

Off-grid 2.56kWh Solar System

Fully set include:

Solar Panel:

620W*2pcs



Inverter:

1.2kW Off-grid*1pcs



Battery:

12.8V 200AH*1pcs
(LifePo4 Battery)



Solar Panel Rack:

Roof Type



Cables:

International standard
1*4mm² series
red and black



WIFI Module (optional):

Monitor, troubleshoot,
or communication*1pcs



MC4:



Circuit Breaker:

4pcs



CSA Solar · 2.56 kWh Hybrid Solar System

Detailed Spec Sheet

Spec 1 of 3 · 2.56 kWh LiFePO4 battery (12.8 V / 200 Ah, 12 V system) specifications

1 Battery · LiFePO4 Energy Storage (12 V System)		CSA 12 V / 200 Ah module · 4S LiFePO4
ENERGY & CAPACITY		
Usable energy	2.56 kWh	
Nominal voltage	12.8 V (4S LiFePO4)	
Nominal capacity	200 Ah	
Operating voltage range	11.2 – 14.6 V	
Cell technology	LiFePO ₄ (LFP)	
CHARGE / DISCHARGE LIMITS		
Recommended charge current (0.5C)	100 A · 1.28 kW	
Max discharge current (1C)	200 A	
OPERATING CONDITIONS		
Charge temperature	0 – 45 °C	
Discharge temperature	-20 – 60 °C	
IP rating	IP20 (indoor)	
MECHANICAL & LIFECYCLE		
Dimensions (W×H×D)	Refer to factory datasheet	
Cycle life	6,000 cycles @ 80 % DoD	
Scalability	Multiple units in parallel	
INTERFACE & COMPLIANCE		
Communication	CAN / RS485	
Application	Off-grid / Backup (12V inverter)	
Compliance	UN38.3 / IEC 62619 (LFP safety standard)	
Warranty	5 years (standard)	

Configuration summary · 2.56 kWh LiFePO4 battery (12.8 V / 200 Ah) paired with HE200-2500-O 1.2 kW off-grid inverter (12 V battery system). All kit items in the cover photo are listed in the PV section.

CSA Solar · 2.56 kWh Hybrid Solar System

Detailed Spec Sheet

Spec 2 of 3 · 1.2 kW single-phase off-grid inverter (12 V) specifications

2 Inverter · 1.2 kW Single-Phase Off-Grid (12 V)		Model: HE200-2500-O
AC OUTPUT		
AC rated output power	1.2 kW	
Nominal AC voltage	240 VAC ± 5 % (single phase)	
Nominal AC frequency	50 / 60 Hz	
Nominal AC output current	5.45 A	
Output waveform	Pure sine wave	
Phase	1	
Max efficiency	99.5 %	
BATTERY INTERFACE (DC)		
Battery rated voltage	12 V (12.8 V LFP compatible)	
Battery type	Lead-acid / Lithium	
Battery charge / discharge current	100 A	
Charging method	Two-way / three-way / automatic setting	
PV INPUT (DC)		
Maximum PV input power	0.8 kW	
MPPT voltage range	17 – 115 V	
Max PV open-circuit voltage	115 V	
Max PV DC input current	16 A	
MPPT trackers	1	
MECHANICAL & ENVIRONMENTAL		
Cooling	Intelligent air cooling	
Operating temperature	-10 – 60 °C	
IP rating	IP21 (indoor)	
Dimensions (W×H×D)	309 × 220 × 106 mm	
Net / gross weight	3.85 kg / 5 kg	
GENERAL		
Working mode	Off-grid	
Output Topology	L+N+PE	

Configuration summary · 2.56 kWh LiFePO4 battery (12.8 V / 200 Ah) paired with HE200-2500-O 1.2 kW off-grid inverter (12 V battery system). All kit items in the cover photo are listed in the PV section.

CSA Solar · 2.56 kWh Hybrid Solar System

Detailed Spec Sheet

Spec 3 of 3 · 620 W LUXEN PV module × 2 pcs + charging-time reference

3 PV Module · 620 W N-type Bifacial · 2 pcs		Model: LNDT-620ND · LUXEN SOLAR · LUXPOWER® Series N5
STC ELECTRICAL PERFORMANCE (1000 W/M², 25 °C)		
Maximum power (Pmax)	620 W	
Module efficiency	22.95 %	
Voltage at Pmax (Vmpp)	41.33 V	
Current at Pmax (Impp)	15.00 A	
Open-circuit voltage (Voc)	49.32 V	
Short-circuit current (Isc)	15.92 A	
Power tolerance	0 / +5 W	
MECHANICAL & ENVIRONMENTAL		
Cell technology	N-type Mono (LECO / SMBB) · 132 cells (6 × 22)	
Dimensions (L × W × H)	2382 × 1134 × 30 mm	
Weight	33.5 kg	
Front / rear static load	5400 Pa / 2400 Pa	
Junction box	IP68 · 3 bypass diodes · MC4 compatible	
Max system voltage	1500 V DC (IEC)	
Max series fuse rating	30 A	
Operating temperature range	-40 °C to +85 °C	
TEMPERATURE COEFFICIENTS · WARRANTY		
Temp. coeff. Pmax / Voc / Isc	-0.29 % / -0.25 % / +0.045 % per °C	
Product warranty	15 years	
Linear power warranty	30 years · 87.4 % at year-30	
Certifications	ISO 9001 / 14001 / 45001, IEC 61215, 61730, 61701, 62716, CE	

Charging time reference (2 pcs, 12 V system) · Battery recommended charge 100 A × 12.8 V = **1.28 kW**. With only 2 × 620 W panels (1.24 kWp), the array is the bottleneck — on a sunny day the array delivers only ~1.05 kW real, then ~1.00 kW into the battery: **0 % → 100 % in about 2.6 hours**. To restore faster charging, the cover image already shows **6 × 620 W (3.72 kWp)** — the 2-panel version of this marketing photo is for illustration only. All figures at 25 °C and STC conditions.