



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

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	Ethernet/RS485/CAN
Warranty	10 Years
Grid Regulation Safety and EMC Compliance	UL1741; CSA C22.2 No. 107.1-16; CA Rule21; UL1741 CRD 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 ⁽¹⁾	11400VA, 10000VA
Max. Continuous Output Current	47.5A/48A
Max. Continuous Input Power ⁽¹⁾	22800VA, 20000VA
Max. Continuous Current From Utility Grid	95A/96A
Nominal Voltage (L1-L2/L-N, L-N)	240VAC/120VAC , 208VAC
Adjustable Voltage Range	211-264V, 183-228V ⁽²⁾
Nominal Frequency/Range	60Hz/58.8-61.2Hz ⁽²⁾
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 ⁽¹⁾	11400VA, 10000VA
Peak Output Apparent Power ⁽¹⁾	17100VA, 15000VA(10s)
Max. Output Current	47.5A/48A
Nominal Output Voltage (L1-L2/L-N, L-N)	240VAC/120VAC, 208VAC
Nominal Output Frequency	60Hz

AC Input Data (Off-Grid Input/Gen)

Max. Input Apparent Power ⁽¹⁾	11400VA, 10000VA
Peak Input Apparent Power ⁽¹⁾	17100VA, 15000VA(10s)
Max. Input Current	47.5A/48A
Nominal Input Voltage (L1-L2/L-N, L-N)	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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