

HELIOS  
POWER SOLUTIONS



# PL Series Industrial UPS





Our PL Series Industrial UPS are suitable for all these sectors >>



Defence



IT & Telcom



Oil & Gas



Transportation



Power Utilities



Critical Manufacturing

# PL Series Industrial UPS

**HELIOS PL Series Industrial UPS is designed for high reliability to ensure your operational reliability.**

For this we have come up with a brand new series combining robust technology of past and modern technology to provide the most reliable solution.

Our goal is to keep your systems running 24/7. With its customizable design, PL Series is ultimately flexible for your requirements, with its user friendly interface you can even apply your own configuration changes. 20+ years spare parts availability and 20+ years of design life will change your opinion on backup solutions.

High grade protection level up to IP54 ensures the system works in every harsh condition. Modular board topology with hot swap operation enables you to carry out a swift and effective maintenance and repair.



## Features

- Wide input voltage tolerance ( $\pm 20$ )
- Wide input frequency tolerance ( $\pm 10$ )
- Pure Sine Wave Output
- 50 to 400Hz operation
- Input and output isolation transformer
- IPM or IGBT technology
- Faster processing with DSP control
- High Overload Capability
- Ingress Protection: IP42
- Audible & LED Alarm
- User Friendly Visual Interface (All parameters, calibrations can be made through front panel)
- Assign your alarms to your dry contact outputs as you wish
- Compatible with ModBus Protocol
- TMS protection at all terminals
- Split Bypass
- Automatic start and fault recovery
- Self diagnostics with log records
- Smart Charging Facility (Automatic Charge, Boost Inhibit)
- Modular Board Structure for easier replacement and repair

# Built to last



## Ideal for:

- Combined Cycle Power Plants
- Hydro Power Plants
- Chemical Plants & Refineries
- Cement, Metal and Steel Factories
- Power Transmission Plants
- MV Substations
- Oil and Gas Refineries
- Off Shore Petrol Platforms
- Hospitals and Surgery Rooms
- Radiology (MR, X-Ray)
- Aircraft Stations
- Onshore Docks
- Ship decks

# Why PL Series?

- ✓ **Flexible and customized design**
- ✓ **Robust Technology**
- ✓ **Buy and forget mentality**

## Add-on Options

- 2 Source input
- 12 pulse rectifier (10% Input THDi)
- <5% Input THDi with harmonic filter
- Various voltage settings for different countries
- Removing input neutral at site
- Bypass Isolation (Scott)
- Bypass Voltage Regulator (Servo/Static)
- Fusible Surge Suppression (AC/DC)
- Redundant Fans
- Natural Cooling + Smart Fan System
- Cabinet colour can be chosen from RAL codes
- Cable Entry (Top/side/bottom/rear)
- Ingress Protection: up to IP54
- Modbus RTU over RS485 / Modbus TCP / Profinet / SNMP / IEC61850, 8-16 relays NO/NC alarm outputs
- Automatic Battery Test
- Touch Panel with Mimic Diagram
- Dual Redundant Operation
- DC Load supply Protections
- Temperature Compensating Charging
- Auxiliary Trip Contact
- TMS or LSI/G Protection
- Dropper (for DC loads), LVD for battery protection
- AC/DC Earth Fault Protection (adjustable)
- Phase Voltage/Sequence protection
- Parallel operation up to 2



## Enhanced Capabilities

To understand your system better, you have to communicate better. That's why our PL Series presents multiple communication options to get in touch with your UPS.

4 relay (16 optional) NO/NC alarm outputs allows for remote monitoring. Any available alarms can be assigned to mentioned relays which you can combine or classify.



## Communication Interfaces



### Fully controllable and monitorable systems

**Standard:**

- Modbus RTU over RS232 + 4 relays NO/NC alarm outputs

**Optional:**

- Modbus RTU over RS485
- Modbus TCP
- Profinet
- SNMP
- IEC61850
- 8-16 relays NO/NC alarm outputs

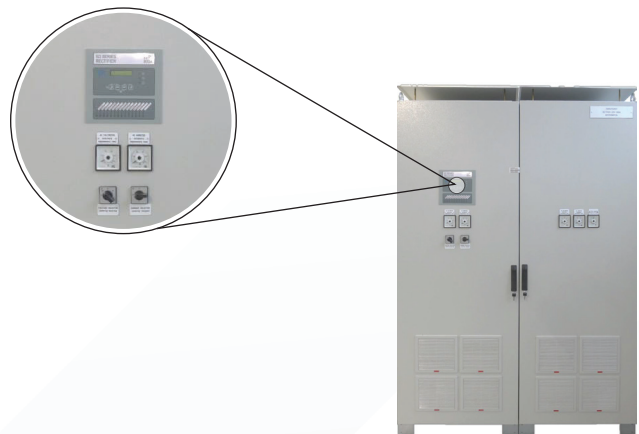
### Our Visual Interfaces options

**Standard:**

- LCD + Led Panel

**Optional:**

- Graphic Touch Screen Panel
- Led Mimic Panel



# PL Series Industrial UPS



INPUT	
Input Voltage (1Ph)	110VAC to 275VAC ± 15% VAC
Input Voltage (3Ph)	190VAC to 480VAC ± 15% VAC
Frequency	50, 60 or 400Hz ± 10%
Rectifier Type	6 pulse / 12 pulse / IGBT
Input THDi	30% (6p) / 10%(12p) / 5%(IGBT)
OUTPUT	
Output Voltage (1Ph)	110VAC to 275VAC ± 1% VAC (Bypass applies)
Output Voltage (3Ph)	190VAC to 480VAC ± 1% VAC (Bypass applies)
Capacity (kVA)	5 to 200kVA (3:1) / 5 to 600kVA (3:3)
Frequency	50, 60 or 400Hz ± 1%
Efficiency	Up to 90% (6/12 pulse) – Up to 93% (IGBT)
Power Factor	0.8
Output THDu	2% @linear load / 5% @non-linear load
Crest Factor	3:1
Recovery Time	25ms (to within 1%)
Overload	continuous @ 110%, 10mins @ 110-125%, 1mins @ 125-150%, bypass >150%
DC BUS	
DC Ripple	1% with battery, 2% without battery
DC Nominal Voltage	110V to 650VDC
Battery Type	VRLA12 / OPzV / OPzS / NiCad
PHYSICAL CHARACTERISTICS	
Protection Degree	Standard: IP42, (Optional: IP54)
Cooling System	Forced Ventilation with Redundant AC Fans
Cable Entry	Standard: Bottom (Optional: Top, Rear, Side)
Cabinet Color	Standard: RAL7032,7035 (Optional: Others)
ENVIRONMENT	
Operating Temperature	0 to 50C°
Storage Temperature	-25 to 70C°
Relative Humidity	up to 90% (non-condensing)
Operating Altitude	1000m from MSL (1% derate each 100m after 1000m)
Acoustic Noise	50 to 73 dBA (depending on kVA rating)
StANDARDS	
IEC Class	62040-1, 62040-2



**HELIOS**  
POWER SOLUTIONS

UNITED ARAB EMIRATES

AUSTRALIA

SINGAPORE

NEW ZEALAND

World-class  
engineering,  
local focus.

