

Energy storage system comparison 2021

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| System manufacturer | Model | AC - Phases | | Recommended system size | DC - coupling | AC - coupling | Emergency power* | Backup power** | Recharging solar*** | SG ready (if need be check accessories) | Battery | Cellular chemistry | Recommended capacity (gross) | Expandable | Max. charging / discharging capacity | System advantages |
|---------------------|------------------------------|-------------|---|-------------------------|---------------|---------------|------------------|----------------|---------------------|---|--|------------------------------------|------------------------------|----------------|--------------------------------------|---|
| | | 1 | 3 | | | | | | | | | | | | | |
| SMA | Sunny Island | ✓ | ✓ | 3.0 – 30.0 kWp | - | ✓ | - | ✓ | ✓ | ✓ | LG Chem LG Chem RESU 48V | Nickel manganese cobalt | 6.5 – 26.2 kWh | ✓ | 3.3 – 18.0 kW | Universally suitable for retrofitting, highly flexible, SMA web portal, backup power by using the Enwitec switchover box (check on SMA compatibility list) |
| | | ✓ | ✓ | 3.0 – 30.0 kWp | - | ✓ | - | ✓ | ✓ | ✓ | BYD BYD Battery-Box Premium LVS + LVL | Lithium iron phosphate | 4.0 – 24.0 kWh | ✓ | 3.3 – 18.0 kW | |
| E3/DC | S10 MINI | ✓ | - | 4.0 – 7.5 kWp | - | - | ✓ | - | - | - | E3/DC E3/DC battery modules | Lithium-ion | 3.3 / 6.5 kWh | - | 1.5 kW | INFINITY retrofitting option within 5 years of commissioning |
| | S10 E / S10 E INFINITY | - | ✓ | 5.0 – 15.0 kWp | ✓ | - | - | ✓ | ✓ | 6.5 – 36.0 kWh | | | ✓ | 4.5 kW | | |
| | S10 E PRO / S10 PRO Infinity | - | ✓ | 5.0 – 15.0 kWp | - | - | ✓ | - | - | 13.0 – 39.0 kWh | | | ✓ | 9.0 kW | | |
| | Quattroporte UNO/ DUE/MAX | ✓ | ✓ | 5.0 – 60.0 kWp | - | - | ✓ | - | - | 6.5 – 78.0 kWh | | | ✓ | 1.5 – 13.5 kW | Optional 1-, 2- or 3-phase | |
| VARTA | pulse | ✓ | - | 3.0 – 7.0 kWp | - | - | - | - | - | ✓ | VARTA VARTA battery | Nickel manganese cobalt | 3.3 / 6.5 kWh | - | 1.6 / 2.3 kW | Easy and very fast installation. With the use of VARTA Link, up to 5 systems of 65 kWh can be combined (with the VARTA pulse neo as the master, even 6 systems can be combined). Yield optimisation possible with weather and load forecast |
| | pulse neo | - | ✓ | 3.0 – 7.0 kWp | - | ✓ | - | - | - | ✓ | | | 3.3 / 6.5 kWh | ✓ | 1.6 / 2.3 kW | |
| | element | - | ✓ | 5.0 – 12.0 kWp | - | - | - | - | - | ✓ | | | 6.5 – 13.0 kWh | ✓ | 1.8 – 3.7 kW | |
| SolarEdge | StorEdge 3-phase inverter | - | ✓ | 4.0 – 12.0 kWp | ✓ | ✓ | - | - | - | ✓ | LG Chem LG Chem RESU 48V | Nickel manganese cobalt | 6.5 – 13.1 kWh | - | 5.0 kW | Hybrid system, module optimisation, simple connection with all SolarEdge systems |
| | | - | ✓ | 4.0 – 12.0 kWp | ✓ | ✓ | - | - | - | ✓ | BYD BYD Battery-Box Premium LVS | Lithium iron phosphate | 4.0 – 24.0 kWh | ✓ | | |
| GoodWe | ES 3.6 / 5.0 | ✓ | - | 3.0 – 6.0 kWp | ✓ | - | ✓ | - | ✓ | - | LG Chem LG Chem RESU 48V | Nickel manganese cobalt | 6.5 – 26.2 kWh | ✓ | 3.6 kW / 5.0 kW | Compact hybrid system for lead and lithium-ion batteries, connection with UPS function |
| | | - | ✓ | 3.0 – 6.0 kWp | ✓ | - | ✓ | - | ✓ | - | ✓ | BYD BYD Battery-Box Premium LVS | Lithium iron phosphate | 4.0 – 24.0 kWh | | |
| Tesla | Powerwall | ✓ | - | 6.0 – 15.0 kWp | - | ✓ | - | - | - | - | Tesla Tesla | Lithium-ion | 13.5 kWh | ✓ | 4.6 kW | Parallel connection of up to 10 devices, high-quality compact system, quick installation and commissioning; no three-phase A.C. current possible |
| | 3x Powerwall | - | ✓ | 15.0 – 30.0 kWp | - | ✓ | - | - | - | - | | | 40.5 kWh | ✓ | 13.8 kW | |

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| | | 1 | 3 | | | | | | | | | | | | | |
| SMA | Sunny Boy Storage 2.5 | ✓ | - | 3.0 – 30.0 kWp | - | - | - | - | - | - | LG Chem LG Chem RESU 10H | Nickel manganese cobalt | 9.8 kWh | - | 2.5 kW | Universally suitable for retrofitting, integrated emergency socket, highly flexible, SMA web portal, backup power by using the Enwitec switchover box (check on SMA compatibility list) |
| | | ✓ | - | 3.0 – 30.0 kWp | - | ✓ | - | - | - | - | BYD BYD Battery-Box Premium HVS | Lithium iron phosphate | 5.1 – 10.2 kWh | ✓ | | |
| | Sunny Boy Storage 3.7 / 5.0 / 6.0 | ✓ | - | 3.0 – 30.0 kWp | - | - | ✓ | ✓ | ✓ | - | LG Chem LG Chem RESU H | Nickel manganese cobalt | 9.8 – 3 x 9.8 kWh | - | 3.7 – 6.0 kW | |
| | | - | ✓ | 3.0 – 30.0 kWp | - | ✓ | ✓ | ✓ | ✓ | - | LG Chem LG Chem RESU 10M (nur für SBS 3.7) | Nickel manganese cobalt | 9.8 kWh | ✓ | | |
| SolarEdge | StorEdge 1-phase inverter | ✓ | - | 2.0 – 20.0 kWp | ✓ | ✓ | - | - | - | ✓ | LG Chem LG Chem RESU H | Nickel manganese cobalt | 7.0 / 9.8 kWh | - | 3.5 / 5.0 kW | Hybrid system, module optimisation, simple connection to all SolarEdge systems |
| | | ✓ | - | 2.0 – 20.0 kWp | ✓ | ✓ | - | - | - | ✓ | BMZ BMZ Hyperion | Nickel cobalt aluminium | Up to 18.00 kWh | ✓ | | |
| Fronius | Symo Hybrid | - | ✓ | 3.0 – 8.0 kWp | - | - | - | (not with LG) | (not with LG) | - | LG Chem LG Chem RESU H | Nickel manganese cobalt | 7.0 / 9.8 kWh | - | 3.5 / 5.0 kW | Compact, high performance hybrid system in 1- and 3- phase, back-up power using the Enwitec switchover box |
| | Primo Gen24 plus | ✓ | - | 3.0 – 9.0 kWp | ✓ | - | ✓ | ✓ | ✓ | - | BYD BYD Battery-Box Premium HVM | Lithium iron phosphate | 8.3 – 22.1 kWh | ✓ | 3.9 – 5.3 kW | |
| | Symo Gen24 plus | - | ✓ | 6.0 – 15.0 kWp | - | - | ✓ | ✓ | ✓ | - | BYD BYD Battery-Box Premium HVS / HVM | Lithium iron phosphate | 5.1 – 19.3 kWh | ✓ | 3.1 – 6.3 kW | |
| LG Electronics | LG ESS Home 8 | - | ✓ | 7.0 – 10.0 kWp | ✓ | - | - | ✓ | ✓ | - | LG HB 7H | Nickel manganese cobalt | 7.0 – 16.8 kWh | ✓ | 3.5 / 7.0 kW | Complete system, 3 MPP, back-up power using the Enwitec switchover box |
| | LG ESS Home 10 | - | ✓ | 10.0 – 13.5 kWp | ✓ | - | - | ✓ | ✓ | - | LG HB 10H | Nickel manganese cobalt | 9.8 – 19.6 kWh | ✓ | 5.0 / 7.0 kW | |
| GoodWe | GW 5 / 8 / 10 KW-ET | - | ✓ | 4.0 – 12.0 kWp | ✓ | (not with GW5KW-ET) | ✓ | ✓ | ✓ | - | BYD BYD Battery-Box Premium HVS / HVM | Lithium iron phosphate | 5.1 – 22.1 kWh | ✓ | 5.0 – 10.0 kW | Parallel connection of up to 10 hybrid devices is possible using the combinerbox |
| KOSTAL | Plenticore plus | - | ✓ | 4.0 – 11.5 kWp | ✓ | - | - | - | - | ✓ | BMZ BMZ Hyperion | Nickel cobalt aluminium | bis 18.0 kWh | ✓ | 2.7 – 5.3 kW | Multi-flexible, retrofitting of battery possible any time, 3-phase, simple installation, bidirectional MPP-tracker |
| | Plenticore BI 5.5 / 10 | - | ✓ | 4.0 – 11.5 kWp | - | ✓ | - | - | - | ✓ | BYD BYD Battery-Box Premium HVS / HVM | Lithium iron phosphate | 5.1 – 22.1 kWh | ✓ | 5.1 – 10.0 kW | |
| | Piko MP plus | ✓ | - | 1.5 – 5.0 kWp | ✓ | - | - | - | - | ✓ | | | | ✓ | 1.5 – 5.0 kW | |
| RCT Power | RCT Power Storage AC | - | ✓ | 4.0 – 12.0 kWp | - | ✓ | - | - | - | ✓ | RCT RCT Power Battery | Lithium iron phosphate | 3.9 – 11.5 kWh | ✓ | 3.9 – 11.5 kW | Battery modules modularly extensible, for RCT DC Storage 8.0 and 10.0 2 battery inputs |
| | RCT Power Storage DC | - | ✓ | 4.0 – 12.0 kWp | ✓ | - | - | ✓ | ✓ | ✓ | | | | ✓ | | |
| Sungrow | SH5.0RT - SH10RT | - | ✓ | 4.0 – 12.0 kWp | ✓ | - | ✓ | ✓ | ✓ | ✓ | LG Chem LG Chem RESU | Nickel manganese cobalt | 7.0 – 9.8 kWh | - | 3.5 / 5.0 kW | Parallel connection of two devices possible |
| | | - | ✓ | 4.0 – 12.0 kWp | ✓ | - | ✓ | ✓ | ✓ | ✓ | BYD BYD Battery-Box Premium HVS / HVM | Lithium iron phosphate | 5.1 – 22.1 kWh | ✓ | 6.6 – 10.6 kW | |

* Emergency power: The system has separate connection terminals for power supply during power failure

** Back-up power: The system switches automatically during power failure to supply the household at 1-/3- phase

*** Recharging solar: The system can be charged while on emergency or back-up power