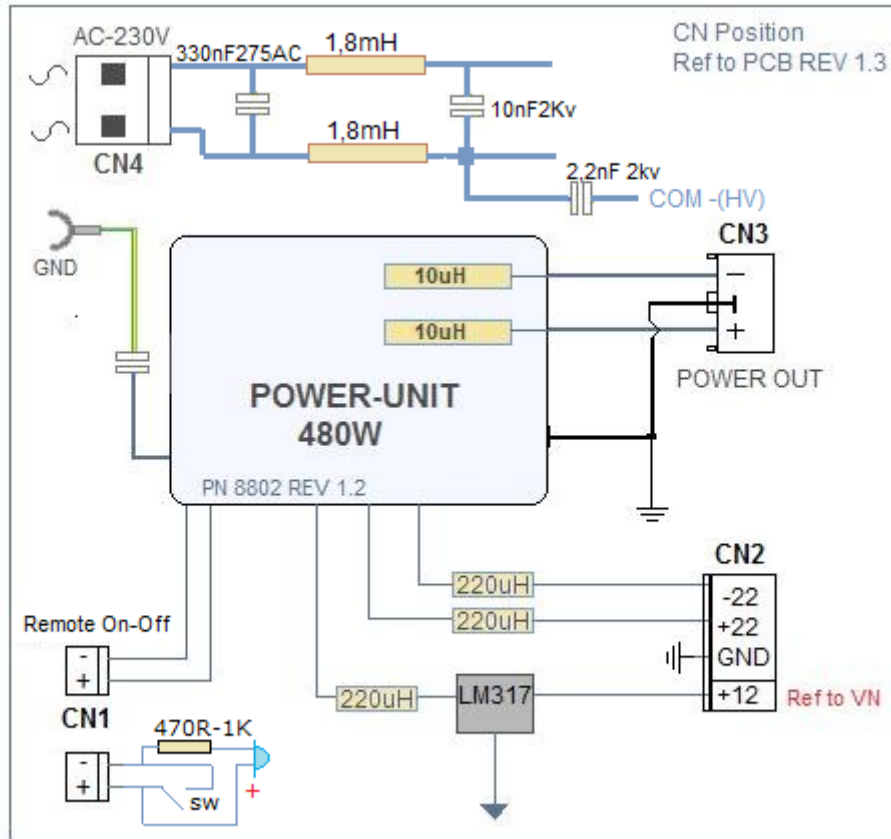


HF EMI (HF Components at Output Vcc)

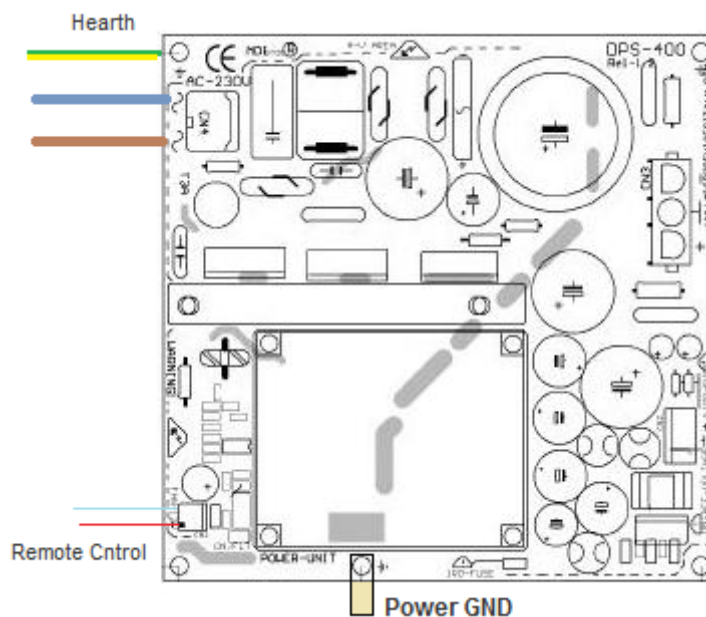
Conditions: 230VAC 25° 50Hz (2x400mA Load @ +/-52V)



Connections

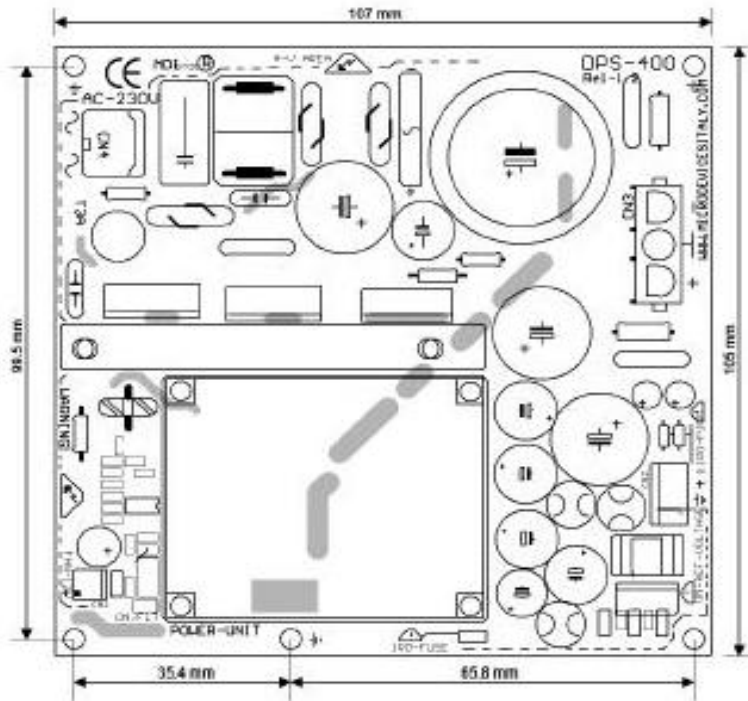


NOTE It is recommended the usage of properly wire section for the power connections (DC / AC)



NOTE Use "Power GND" to connect speaker at output. (Eliminates current loop Vs. input, and optimize output impedance of the amps.

Mechanical



NOTE

To reduce noise and ensure high output current, it is recommended to fix the **DPS-400** on a metal base using all the screws with spacers (6mm - included) between the PCB and the same base.

Package contents:

All connectors (CN1,CN2,CN3,CN4)
1x PBTU-3 (as Kit) complete Output Filter:

In Package:

10x1000uF63V ELNA LE
10x100nF250V MKT Blue
10xResistor metal-oxide 600mW15K
10x1uF100V MultiStrate SMD

1xAL "L" bracket 105x40mm
5x steel spacers 3MAx6mm
5x steel screws 3MAx5mm
1x datasheet

Info

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