



# ELS Series PCS

## Single-phase Low Voltage Battery Inverter for residential storage

# ELS-11.4

## Introduction

**APstorage introduces its 1st generation of smart Power Conversion Systems with the ELS battery charger solution.**

Together with compatible low voltage batteries connected, it becomes the ideal AC coupling storage solution for residential PV applications. With automatic energy management features based on intelligent software and integrated monitoring, system owners can choose between back-up, self-consumption, peak valley time, and peak shaving modes to secure critical loads during power outages and maximize energy savings for their houses.

## Features

### Safety

- ▶ Ingress protection IP65
- ▶ 48V low battery voltage input
- ▶ Intelligent charging technology, protecting battery life
- ▶ High and low voltage isolation topologies, ensuring personal safety

### Flexible

- ▶ Compatible with multiple battery brands
- ▶ Provide dedicated interface for connecting generator
- ▶ AC-Coupled solution for new or existing installations
- ▶ Supports 120/240V split-phase output, no need to connect external transformer
- ▶ Provides dry contacts for controlling generator or load
- ▶ Support third-party control functions such as Modbus and Cloud API

### Intelligent

- ▶ Support split-phase unbalanced output
- ▶ UPS-level switching time <10ms
- ▶ Innovative multiple energy control modes: Backup power supply, Self-consumption, Peak and valley, and Peak shaving
- ▶ 24-hour intelligent energy management system
- ▶ Intelligent operation and maintenance platform with EMA

### Performance

- ▶ Nominal power rating up to 11400VA
- ▶ Peak backup power up to 17100VA
- ▶ Max efficiency up to 95.6%

# Datasheet | ELS Series PCS ELS-11.4

**Model**

**ELS-11.4**

**Region**

**NA**

## General Specifications

|                                              |                                                                                       |
|----------------------------------------------|---------------------------------------------------------------------------------------|
| Dimensions W/H/D                             | 875×474×279mm (34.4"x18.7"x11")                                                       |
| Weight                                       | 49.5kg (109lbs)                                                                       |
| Maximum Efficiency                           | 95.6%                                                                                 |
| Operating Ambient Temperature Range          | -25°C-65°C (-13°F-149°F), >45°C derating                                              |
| Storage Temperature Range                    | -40°C-85°C (-40°F-185°F)                                                              |
| Ingress Protection                           | IP65                                                                                  |
| Relative Humidity                            | 10%-90%                                                                               |
| Cooling                                      | Smart cooling                                                                         |
| Communication Ports                          | WIFI/Bluetooth/RS485/CAN                                                              |
| Warranty                                     | 10 Years                                                                              |
| Grid Regulation<br>Safety and EMC Compliance | UL1741; CSA C22.2 No. 107.1-16; CA Rule21; UL1741 CRD<br>UL1741SB; IEEE1547; SRD-V2.O |

## Battery Input/Output Data

|                                      |                         |
|--------------------------------------|-------------------------|
| DC Battery Input Voltage             | 40-60VDC                |
| Charging Strategy for Li-Ion Battery | Self-adaption to BMS    |
| Charging Curve                       | 3 Stages / Equalization |
| Max Continuous Charge Current        | 240A                    |
| Max Continuous Discharge Current     | 240A                    |

## AC Input/Output Data (On-grid)

|                                             |                                                    |
|---------------------------------------------|----------------------------------------------------|
| Max. Continuous Output Power <sup>(1)</sup> | 11400VA, 10000VA                                   |
| Max. Continuous Output Current              | 47.5A/48A                                          |
| Max. Continuous Input Power <sup>(1)</sup>  | 22800VA, 20000VA                                   |
| Max. Continuous Current From Utility Grid   | 95A/96A                                            |
| Nominal Voltage (L1-L2/L-N, L1-L2)          | 240VAC/120VAC , 208VAC                             |
| Adjustable Voltage Range                    | 211-264V, 183-228V <sup>(2)</sup>                  |
| Nominal Frequency/Range                     | 60Hz/58.8-61.2Hz <sup>(2)</sup>                    |
| Power Factor                                | >0.99 (Adjustable from 0.8 leading to 0.8 lagging) |
| THD                                         | <3%                                                |
| Grid Connection                             | Single-phase                                       |

## AC Output Data (Backup)

|                                           |                       |
|-------------------------------------------|-----------------------|
| Max. Output Apparent Power <sup>(1)</sup> | 11400VA, 10000VA      |
| Peak Output Apparent Power <sup>(1)</sup> | 17100VA, 15000VA(10s) |
| Max. Output Current                       | 47.5A/48A             |
| Nominal Output Voltage (L1-L2/L-N, L1-L2) | 240VAC/120VAC, 208VAC |
| Nominal Output Frequency                  | 60Hz                  |

## AC Input Data (Off-Grid Input/Gen)

|                                          |                       |
|------------------------------------------|-----------------------|
| Max. Input Apparent Power <sup>(1)</sup> | 11400VA, 10000VA      |
| Peak Input Apparent Power <sup>(1)</sup> | 17100VA, 15000VA(10s) |
| Max. Input Current                       | 47.5A/48A             |
| Nominal Input Voltage (L1-L2/L-N, L1-L2) | 240VAC/120VAC, 208VAC |
| Nominal Input Frequency                  | 60Hz                  |

(1) xxVA@240VAC/120VAC, xxVA@208VAC

(2) Voltage/frequency range can be adjusted if required by local utility

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Specifications subject to change without notice please ensure you are using the most recent update found at web : [usa.APsystems.com](http://usa.APsystems.com)

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