



ALL IN ONE
STORAGE SOLUTION



OPALSTORAGE

Opal Storage is an advanced Battery Energy Storage System (BESS+). Our storage system is specifically designed for customers. The unique design includes not only the battery, BMS and inverter in the cabinet but also the solar array DC switch, battery DC circuit breakers and all AC circuit breakers inbuilt.

All DC and AC cables are prewired, which helps installers dramatically reduce solar system installation time. Thus the true Plug & Play solution is provided to our installers.

Opal Storage is an IP54 water and dust protected product. It can be easily installed for either indoor or outdoor. The idea of BESS+ is beneficial for the customer to provide a clean install site with the Opal Storage cabinet.

No additional components are required as you will primarily run your input DC cables in from the roof and output AC cables to the switchboard.

FEATURES

BACKUP FUNCTION

Up to 4kw load can be used when grid experiencing outage.

FAST INSTALLATION

Plug and Play design. Reduction of installation time dramatically.

WATER & DUST RESISTANCE

Our product is IP54 rated, which means it's water and dust resistant thus perfect for indoor and outdoor installation.

QUALITY COMPONENTS

Solax hybrid inverter and LG Chem modular batteries are used. Reposit controller is optional.

BESS + COMPARISON

Advance DC & AC circuit protected and plug & play cables pre-wired.

Battery Energy Storage System + BOS (BESS+)
Battery Energy Storage System (BESS)
Battery System (BS)

Battery	BMS	Inverter	+
✓	✓	✓	✓
✓	✓	✓	
✓	✓		



OPTIONAL MONITORING reposit

Reposit controller is fully compatible with Opal Storage and is readily accessible. Using Reposit controller, it can help store the excess solar produced during the day, so you are able to harness cheap and clean solar energy at night.

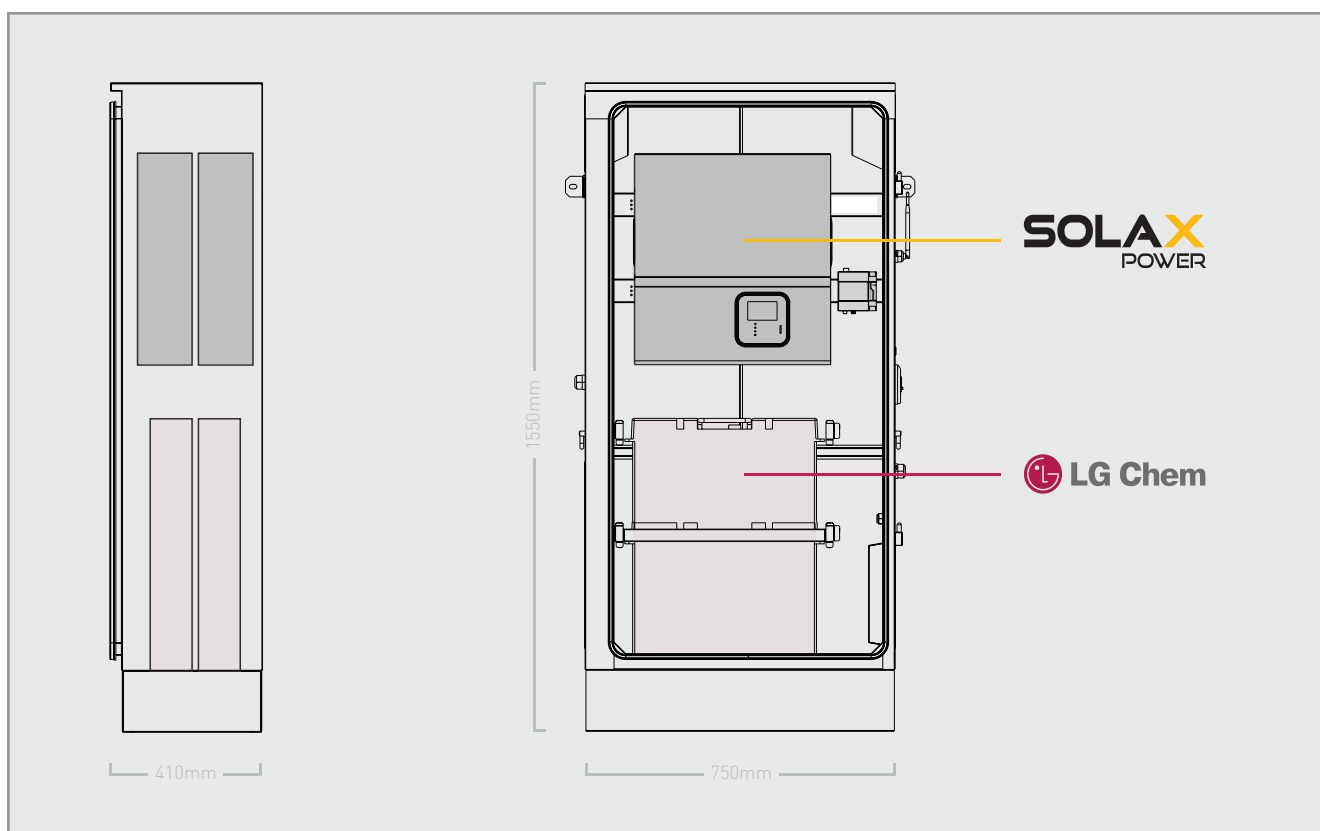
Reposit helps to sell your power back to the grid when the prices are highest to lower your power bill using GridCredits so you can be less dependent on the grid.



GENERAL DATA

Cabinet Dimensions (WxHxD) (mm)	750 x 1550 x 410
Weight (kg)	70 kg (without inverter and batteries)
Key Components	Solax Inverter & Charger, LG Chem Batteries, EPS contactor, DC&AC Circuit Protection
Installation	IP54 Outdoor, Floor-mount
Communication	Ethernet / Wifi
Monitoring Portal	Opal View / Reposit (optional)

TECHNICAL



LG Chem Rack Mount Modular Battery

Nominal Capacity (kWh) in total	13kWh (2 x 6.5kWh)
Max. Charge / Discharge Power (kW) in total	6.0kW
Round- trip Efficiency (%)	95
Operating Temperature Range (oC)	-10~45
Optimal Operating Temperature (oC)	15~30
Storage Temperature (oC)	-30~60
Humidity (%)	5~95
Altitude (m)	Below 2000

Solax SK-TL5000E / BMU5000

Operating Temperature Range (oC)	-10~50 (derating at 40)
Storage Stability Range (oC)	-20~60
Humidity (%)	0~95 (non-condensing)
Dimensions of SK-TL5000E / BMU5000 (WxHxD) (mm)	490 x 595 x 167 / 460x 595x 167
Weights of SK-TL5000E / BMU5000 (kg)	21.5 / 19

Solax SK-TL5000E

Max. Recommended DC Input Power (W)	5000
Max. DC Voltage (V)	550
MPPT Voltage Range / Nominal DC Operating Voltage (V)	125-530 / 360
Max. Input Current / Max. Short Circuit Current (A)	12 / 15 per MPP Tracker
No. of MPP Trackers / Strings per MPP Tracker	2 / 1
AC Nominal Power (W)	4600
AC Nominal Voltage Range (V)	230VAC, 50/60Hz, 180-280VAC
AC Nominal Current / Max. AC Current (A)	20 / 22.1
Displacement Power Factor	0.9 leading to 0.9 lagging

Solax BMU5000

Battery Type	Lead-Acid Battery / Lithium Ion Battery
Battery Nominal Voltage / Voltage Range (V)	48 / 40-60
Max. Charge / Discharge Power (W)	4600
Max. Charge / Discharge Current (A)	100
EPS Rated Power (VA)	4000
EPS Rated Voltage (V), Frequency (Hz), Current (A)	230, 50/60, 17
EPS Peak Power (VA)	1.5 x P-Rated, 10s
Switch Time (s)	Less than 5



Designed by Opal Solar in Sydney, Australia

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