



Technical Component Datasheets

Choosing the right components is critical to system safety, reliability, and performance. At Phoenix Grid Solutions Ltd, we specify proven equipment and provide clear technical datasheets, so clients understand exactly what is being installed and why.

What this section includes

For every project, we supply manufacturer datasheets and our own specification summaries for the key components below.

Solar PV Modules

Key parameters we document:

- Rated power (Wp) and module efficiency
- Voltage and current values (Voc, Vmp, Isc, Imp)
- Temperature coefficients and operating range
- Mechanical loading, frame type, and warranty terms
- Compliance certifications (IEC standards)

Inverters and Hybrid Inverters

Key parameters we document:

- Continuous power rating and surge capacity
- AC output voltage and frequency
- MPPT ranges and maximum PV input limits
- Battery compatibility and charge controller limits
- Protection features and operating modes
- Cooling method, noise levels, and IP rating

Battery Storage Systems

Key parameters we document:

- Battery chemistry and usable capacity (kWh)



- Nominal voltage, max charge and discharge rates
- Depth of discharge recommendations and cycle life
- Battery Management System protections
- Operating temperature range and enclosure rating
- Warranty terms and expansion capability

Charge Controllers

Where separate controllers are used, we document:

- Maximum PV input voltage and current
- Charging profile options and battery support
- Efficiency and thermal protection features
- Communications and monitoring compatibility

Mounting and Racking Systems

Key parameters we document:

- Roof or ground mount suitability
- Material type and corrosion resistance
- Wind loading and structural compliance
- Fasteners, rail systems, and installation method

Protection and Balance of System

We provide datasheets and specifications for:

- DC and AC isolators
- Breakers, fuses, and distribution boards
- Surge protection devices for lightning protection
- Earthing components and cable specifications
- Connectors and combiner boxes (where applicable)

How to read our datasheets



We present specifications in a simple, comparable format covering:

- Technical rating and limits
- Safety and compliance certifications
- Environmental suitability for the installation site
- Warranty coverage and expected service life

Why it matters

Proper component selection prevents underperformance, overheating, nuisance trips, premature battery wear, and avoidable failures. Our datasheet approach ensures transparency and makes future upgrades or maintenance straightforward.