

PUS series Power Supply Unit (Lead-Acid Battery)

Description

The PSU series of Power Supply Unit complies with EN54-4 requirements. It is constant voltage, current limited and float charged to all types of stationary lead-acid batteries. The PSU series is suitable for all types of standby applications and are capable of supplying the load while recharging or maintaining the batteries in a fully charged condition. The PSU series is ideally suited to fire, utility, industrial, and other standby applications.



Operation

◆ Float Charge Operation

In normal charging mode, the PSU series maintains the battery at a pre-calibrated charging voltage 27.4V at 20°C while supplying any additional DC load up to the specified current limit.

When fully charged, the battery will only accept the trickle charge required to replace internal losses.

◆ Auto Boost-charge Operation

Auto boost-charge operation provides a temporary increase in output voltage, equalizing the charge between cells and maximizing battery capacity and service life.

Auto boost-charge is triggered automatically when the battery falls below a preset voltage. An auto boost cycle can also be triggered manually via panel push-button. Once the batteries have reached the boost-charge voltage level, PSU series reverts automatically to its normal float charge mode, preventing battery over-charge.



Standards

• BS EN 61204-6:2001

Low voltage power supplies, D.C. output. Requirements for low-voltage power supplies of assessed performance.

• IEC 61204 Edition 1.1:2001

Low-voltage power supply devices, D.C. output - Performance characteristics.

• BS 7430:2011

Code of Practice for Earthing.

Specification

| MODEL | VG-PSU2405 | VG-PSU2410 |
|------------------------------------|-----------------|-----------------|
| Dimensions in mm (H x W x D) | 400 x 338 x 138 | 400 x 338 x 138 |
| Input Voltage | 195~264VAC | 195~264VAC |
| Input Frequency | 47~63Hz | 47~63Hz |
| Output Voltage (DC) | 27.4V@20°C | 27.4V@20°C |
| Output Current (DC) | 5A | 10A |
| Standby Battery Capacity (maximum) | 26Ah | 48Ah |
| Charging Current (DC) | 1.1A | 2A |
| Output Voltmeter (7-segment) | Yes | Yes |
| Output Ammeter (7-segment) | Yes | Yes |
| Charge Ammeter (7-segment) | Yes | Yes |
| Mains On (Green LED) | Yes | Yes |
| Mains Fault (Amber LED) | Yes | Yes |
| Output Fault (Amber LED) | Yes | Yes |
| Battery On (Amber LED) | Yes | Yes |
| Battery Fault (Amber LED) | Yes | Yes |
| Boost Charge function | Yes | Yes |
| Boost Charge Time (max.) | 8 hrs. | 8 hrs. |
| Buzzer Mute Push-button | Yes | Yes |
| Lamp Test Push-button | Yes | Yes |
| Built-in Buzzer | Yes | Yes |
| Mains Fault Dry Contacts, NO/NC | 1A@24VDC | 1A@24VDC |
| System Fault Dry Contacts, NO/NC | 1A@24VDC | 1A@24VDC |
| Over Voltage Protection (DC) | 30V±1V | 30V±1V |
| Over Current Protection | 110~130% | 110~130% |
| Surge Protection (L-N / LN-PE) | ≤1KV/2KV | ≤1KV/2KV |
| Operating Temperature | -10°C +50°C | -10°C +50°C |
| Relative Humidity | ≤95% (40°C) | ≤95% (40°C) |
| Construction of Mild Steel Box | 1.6mm | 1.6mm |
| Standard Color | Milky white | Milky white |