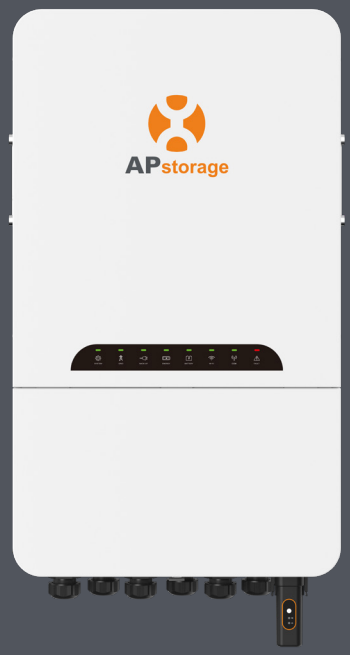
APstorage

Safe and **Smart**
Energy Management System



ELT Series PCS

3-phase Low Voltage Battery Inverter for Residential Storage

ELT-10
ELT-12

Introduction

APstorage introduces its 1st generation of smart Power Conversion Systems with the ELT series products, the three-phase AC coupled Low Voltage battery charger solution for residential PV applications.

With automatic energy management features based on intelligent software and integrated monitoring, system owners can choose between multiple energy control modes including back-up power supply, self-consumption, peak valley time and peak-shaving modes to secure critical loads during power outages, maximize energy savings and optimize electricity bills.

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
- Support both on-grid & off-grid PV function
- AC-Coupled solution for new or existing installations
- Support third-party control functions such as Modbus and Cloud API.

Intelligent

- Support 100% three-phase unbalanced input/output
- UPS-level switching time <10ms
- Innovative multiple energy control modes: Backup power supply, Self-consumption, Peak and valley, and Peak shaving
- AI mode allows users to take advantage of dynamic electricity tariffs and optimize their savings
- 24-hour intelligent energy management system
- Intelligent operation and maintenance platform with EMA

Performance

- Nominal power rating up to 12000VA
- Peak backup power up to 18000VA
- Max efficiency up to 96.5%

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Datasheet | ELT Series PCS

Model	ELT-10	ELT-12[1]
General Specifications		
Dimensions W/H/D	474mm × 818mm × 275mm	
Weight	45.75kg	
Maximum Efficiency	96.5%	
Operating Ambient Temperature Range	-25°C-65°C, >45°C derating	
Storage Temperature Range	-40°C-85°C	
Environment category	Outdoor	
Ingress Protection	IP65	
Pollution Degree Classification	PD2	
Noise	＜40dB[3]	
Relative Humidity	4%-100%	
Protective Class	Class I	
Over Voltage Category	III (MAINS), II (Battery)	
Cooling	Smart cooling	
Permissible Altitude (m)	≤2000m	
Communication Ports	WIFI/Bluetooth/RS485/CAN	
Wi-Fi Frequency Range	2412MHz - 2472MHz	
Wi-Fi Maximum Power (EIRP)	17.67 dBm	
Bluetooth Frequency Range	2402MHz - 2480MHz	
Bluetooth Maximum Power (EIRP)	8.57 dBm	
Grid Regulation	VDE-AR-N 4105, EN 50549-1, EN 50549-10, NF EN50549-1, NF EN50549-10, PN EN50549-1	
Safety	EN IEC 62477-1	
EMC	EN IEC 61000-6-1, EN IEC 61000-6-2, EN IEC 61000-6-3, EN IEC 61000-6-4, EN 55011, EN 62920	
Warranty	10 years	
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	225A	240A
Max. Continuous Discharge Current	225A	240A
AC Input/Output Data (On-grid)		
Max. Continuous Output Power	10000VA	12000VA
Max. Continuous Output Current[2]	14.5A	17.4A
Max. Continuous Input Power	20000VA	24000VA
Max. Continuous Input Current From Utility Grid	29A	34.8A
Nominal Output Voltage	400V, 3L/N/PE	
EPS Switch Time	10ms	
Nominal Output Frequency/Range	50Hz/47.5Hz-51.5Hz	
Output Power Factor	>0.99 (Adjustable from 0.8 leading to 0.8 lagging)	
THD	<3%	
Grid Connection	Three-phase	
AC Output Data (Backup)		
Max. Output Apparent Power	10000VA	12000VA
Peak Output Apparent Power	15000VA(10s)	18000VA(10s)
Max. Output Current	14.5A	17.4A
Nominal Output Voltage	400V, 3L/N/PE	
Nominal Output Frequency	50Hz	
AC Input Data (Off-Grid Input/Gen)		
Max. Input Apparent Power	10000VA	12000VA
Peak Input Apparent Power	15000VA(10s)	18000VA(10s)
Max.Input Current	14.5A	17.4A
Nominal Input Voltage	400V, 3L/N/PE	
Nominal Input Frequency	50Hz	

(1) The Max. Continuous Output Power can be factory set to 6/8/10kVA based on local requirement.
(2) The ELT series maximum output current can be limited to match local requirements. Please refer the user manual on how to set the household Current Limit Function.
(3) To keep the PCS noise below 40dB, the ambient temperature must be below 40°C. This data was tested at a distance of 1m under typical conditions in the APstorage laboratory.

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