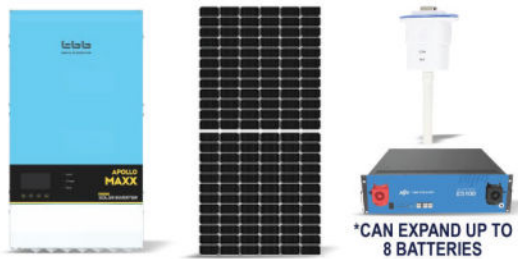


3kVA-S

6kVA-S

8kVA-S

12kVA-S



*CAN EXPAND UP TO 8 BATTERIES



TBB RiiO Sun II 3kVA-S Inverter MPPT 48V

1x TBB ES100 V2 100AH/48V
3U Rack Mount Lithium

1x TBB WiFi for RiiO Sun II

4x Seraphim 460w
Siv Series Mono Panel



TBB RiiO Sun II 6kVA-S Inverter MPPT 48V

2x TBB ES100 V2 100AH/48V
3U Rack Mount Lithium

1x TBB WiFi for RiiO Sun II

8x Seraphim 460w
Siv Series Mono Panel



TBB RiiO Sun II 8kVA-S Inverter MPPT 48V

2x TBB ES100 V2 100AH/48V
3U Rack Mount Lithium

1x TBB WiFi for RiiO Sun II

8x Seraphim 460w
Siv Series Mono Panel



2x TBB RiiO Sun II 8kVA-S Inverter MPPT 48V

4x TBB ES100 V2 100AH/48V
3U Rack Mount Lithium

1x TBB WiFi for RiiO Sun II

16x Seraphim 460w
Siv Series Mono Panel



Lithium-ion VS Lead Acid Batteries

1. Charge Cycles

A battery's lifespan is measured in charge cycles. Lead acid batteries typically offer about 300 to 500 cycles while lithium-ion batteries can cycle 3500 times or more.

2. Depth of Discharge

If you want to prolong the life of your battery, don't drain the power too much. Lead acid batteries should only be run to 50% depth of discharge to prevent damage. While lithium-ion batteries can handle deep discharges of 80% or more.

3. Efficiency

Depending on the model and condition, a lead acid battery only holds 80 to 85% of its power. Lithium-ion batteries are more efficient overall, allowing for faster charging rates and at least 95% power availability.

4. Charge Rate

Lead acid batteries are known to overheat if charged too quickly. Lithium batteries can handle higher amperage from the chargers, allowing for shorter recharge times - by comparison, a lead acid battery can take twice as long to charge back up again.

5. Energy Density

Lithium-ion batteries fit more storage capacity into less space. For example, it may take two lithium batteries to power a 5kW system, but you'll need 8 lead acid batteries to do the same job.

VERDICT

Lead acid batteries may seem like the more affordable option, but Lithium-ion batteries offer greater value and savings over the long term.

Inverters

An essential piece of kit, inverters convert solar DC power into AC power for use in the home.

There are 3 main types to choose from:

Off-Grid Inverters

Pros: These are still the most affordable and easy-to-install

Cons: They only have one function - converting DC to AC power, so you'll need to add the other elements, like an MPPT and Charge Controller, to complete your solution. They're also noisy and have a relatively short lifespan (about 10 years)

Grid-Tied Inverters

Pros: Scalable and affordable (no batteries required). Perfect for homes or businesses that operate mainly during the day

Cons: Slightly trickier to install as they need to be tied to an electricity grid. If the grid goes down, so does your connection. There's also no option for backup battery power

Hybrid Inverters

Pros: Flexible, scalable and high-tech. Has the ability to blend AC and DC power, is easy-to-install with a longer lifespan (15 years plus) - it's no wonder this version is everyone's must-have

Cons: It comes at a much higher price.

LET'S TALK INVERTER SIZE

The more power you use, the bigger your inverter will need to be

Step 1:

Average monthly electricity bill divided by Price per kW = Monthly usage in kW

Step 2:

Monthly usage in KW divided by Days of the Month (ie 30) = Daily usage in kW

Step 3:

Daily usage in KW divided by peak solar production hours (usually 5.5 hours per day) = Your kW needs / the size of your inverter