

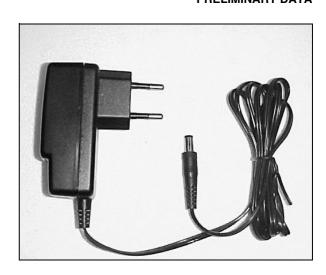
## **GSP-1216STM**

# AC/DC POWER SUPPLY

PRELIMINARY DATA

#### **FEATURES**

- EUROPEAN INPUT VOLTAGE 230 Vac
- SINGLE OUTPUT MAX 20W
- EMC COMPLIANCE ACCORDING TO EU DIRECTIVES
- SAFETY APPROVAL ACCORDING TO EN60950 / EN60065
- OUTPUT VOLTAGE PRECISION: ±5%
- INPUT FUSE PROTECTION
- OUTPUT SHORT CIRCUIT PROTECTION
- 2 WIRES DC CORD 1.5 m TERMINATED WITH 5.5 mm (ext. diam.) / 2.1 mm (int. diam.) JACK CONNECTOR
- LOW STAND BY POWER CONSUMPTION
- AVAILABLE WITH EU PLUG
- CE MARKED



## **DESCRIPTION**

The Power Plug is a high efficiency AC/DC switching mode constant voltage generator.

Designed for a variety of residential applications, this wall plug-in power supply performs up to 20W output power.

Typical reference value for the off the shelf solution is 12V 1.6A.

Coming into a compact housing, the power plug can be assembled with EU plug identified by a specific ordering number.

Output DC power is ensured via a 2 wires cord with strain relief, terminated with a barrel connector.

Typical weight is 52 grams only, without cable.

### **UPON REQUEST**

Upon request and agreement, the power supply can be customized offering different current/voltage level, a variety of plugs (among which Uk, Us, etc.) and support to gain specific Agency Approvals, as well.

Table 1. Electrical Characteristics (T<sub>amb</sub>=25°C, unless otherwise specified.)GSP-1216STM/x

| Symbol           | Parameter                         | Test Condition  | Min. | Тур. | Max. | Unit             |
|------------------|-----------------------------------|---|------|------|------|------------------|
| Vi               | Input Voltage                     |   | 187  |      | 264  | V <sub>RMS</sub> |
| Io               | Output Current                    | $T_{ambient} = 40^{\circ}C$ , $V_i = 187 \div 264 V_{ac}$ |      |      | 1.6  | Α                |
| Vo               | Output Voltage                    | $V_i = 187 \div 264 \ V_{ac}, \ I_o = 0 \div I_{max}$     | 11.4 | 12   | 12.6 | V                |
| V <sub>or</sub>  | Output Ripple                     | $I_0 = I_{max}$   |      |      | 100  | mVpp             |
| I <sub>osc</sub> | Output short circuit current      | Hiccup Mode   |      |      | 2    | Α                |
| n                | Efficiency                        | P <sub>O</sub> = 20W                                      |      | 85   |      | %                |
| P stand          | Power losses in no load condition | $V_i = 230 \text{ V}_{RMS}, I_o = 0 \text{ mA}$           |      |      | 300  | mW               |
| V <sub>is</sub>  | Isolation voltage                 | Input to output   | 3000 |      |      | V <sub>RMS</sub> |
| T <sub>op</sub>  | Operating Ambient<br>Temperature  |   | 0    |      | 40   | °C               |
| T <sub>stg</sub> | Storage Temperature Range         |   | -20  |      | 70   | °C               |

## **AGENCY APPROVALS**

The Power Plug is certified by competent agencies to comply with most popular safety and EMC requirements, including but not limited to:

EN60950

ETS300-342-1

EN60065

EN55022 CI B

2/4

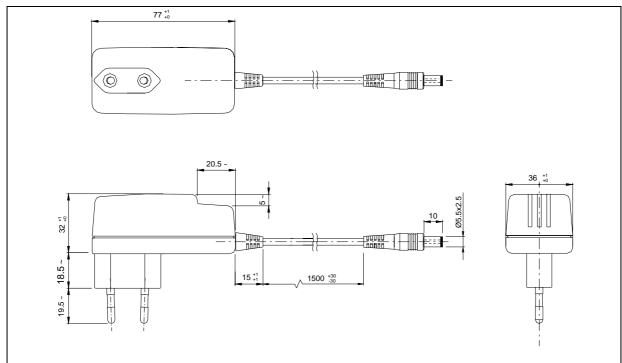
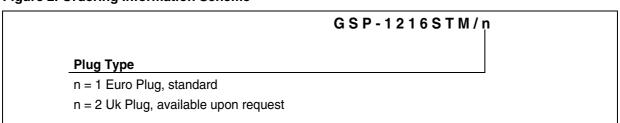


Figure 1. Mechanical Data Euro Plug version (dimensions in mm)

Figure 2. Ordering Information Scheme



**Table 2. Revision History** 

| Date          | Revision | Description of Changes            |  |
|---------------|----------|-----------------------------------|--|
| 11-Mar2005    | 1        | First Release                     |  |
| 24-May-2005 2 |          | New Jack 2.5 mm Internal Diameter |  |

47/

Information furnished is believed to be accurate and reliable. However, STMicroelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of STMicroelectronics. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. STMicroelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of STMicroelectronics.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners

© 2005 STMicroelectronics - All Rights Reserved

#### STMicroelectronics GROUP OF COMPANIES

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America http://www.st.com

47/