ENERGY SOLUTIONS
RESIDENTIAL STORAGE BATTERY SYSTEM

MAKING SMART TOWNS, BUILDING SMART COMMUNITIES
RESIDENTIAL STORAGE BATTERY SYSTEM
The next evolution in solar energy solutions.

Panasonic’s residential storage battery system delivers a double revolution for Australia’s energy sector, bringing new flexibility to distributed energy and lower energy costs to consumers. To this rapidly expanding energy industry, Panasonic brings a strong heritage in Lithium-ion battery technology. With experience spanning more than 80 years, we are able to deliver industry-leading reliability, quality and safety.

WHY PANASONIC?

PANASONIC NUMBER 1 ELECTRONIC GREEN BRAND
Interbrand, the US brand consulting company, announced on June 24, 2014 that Panasonic ranks No. 1 in the Electronics Sector for the “Best Global Green Brands 2014”. An Excellent Green Brand is defined as achieving a good balance between Green Perception (consumers’ image of an eco-brand) and Green Performance (a company’s environmental management practices). Panasonic’s Green Performance was evaluated as being especially high, with excellent marks going to “Products and Services,” “Governance,” and “Transportation and Logistics.”

DELIVERING VALUE TO RETAILERS
Panasonic’s residential storage battery system allows retailers to reduce demand during peak times and provide savings to the consumer. In supplying the storage battery system retailers can better manage the time of use during peak periods and offer longer term contracts and savings to the consumer.

DELIVERING VALUE TO DISTRIBUTORS
For energy distributors, demand response power discharge supports grid stability through peak cutting. Panasonic’s storage battery system offers distributors cost savings on capital investment for network upgrades, including transformers.

DELIVERING VALUE TO CONSUMERS AND SMALL BUSINESS
Australian consumers and small business want to invest in sustainable energy sources but they also depend on energy being available on demand. Panasonic’s storage battery system can shift clean solar energy for use during the evening peak period, reducing overall energy costs.

DELIVERING UNINTERRUPTED CLEAN ENERGY
By storing solar energy in the residential storage battery system, clean energy can be used around the clock to reduce consumer’s electricity bill and support residential customers by supplying critical electricity backup needs during blackouts.

INTRODUCING FUJISAWA, SUSTAINABLE SMART TOWN. A JOINT VENTURE WITH PANASONIC.
PANASONIC’S RESIDENTIAL STORAGE BATTERY SYSTEM

At the heart of our innovative residential storage battery system is a compact Lithium-ion storage battery designed to be installed with existing residential photovoltaic (PV) systems. The standalone storage battery allows day-time excess PV power to maximise the self consumption of PV generated electricity. The unit also features a backup function to provide AC power during a blackout situation. When combined with the Network Adapter and DR-EMS Platform Software, this system also offers distributors and retailers the opportunity to reduce peak load.

**LJ-SK84A Li-ion Storage Battery System**

**MAJOR FEATURES**
1) Lithium-ion battery technology
2) 8 kWh usable capacity and 2kW output
3) Maximises self consumption
4) Programmed charge/discharge
5) Remote control charge/discharge
6) Emergency backup feature

**LJ-NA02 Network Adapter**

**MAJOR FEATURES**
1) Connects DR-EMS Platform Software server & Li-ion storage battery system
2) Monitoring and controlling commands
3) Secure network communications

**DR-EMS Platform Software**

**DR-EMS Platform Software Structure**

**MAJOR FEATURES**
1) Demand Response functions
2) Monitoring of battery status
3) Time of use and direct load control*
4) Reporting functions
5) Data storage functions
6) Application program interface

*Controls storage battery only
MAXIMISE SELF-CONSUMPTION MODE
The Lithium-ion storage battery system works in harmony with PV generation. By storing excess electricity in the storage battery during the day, clean energy can be used around the clock, even when the sun goes down. This allows not only for maximum utilisation of clean energy but also for a reduction of the consumers electricity bill.

PROGRAMMED CHARGE/DISCHARGE TIME MODE
The consumer can set the charge / discharge time on the lithium-ion storage battery system directly. The battery will be charged or discharged only during the designated time. At other times it will not be charged or discharged. From the storage battery system there is no excess electricity to the grid.

BACK UP MODE
When a black out happens, the Lithium-ion storage battery system can provide the charged electricity to some particular house loads through the specified plug. The minimum remaining battery capacity can be set.
**CONSUMER AND SMALL BUSINESS BENEFIT**

Those who are unsatisfied with low FIT tariff rates can derive benefits from Panasonic’s residential storage battery system.

**UTILITY BENEFIT**

Panasonic’s residential storage battery system is good news for energy distributors and retailers, reducing the grid infrastructure expense, better managing the time of use during peak periods and offering longer term contracts and savings to the consumer.

**THE SOLUTION**

**CLEAN ENERGY ON DEMAND**

Panasonic’s residential energy storage technology represents a new frontier in energy usage. We’re changing the equation to develop an efficient and environmentally responsible energy source that meets the demands of consumers, small business and utilities alike.
**TECHNICAL SPECIFICATIONS**

### LJ-SK84A Li-ion Storage Battery System

**STAND ALONE MAJOR FEATURES**

1. Maximize self-consumption
2. Programmed charge/discharge
3. Back-up

**REMOTE MAJOR FEATURES**

1. Charge/Discharge remote control

**DIMENSIONS**

- W: 966mm x H: 1380mm x D: 279mm
- Weight: 159 kg
- Colour: Ivory

**CONDITIONS OF INSTALLATION**

- Outdoor Installation: IP54
- Space required for Installation: Front: 800mm Left: 50mm Right: 200mm Back: 50mm Top: 200mm

- Do Not Install: Where Salt damage may occur or near corrosive gases etc.

**Battery Technology**

- Lithium-ion

**Usable Capacity**

- 8 kWh

**Battery Input**

- Nominal Input Voltage: 150.0 V (110V~165V)

**AC Output (Grid Tied)**

- Connection Type: Single phase 2 wire
- Rated AC Voltage: 230V
- Rated Frequency: 50 Hz
- Rated Power (Input/Output): -2.0kW / 2.0kW
- Rated Current (Input/Output): -8.7[A rms] / 8.7[A rms]

**Back-up**

- Connection Type: Single phase 2 wire (in-phase ground)
- Rated AC Voltage: 230V
- Rated Frequency: 50 Hz
- Maximum Output: 1.0kVA

**Environmental**

- Ambient Temp. Sensor in battery module 0–40°C *Discharge -10–40°C
- Ambient Humidity 0~90[%Rh] *Non condensing
- Maximum Altitude 1000[m]

**Standard**

- AS/NZS 3100 (2009)
- Grid AS/NZS 4777-1/-2/-3- (2005)
- EMC IEC61000-3, IEC61000-6

**User Interface**

- 7seg 5 Digit LED with 4 buttons

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### LJ-NA02 Network Adapter

**MAJOR FEATURES**

1. Communicate between DR Server and Li-ion Storage battery system: monitoring and controlling commands
2. Communicate safely

**DIMENSIONS**

- W: 150mm x H: 325mm x D: 111mm
- Weight: 1.4 kg
- Colour: White

**CONDITIONS OF INSTALLATION**

- Indoor installation: Wall mount

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### DR-EMS Platform Software

**MAJOR FEATURES**

1. Li-ion Storage Battery System managing functions
2. Demand Response functions
3. Reporting functions
4. Data storage functions

**DR-EMS Platform Software Structure**

- DR Server (which provides a Demand Response Program)
- DR-EMS Platform Software
  - Power Entry Characteristic
  - Network Interface (LAN Port)
  - Serial Interface (RS-485)
- Li-ion Storage Battery System
- Demand Response Functions
- Data Management Functions
- Control & Monitor Functions

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Design and Specifications are subject to change without notice. Publication date: June 2015