



ELD Series

On-Grid Hybrid Inverter



Overview

The ELD6-15k series low-voltage split-phase on-grid hybrid inverter is designed for residential, industrial, and commercial energy storage applications. It integrates energy storage and grid export capabilities for intelligent, efficient energy management. During the day, PV energy can be routed to power loads, charge batteries, or export to the grid, helping improve returns and operational flexibility. At night or during peak-rate hours, the battery can discharge to support continuous power supply. The system also supports charging batteries from the grid, allowing energy to be stored anytime for backup.

Built for diverse and demanding usage scenarios, the ELD Series delivers safe, reliable performance while helping maximize self-consumption and giving users greater control over their energy, balancing cost savings with energy independence.

Features

High Efficiency

- 150% PV oversizing capability; Max. PV input power: 22500W
- Max.4 MPPTs; Max. PV input voltage: 500VDC; Input current per string: 20A
- Max input current: 80A
- Overload capability: 200% for 10 s

Smart Power Management

- Smart interface:
 - ① Generator connection
 - ② Load connection
 - ③ AC coupling with grid-tied PV inverters
- UPS-level switching <10 ms
- Supports 100% unbalanced loads in off-grid mode
- Parallel Capability
 - ① Up to 6 units in parallel (On-grid & Off-grid)
 - ② Multi-battery parallel support: independent or shared battery bank
- Zero export function; Feed-in power limit

User-Friendly Monitoring

- Optional LCD display
- Standard RS485 communication port, WiFi / GPRS (Optional)

Reliable & Safe

- Type 3R-rated protection
- Built-in Type II SPD
- Optional function: RSD, AFCI



Technical Specifications

Model	ELD6K	ELD8K	ELD10K	ELD12K	ELD15K
Battery Input Data					
Battery Type	Lithium/Lead Acid				
Battery Voltage Range/Rated voltage	40V-60V				
Charging mode	Three-stage charging mode or Self-adaption to BMS				
Max. Continuous Charging/Discharging Current	140A	185A	240A	275A	275A
PV String Input Data					
Max. Input Power	9000W	12000W	15000W	18000W	22500W
Max. Input Voltage	500V				
MPPT Operating Voltage Range	90V-450V				
Start-up Voltage	100V				
Nominal Input Voltage	300V				
Max. Input Current per MPPT	20A				
Max. Short Circuit Current per MPPT	25A				
Number of MPPTs/Number of Strings per MPPT	2/1	3/1	4/1		
Generator Input Data					
Rated input power	6000W	8000W	10000W	12000W	15000W
Rated input current	25A	33.3A	41.6A	50A	62.5A
Rated input voltage	L1/L2/N/PE 120V/240V				
Rated input frequency	50/60Hz				
AC Output Data (On-grid)					
Nominal Apparent Power Output to Utility Grid	6000VA	8000VA	10000 VA	12000 VA	15000 VA
Nominal Output Voltage	120V/240V split phase; 120V/208V 2/3 phase;				
Nominal AC Grid Frequency	50/60Hz				
Max. AC Current Output to Utility Grid	25A	33.3A	41.6A	50A	62.5A
Max. AC Current From Utility Grid	50A	66.6A	80A	80A	80A
Power Factor	0.99 (Adjustable from 0.8 leading to 0.8 lagging)				
Max. Total Harmonic Distortion	< 3%				
AC Output Data (Back-up)					
Max. Output Apparent Power	6,000VA	8,000VA	10,000VA	12,000VA	15,000VA
Peak Power, Time	2 times of rated power,10s				1.5 times of rated power, 10s
Max. Output Current	25A	33.3A	41.6A	50A	62.5A
Rated Grid Voltage	120V/240V split phase; 120V/208V 2/3 phase;				
Rated Grid Frequency	50/60Hz				
Output THDv (@Linear Load)	< 3%				
Switch time	< 10ms				
Efficiency					
Max. Efficiency	97.26%				
Max. Battery to AC Efficiency	96.57%				
MPPT Efficiency	99.90%				
Protection					
Protection	• PV Insulation Resistance Detection • Residual Current Detection • PV Reverse Polarity Protection • Anti-islanding Protection • AC Over current Protection • AC Short Circuit Protection • AC Over voltage Protection • Ground Fault Detection				
Surge protection	DC Type II / AC Type III				
DC Switch	Yes				
AFCI	Optional				
Rapid Shutdown(RSD)	Optional				
Environment parameters					
Operating Temperature range	-25℃~-+60℃(> 45℃ Derating)				
Relative Humidity	5% to 95%				
Altitude	4,000 m (> 2,000 Derating)				
Ingress Protection Rating	TYPE 3R				
Noise	< 60dB				
Mechanical Parameters					
Dimension L×W×D (mm)	840 × 513 × 283				
Weight (Kg)	53				
Others					
Automatic Generator Start	2 Wire Start - integrated				
Standby losses	< 30W				
Topology	Non-isolation				
Cooling Method	Intelligent air cooling				
Mounting Method	Wall mounted				
Communication with BMS	RS485/CAN				
Communication with Meter	RS485				
Communication with Portal	Wi-Fi / Bluetooth (External)				
Display	LCD/LED & APP				
Warranty	5 Years				
Certification	IEEE1547;IEEE1547.1;UL1741SB;UL1741;UL1699B;UL1998;CSA C22.2 NO.107.1;16;CSA C22.2 NO.292-18				