

## SYSTEM PACKAGE DATA SHEET

# Package 4: Sigenenergy

## 10.20 kWp + 48.36 kWh

Integrated three-phase SigenStor package with six 8.06 kWh battery modules and a high-power LONGi bifacial array.

### Capacity mapping confirmed

Seventeen LONGi LR7-72HGD-600M modules equal 10.20 kWp. Six SigenStor BAT 8.0 modules equal 48.36 kWh, commercially rounded to 48 kWh in the supplied package image.

## PACKAGE 4



**LONGi Solar** | **SIGENERGY**

### 10.2kW SOLAR + 48kWh BATTERY

- ✓ **10.2kW Solar PV System**
- ✓ x17 LONGi N-Type Solar Panels
- ✓ 10kW Sigenenergy Hybrid Inverter
- ✓ 48kWh Sigenenergy Battery Storage
- ✓ **AI Energy Management System**
- ✓ Online Monitoring & Mobile App
- ✓ **EV Charger Ready**
- ✓ Whole Home Backup Capability\*
- ✓ **NETCC Approved Installation**



#### PERFECT FOR:

Future-ready homes with EVs, batteries and smart energy management.

**10.20 kWp**

DC solar array

**10.0 kW**

3-phase energy controller

**48.36 kWh**

Battery energy

**6**

SigenStor BAT 8.0 modules

## Package configuration

| Component                    | Selected model / quantity                                                                                |
|------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Solar modules</b>         | 17 x LONGi LR7-72HGD-600M Hi-MO 7 N-type bifacial dual-glass modules                                     |
| <b>Energy controller</b>     | 1 x SigenStor EC 10.0 TP AU, three-phase                                                                 |
| <b>Battery</b>               | 6 x SigenStor BAT 8.0 modules (8.06 kWh each)                                                            |
| <b>Monitoring / EMS</b>      | mySigen application and Sigen AI energy management functions                                             |
| <b>Backup / EV readiness</b> | SigenStor ecosystem capability; gateway and EVDC charger are separate configuration items where required |

### Capacity reconciliation

Solar: 17 x 600 W = 10,200 W (10.20 kWp). Battery: 6 x 8.06 kWh = 48.36 kWh. DC/AC ratio: 1.02. Use 48.36 kWh in technical documents and 48 kWh as rounded marketing wording.

## Design basis

The controller supports one to six battery modules and the package uses the maximum six-module stack shown in the reviewed battery datasheet. Final installation must confirm stack height, weight, base, gateway, backup topology and exact module suffix.

## 1. Solar PV array and module data

|                                        |                              |                               |                                    |
|----------------------------------------|------------------------------|-------------------------------|------------------------------------|
| <b>10.20 kWp</b><br>Array rating (STC) | <b>17</b><br>Module quantity | <b>600 W</b><br>Module rating | <b>1.02</b><br>PV / inverter ratio |
|----------------------------------------|------------------------------|-------------------------------|------------------------------------|

### LONGi LR7-72HGD-600M Hi-MO 7

N-type HPDC half-cell, bifacial dual-glass module from the 585-620 W LR7-72HGD series. Values below are the exact 600 W column in the official LONGi datasheet.

| PV module parameter            | Official datasheet value                                            |
|--------------------------------|---------------------------------------------------------------------|
| Rated maximum power (Pmax)     | 600 W at STC                                                        |
| Open-circuit voltage (Voc)     | 52.22 V                                                             |
| Voltage at maximum power (Vmp) | 44.12 V                                                             |
| Short-circuit current (Isc)    | 14.49 A                                                             |
| Current at maximum power (Imp) | 13.60 A                                                             |
| Module efficiency              | 22.2%                                                               |
| Cell / construction            | 144 half-cells; bifacial dual glass 2.0 + 2.0 mm; IP68 junction box |
| Dimensions / weight            | 2382 x 1134 x 30 mm; 33.5 kg                                        |
| Power tolerance                | 0 to +3%                                                            |
| Maximum system voltage / fuse  | 1500 V DC / 30 A                                                    |
| Operating temperature          | -40 C to +85 C                                                      |
| Temperature coefficients       | Pmax -0.280%/C; Voc -0.230%/C; Isc +0.045%/C                        |
| Static load                    | Front 5400 Pa; rear 2400 Pa                                         |
| Warranty stated in datasheet   | 12-year materials / processing; 30-year linear power output         |

### Array calculation and design notes

| Item                               | Calculation / requirement | Result               |
|------------------------------------|---------------------------|----------------------|
| Nameplate array                    | 17 modules x 600 W        | 10,200 W             |
| Approx. module area                | 17 x 2.382 m x 1.134 m    | 45.93 m2 before gaps |
| Single 17-module string Voc at STC | 17 x 52.22 V              | 887.74 V             |
| Single 17-module string Vmp at STC | 17 x 44.12 V              | 750.04 V             |

#### Final string design required

Although 17 modules in series are below the controller 1100 V absolute maximum at STC, cold-temperature Voc must be calculated. If the cold-corrected voltage exceeds the limit, the array must be split across MPPTs. Final roof layout and current limits also apply.

### Official source

[LONGi Hi-MO 7 LR7-72HGD 585-620M official datasheet](#)

## 2. Hybrid inverter / energy controller data

### Sigenergy SigenStor EC 10.0 TP AU

Three-phase SigenStor energy controller for the Australian market, combining PV inverter, battery power conversion and ecosystem controls.

| Inverter parameter                 | Official datasheet value                 |
|------------------------------------|------------------------------------------|
| Maximum recommended PV power       | 16,000 W                                 |
| Maximum DC voltage                 | 1100 V                                   |
| Nominal DC voltage / start voltage | 600 V / 180 V                            |
| MPPT operating range               | 160-1000 V                               |
| MPPTs / string inputs              | 3 MPPTs; 1 string input per MPPT         |
| Maximum input current              | 16 A per MPPT                            |
| Maximum short-circuit current      | 20 A per MPPT                            |
| Nominal AC output                  | 9999 W / 9999 VA                         |
| Rated output current               | 14.4 A                                   |
| Maximum efficiency                 | 98.3%; European 97.5%                    |
| Supported battery modules          | SigenStor BAT 5.0 / BAT 8.0; 1-6 modules |
| Peak backup power                  | 15 kW for 10 seconds                     |
| Enclosure / temperature            | IP66; -30 C to +60 C                     |
| Dimensions / weight                | 700 x 300 x 283 mm; 36 kg                |

### System integration notes

#### PV array is within published allowance

The 10.20 kWp array is below the controller 16.0 kW maximum recommended PV power.

#### Whole-home backup requires the correct gateway

Backup capability depends on the selected Sigen Energy Gateway, switchboard architecture, phase balance and load schedule. It is not established by the controller alone.

#### EV readiness is an ecosystem statement

SigenStor supports integration with Sigenergy EV charging products, but an EV charger is not included unless it appears as a separate line item in the quotation.

### Official source

[Sigenergy SigenStor EC TP AU datasheet](#)

### 3. Battery storage, backup and system notes

#### 6 x Sigenergy SigenStor BAT 8.0 modules

Six modular 8.06 kWh LFP battery units form the maximum six-module stack in the reviewed datasheet, providing 48.36 kWh total energy.

| Battery parameter                | Official datasheet value                                                        |
|----------------------------------|---------------------------------------------------------------------------------|
| Cell chemistry                   | Lithium iron phosphate (LFP)                                                    |
| Module quantity                  | 6 x SigenStor BAT 8.0                                                           |
| Energy per module                | 8.06 kWh                                                                        |
| Combined energy                  | 48.36 kWh                                                                       |
| Maximum charge / discharge power | 24 kW for the six-module configuration                                          |
| Depth of discharge               | 100% under datasheet test conditions                                            |
| Total stack weight               | Approximately 467 kg                                                            |
| Overall dimensions with base     | 850 mm wide x 260 mm deep x 1990 mm high                                        |
| Module architecture              | Stackable high-voltage battery modules; 1-6 modules supported by the controller |
| System integration               | SigenStor controller / gateway ecosystem and mySigen monitoring                 |

#### Tall and heavy stack

The six-module arrangement is approximately 1.99 m high and 467 kg. Confirm wall / equipment clearances, slab capacity, access, stability, impact protection and local placement restrictions.

#### Capacity wording

The official arithmetic is 48.36 kWh. The 48 kWh headline is a rounded marketing value.

#### Package functionality and commissioning scope

| Function                   | Included / expected                      | Site-dependent requirement                                              |
|----------------------------|------------------------------------------|-------------------------------------------------------------------------|
| Online monitoring          | Manufacturer portal / mobile app         | Internet, account setup and communications hardware                     |
| Backup power               | Supported by selected hybrid platform    | Gateway / changeover equipment and nominated compliant loads            |
| Smart energy control       | Self-use, time-of-use and export control | Correct meter / CT installation and tariff / DNSP settings              |
| Commissioning and handover | Required                                 | Test results, serials, photos, warranty registration and owner training |

#### Official sources

[Sigenergy SigenStor BAT 5.0 / 8.0 official datasheet](#)

Technical disclaimer: This consolidated sheet is a technical reference, not a construction drawing or final design approval. Final equipment selection, string configuration, protection, cable sizing, backup circuits, clearances, network approval, firmware compatibility and installation method must be confirmed after site inspection and completed in accordance with the latest manufacturer instructions, applicable Australian Standards, DNSP requirements and local regulations. Manufacturer specifications can change without notice.