

Which 16 kWh home battery is best?

Low-voltage (51.2 V) LiFePO4 batteries compared on cell quality, performance, warranty and after-sales service

Deye · Solis IntelliHome · Dyness · GoodWe · LVTOPSUN G4 · Sungrow

1 The short answer

BEST CELL QUALITY & LIFE



GoodWe Lynx A G4

10,000 cycles · IP65

- Highest rated cycle life
- 200 A discharge
- Best with GoodWe inverters

BEST ALL-WEATHER & WARRANTY



Solis IntelliHome

IP66 · 100% usable · 10 yrs

- Toughest enclosure (IP66, C5M anti-corrosion)
- Self-heating, full 16 kWh usable
- Best with Solis inverters

BEST ALL-ROUNDER



Dyness PowerBrick Plus

8,000 cycles · IP65 · 10 yrs

- Works with Deye, Solis and GoodWe
- 200 A charge and discharge
- Good choice for Deye systems

2 Overall scorecard

Battery	Cell quality	Performance	Warranty	After-sales service	Overall
GoodWe Lynx A G4	★★★★★	★★★★★	★★★★★	★★★★★	4.5
Solis IntelliHome 16	★★★★★	★★★★★	★★★★★	★★★★★	4.4
Dyness PowerBrick Plus	★★★★★	★★★★★	★★★★★	★★★★★	4.4
Deye SE-F16	★★★★★	★★★★★	★★★★★	★★★★★	3.9
LVTOPSUN G4	★★★★★	★★★★★	★★★★★	★★★★★	2.5

Solar ESS assessment, 5 = best. Based on makers' published datasheets and our field experience in Thailand. Sungrow is not scored: its home batteries are mainly high-voltage and do not suit 51.2 V systems.

3 Cell quality & performance

Rated cycle life (higher = longer life)

GoodWe Lynx A G4	10,000
Dyness PowerBrick Plus	8,000 @ 95% DoD
LVTOPSUN G4	up to 8,000 (claimed)
Solis IntelliHome 16	≥ 6,000
Deye SE-F16	> 6,000 (to 70%)

Test conditions differ: Deye is rated to 70% end-of-life; Dyness at 95% DoD. *LVTOPSUN figure is a seller claim.

Usable energy per battery (kWh)

Solis IntelliHome 16	16.0 (100% DoD)
Dyness PowerBrick Plus	15.3
GoodWe Lynx A G4	≥ 14.9
Deye SE-F16	≈ 14.4 (90% DoD)
LVTOPSUN G4	not published

More usable energy means more night-time runtime from the same nominal 16 kWh.

4 Technical specifications

Item	 Deye SE-F16	 Solis IntelliHome 16	 Dyness PowerBrick Plus	 GoodWe Lynx A G4	 LVTOPSUN G4
Chemistry / cell	LFP, 314 Ah	LFP, 314 Ah	LFP, 314 Ah	LFP, 314 Ah	LFP (cell maker n/p)
Nominal energy	16 kWh	16 kWh	16.07 kWh	16.1 kWh	16.07 kWh
Usable energy	≈14.4 kWh (90%)	16 kWh (100%)	15.27 kWh	≥14.9 kWh	n/p
Cycle life	>6,000 (70% EoL)	≥6,000	8,000 @95% DoD	10,000	up to 8,000*
Max charge / discharge	160 A / 230 A	157 A / 157 A	200 A / 200 A	157 A / 200 A	n/p
Enclosure rating	IP21 (indoor)	IP66 + C5M	IP65	IP65	IP65
Operating temp.	-20 to 55 °C	-20 to 55 °C, self-heating	-20 to 55 °C	-20 to 55 °C	n/p
Max in parallel	32	8 (128 kWh)	50	30	63*
Warranty	5 yrs, ext. to 10	10 yrs	10 yrs	10 yrs†	n/p

n/p = not published by the maker. * Seller listing, not a maker datasheet. † 10 years is GoodWe's standard battery warranty; confirm terms for Thailand. All use 51.2 V lithium iron phosphate (LFP) prismatic cells; makers do not publish the cell brand.

Note on Deye SE-F16: its enclosure is IP21, so it must be installed indoors or in a sheltered battery room. Standard warranty is 5 years; register the battery to extend it to 10 years.

5 Warranty & after-sales service

Battery	Service	What to expect in Thailand
 Deye SE-F16	★★★★★	Very large installed base in Thailand; spares and technicians easy to find. Register for the extended 10-year warranty.
 Solis IntelliHome 16	★★★★★	Brand-backed service through official distribution; one warranty covering inverter + battery on Solis systems.
 Dyness PowerBrick Plus	★★★★★	Well-known battery specialist; service via distributors — claims can take longer.
 GoodWe Lynx A G4	★★★★★	Established brand with structured warranty and remote monitoring support.
 LVTOPSUN G4	★★★☆☆	Warranty terms and Thai service channel not published — highest after-sales risk.

6 Inverter compatibility

Battery	Deye hybrid	Solis hybrid	GoodWe hybrid
 Deye SE-F16	✓ Native	?	✗
 Solis IntelliHome 16	✗	✓ Native	✗
 Dyness PowerBrick Plus	✓	✓	✓
 GoodWe Lynx A G4	?	?	✓ Native
 LVTOPSUN G4	?	?	?

✓ approved ? possible — check the inverter's approved battery list first ✗ not recommended

7 Our recommendation

Deye inverter → **Dyness PowerBrick Plus** for longer life, IP65 and 10-year warranty, or **Deye SE-F16** for native single-brand support (indoor install, register 10-year warranty).

Solis inverter → **Solis IntelliHome**. Toughest enclosure, 100% usable, same-brand warranty.

GoodWe inverter → **GoodWe Lynx A G4**. Highest cycle life in this group.

Avoid LVTOPSUN G4 until the warranty, Thai service channel and inverter approval are confirmed in writing. **Sungrow** is not suitable for 51.2 V systems.

Sources: deye.com (SE-F16), solisinverters.com / SolisStorage IntelliHome datasheet, Dyness PowerBrick SC/Plus datasheets (ENF Solar), en.goodwe.com (Lynx A G4 16 kWh), sungrowpower.com, LVTOPSUN G4 seller listing. October 2026. Confirm against the current datasheet before ordering.