

Solar energy storage system

Elithium ESS

Reliable energy for modern living. An MPPT solar inverter and lithium battery pack in one wall-mounted unit.

Elithium 3532 · 25.6 V

LFP battery, factory fitted

Designed and built in India



2500 w

input power at peak load

3000 w

max. connected PV modules

200 %

overload capability

<15 ms

changeover in UPS mode

Overview

Solar plus storage for premium homes

The Elithium series is Statcon Energiaa's premium range of solar energy storage systems. An optimised MPPT inverter and a lithium energy pack together have the punch to run heavy loads, including a 1.5-ton inverter air conditioner, and keep the home independent of variations in the mains grid.

- ✓ Runs a 1.5-ton inverter AC on the EL 3532
- ✓ Zero battery maintenance
- ✓ Longer life and more kWh per cycle
- ✓ LFP battery factory fitted and connected
- ✓ Built to withstand overloads up to 200%
- ✓ Works well with heavy motor loads
- ✓ Wall-mounted, minimalist design
- ✓ Connect PV, grid and loads easily; no expert installation needed

Two grid modes

UPS mode for IT loads switches over in less than 15 ms. Wide-range mode for other loads accepts a grid supply from 120 to 280 V.

Highlights

Pure sine wave output

UPS and wide-range modes

DSP-based controller

16 x 2 backlit display

At a glance

Elithium 3532

Battery	LFP, 25.6 V nominal, factory fitted
Inverter output	220 V, 50 Hz pure sine wave, 2500 W peak load
Protection and cooling	IP20, temperature-controlled fan

Solar input	Up to 3000 W PV, MPPT 60–88 V
Grid charging	Up to 25 A, enable or disable
Size and weight	535 x 290 x 335 mm, about 62 kg

General and MPPT charger

Model	Elithium 3532	Nominal DC voltage	25.6 V
Type of charger	MPPT	No. of MPPT channels	One
Switching element	IGBT	Max. connected PV modules	3000 W
Max. MPPT output current	100 A	Max. battery charging current (settable)	5–45 A
Max. open-circuit PV voltage (Voc)	110 V	MPPT voltage range (Vmp)	60–88 V
Min. PV voltage	60 V	Max. input PV current	40 A
Recommended PV configuration (polycrystalline)	2 series x 3 parallel	Peak MPPT efficiency	93%

Solar inverter

Input power at peak load	2500 W	Switching element	MOSFET
Nominal battery voltage	25.6 V	Nominal output voltage	220 V
Nominal output frequency	50 Hz	Output voltage range (at nominal battery volts)	200–220 V
Max. output nominal current	9.5 A	Overloads	100–125% (120 s), 126–150% (60 s), 151–200% (5 s), >200% (immediate)
Overload restart (not in UPS mode)	3 times auto restart, then manual reset	Controller type	DSP based
Output type	Pure sine wave	Input source	PV / battery / grid
Peak inverter efficiency	>85%	Total harmonic distortion	Less than 5%
Changeover time, UPS mode	Less than 15 ms	Changeover time, wide-range mode	Less than 25 ms
No-load losses (standby)	100 mA (battery side)	UPS mode (IT loads) / wide-grid mode (non-IT loads)	Provided / provided

Battery and grid charger

Battery under-cut alarm	Lithium 24.0 V / $\leq 13\%$ SoC (settable)	Battery under-cut	Lithium 23.5 V / $\leq 10\%$ SoC (settable)
Load-dependent battery under-cut	Provided	Grid operating range (wide-UPS mode)	120–280 V (± 10 V)
Grid under / over cut recovery (wide-UPS)	130 V / 265 V (± 10 V)	Grid operating range (UPS mode)	180–260 V (± 10 V)
Grid under / over cut recovery (UPS)	195 V / 245 V (± 10 V)	Load output in bypass mode	Same voltage and frequency as input
Grid input frequency range	45–55 Hz	Max. battery charging current from grid	25 A
Battery charging from grid enable / disable	Provided	Input source supported	Grid / diesel generator

Environment and mechanical

Operating / storage temperature	0–50 °C ambient	Max. relative humidity at 25 °C	95% (non-condensing)
Degree of protection	IP20	Dimensions (W x H x D)	535 x 290 x 335 mm
Weight (approx.)	62 kg	Noise at 1 m	60 dB
Cooling	Temperature-controlled fan	Terminations	PV: MC4; battery: inbuilt; load: 16 A 5-pin AC socket; grid: 1.5 m 3-core cable
Accessories supplied	User manual, warranty card, hole fastener		

— Display, protections and indications

Protections and display

	Details
Protections	PV: reverse polarity, battery reverse power, PV power limit. Battery: under-voltage cut, over-voltage cut, reverse polarity, overcharge limit (BCL), battery fuse. Grid: over-voltage, under-voltage, over-frequency, under-frequency, grid fuse fail. Load: overload, short circuit, over-heat, output low, grid back-feed, prevents phase-to-phase grid supply.
Display parameters	PV: voltage, amps, power, today's kWh, total kWh generation. Battery: voltage, amps, charge / discharge status. Grid: voltage, frequency. Load: voltage, load %, frequency. System: operating modes (UPS / wide range), priority selection, grid charging enable / disable, battery status (charging / discharging). Start-up: welcome, firmware versions.
Display faults	PV: PV over-voltage. Battery: battery under-voltage, battery over-voltage. Grid: back-feed, under / over voltage, fuse fail. Load: overload, output short circuit. System: over-temperature.
Audio buzzer	Overloads, short circuit, low battery alarm, battery under-cut, change in grid status (beep), grid fuse fail, PV over-voltage, grid over-voltage
Front panel LEDs	Power on, inverter on, SPV present / SPV charging, grid present / grid charging, battery under-cut / alarm, fault
Front panel switches	Reset for system on/off, up, down, back, enter
Display type	16 x 2 alphanumeric display with backlight

Specifications are subject to change without prior notice due to constant improvement in design and technology.

— Time-of-day operation

Save more by scheduling

Charge the battery in TOD 1 when grid power is cheapest, run the home grid-free on solar and battery through TOD 2, and schedule a daily battery discharge in the TOD 3 evening peak.

