

PLA series Power Supply Unit (Lead-Acid Battery)

Description

The PLA 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 PLA 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 PLA series is ideally suited to fire, utility, industrial, and other standby applications.



Operation

◆ Float Charge Operation

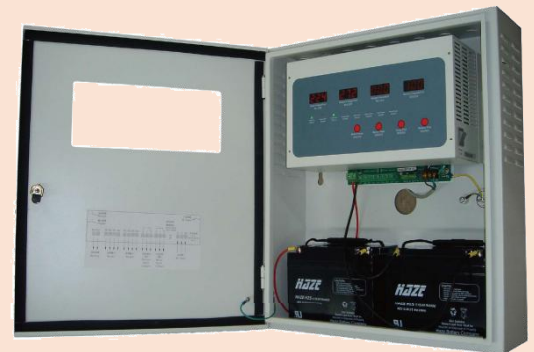
In normal charging mode, the PLA series maintains the battery at a pre-calibrated charging voltage 27.4V at 20°C while supplying any additional DC load up to the specified current limit.

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, PLA 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-PLA2410	VG-PLA2420	VG-PLA2430	VG-PLA2460
Dimensions in mm (H x W x D)	550 x500 x180	550 x500 x180	550 x500 x180	650 x500 x180
Input Voltage	195~264VAC	195~264VAC	195~264VAC	195~264VAC
Input Frequency	47~63Hz	47~63 Hz	47~63 Hz	47~63 Hz
Output Voltage (DC)	27.4V@20°C	27.4V@20°C	27.4V@20°C	27.4V@20°C
Output Current (DC)	10A	20A	30A	60A
Standby Battery Capacity (maximum)	48Ah	72Ah	144Ah	240Ah
Charging Current (DC)	2A	3A	6A	10A
Input Voltmeter (7-segment)	Yes	Yes	Yes	Yes
Output Voltmeter (7-segment)	Yes	Yes	Yes	Yes
Output Ammeter (7-segment)	Yes	Yes	Yes	Yes
Battery Capacity Meter (7-segment)	Yes	Yes	Yes	Yes
Mains On (Green LED)	Yes	Yes	Yes	Yes
Mains Fault (Amber LED)	Yes	Yes	Yes	Yes
System On (Green LED)	Yes	Yes	Yes	Yes
System Fault (Amber LED)	Yes	Yes	Yes	Yes
Battery On (Amber LED)	Yes	Yes	Yes	Yes
Battery Fault (Amber LED)	Yes	Yes	Yes	Yes
Earth Fault (Amber LED)	Yes	Yes	Yes	Yes
Boost Charge (Amber LED)	Yes	Yes	Yes	Yes
Boost Charge Push-button	Yes	Yes	Yes	Yes
Boost Charge Time (max.)	8 hrs.	8 hrs.	8 hrs.	8 hrs.
Buzzer Mute Push-button	Yes	Yes	Yes	Yes
Lamp Test Push-button	Yes	Yes	Yes	Yes
Battery Test Push-button	Yes	Yes	Yes	Yes
Built-in Buzzer	Yes	Yes	Yes	Yes
Mains Fault Dry Contacts, NO/NC	1A@24VDC	1A@24VDC	1A@24VDC	1A@24VDC
System Fault Dry Contacts, NO/NC	1A@24VDC	1A@24VDC	1A@24VDC	1A@24VDC
AC Input Breaker Protection	Yes	Yes	Yes	Yes
Over Voltage Protection (DC)	30V±1V	30V±1V	30V±1V	30V±1V
Over Current Protection	110~130%	110~130%	110~130%	110~130%
Surge Protection (L-N / LN-PE)	≤1KV/2KV	≤1KV/2KV	≤1KV/2KV	≤1KV/2KV
Operating Temperature	-10°C +50°C	-10°C +50°C	-10°C +50°C	-10°C +50°C
Relative Humidity	≤95% (40°C)	≤95% (40°C)	≤95% (40°C)	≤95% (40°C)
Safety Standard	EN60950	EN60950	EN60950	EN60950
EMC Standard	EN61000& EN55022-A	EN61000 & EN55022-A	EN61000& EN55022-A	EN61000& EN55022-A
Cooling Method	Fan	Fan	Fan	Fan
Construction of Mild Steel Box	1.6mm	1.6mm	1.6mm	1.6mm
Finish coat	Epoxy powder	Epoxy powder	Epoxy powder	Epoxy powder
Standard Color	Milky white	Milky white	Milky white	Milky white