



ELS PCS Series

Single-phase Low Voltage Battery Inverter for residential storage

ELS-7.6
ELS-9.6
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
- ▶ Support parallel connections
- ▶ Allow generator to act as grid power source
- ▶ Provide dedicated interface for connecting generator
- ▶ 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
- ▶ AC-Coupled solution for new or existing installations
- ▶ 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 96.5%

Datasheet | ELS Series PCS ELS-11.4

Model	ELS-7.6	ELS-9.6	ELS-11.4
General Specifications			
Dimensions W/H/D	875×474×279mm (34.4"x18.7"x11")		
Weight	49.5kg (109lbs)		
Maximum Efficiency	96.5%		
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	Natural convection	Smart cooling	
Communication Ports	Ethernet/RS485/CAN		
Parallel Function	Yes		
Warranty	5 Years		

Battery Input/Output Data

DC Battery Input Voltage	40-60VDC		
Battery Capacity	50-800Ah		
Charging Strategy for Li-Ion Battery	Self-adaption to BMS		
Charging Curve	3 Stages / Equalization		
Max Continuous Charge Current	168A	212A	240A
Max Continuous Discharge Current	168A	212A	240A

AC Input/Output Data (On-grid)

Max. Continuous Output Power	7600VA/6600VA	9600VA/8300VA	11400VA/10000VA
Max. Continuous Output Current	31.7A	40A	47.5A/48A
Max. Continuous Input Power	15200VA/13200VA	19200VA/16600VA	22800VA/20000VA
Max. Continuous Current From Utility Grid	63.3A	80A	95A/96A
Nominal Voltage	240VAC/120VAC , 208VAC		
Adjustable Voltage Range	211-264V, 183-228V ⁽¹⁾		
Nominal Frequency/Range	60Hz/58.8-61.2Hz ⁽¹⁾		
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	7600VA/6600VA	9600VA/8300VA	11400VA/10000VA
Peak Output Apparent Power	11400VA/9900VA(10s)	14400VA/12400VA(10s)	17100VA/15000VA(10s)
Max. Output Current	31.7A	40.0A	47.5A/48A
Nominal Output Voltage	240VAC/120VAC, 208VAC		
Nominal Output Frequency	60Hz		

AC Input Data (Off-Grid Input/Gen)

Max. Input Apparent Power	7600VA/6600VA	9600VA/8300VA	11400VA/10000VA
Peak Input Apparent Power	11400VA/9900VA(10s)	14400VA/12400VA(10s)	17100VA/15000VA(10s)
Max. Input Current	31.7A	40.0A	47.5A/48A
Nominal Input Voltage	240VAC/120VAC, 208VAC		
Nominal Input Frequency	60Hz		

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

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