



INNOVATION IN POWER & STORAGE TECHNOLOGY

Redx Energy RX-5000AC

AC Coupled Battery

Redx Energy (Redx)

is an Australian owned and operated company, a leader in innovative inverter power and storage technology.

With a passion for innovation, Redx holds over 30 technology patents that are groundbreaking in the inverter space.

The Australian Office manages software engineering, new product design, technology support and after sales service. With local expertise, Redx can respond quickly to customer enquires and also has the agility to provide customised solutions.



5000W
discharge



On-Off Grid
functions



VPP
ready



Single stage
inverter



Quick
installation



Redx Energy RX-5000AC

The RX-5000AC is an all-in-one Energy Storage System (ESS) designed to achieve the highest efficiency using Redx patented FWS inverter technologies. This AC coupled battery best fits a location where an existing solar system is installed.

INPUTS

The RX-5000AC is wired to the mains switchboard, it supports all PV inverter brands with a dedicated PV CT and includes an EPS backup output for blackout situations. This ESS is an AC-coupled battery, it best fits a location with an existing solar system installed.

SOFTWARE & MONITORING

Through the monitoring platform Solar Installers can manage their fleet of installations and proactively respond to customers. The cloud-based software platform Redx™ Power and App enables customers to track generation, consumption and storage, with the ability to trade power.

3 PHASE SYNCHRONISATION (OPTIONAL)

The RX-5000AC offers a distinctive capability called 3 Phase Synchronization through optional firmware and control wiring. This allows for three RX5000AC units installed on each phase to function together as a unified 3-phase power source. By enabling synchronization for the battery array, one unit is designated as the master to calibrate the phase positions of the other two slave units.

PARALLEL SUPPORT (OPTIONAL)

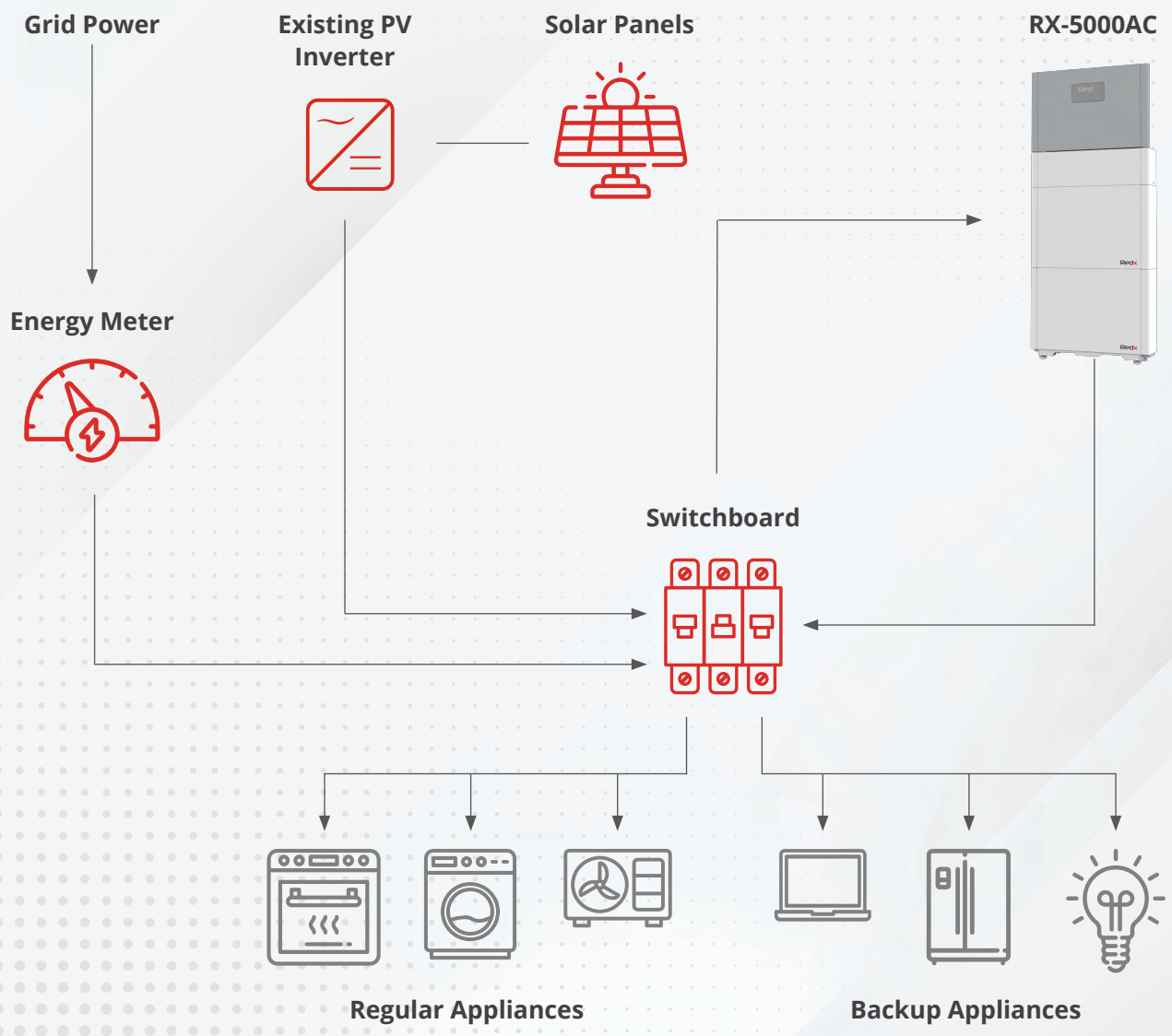
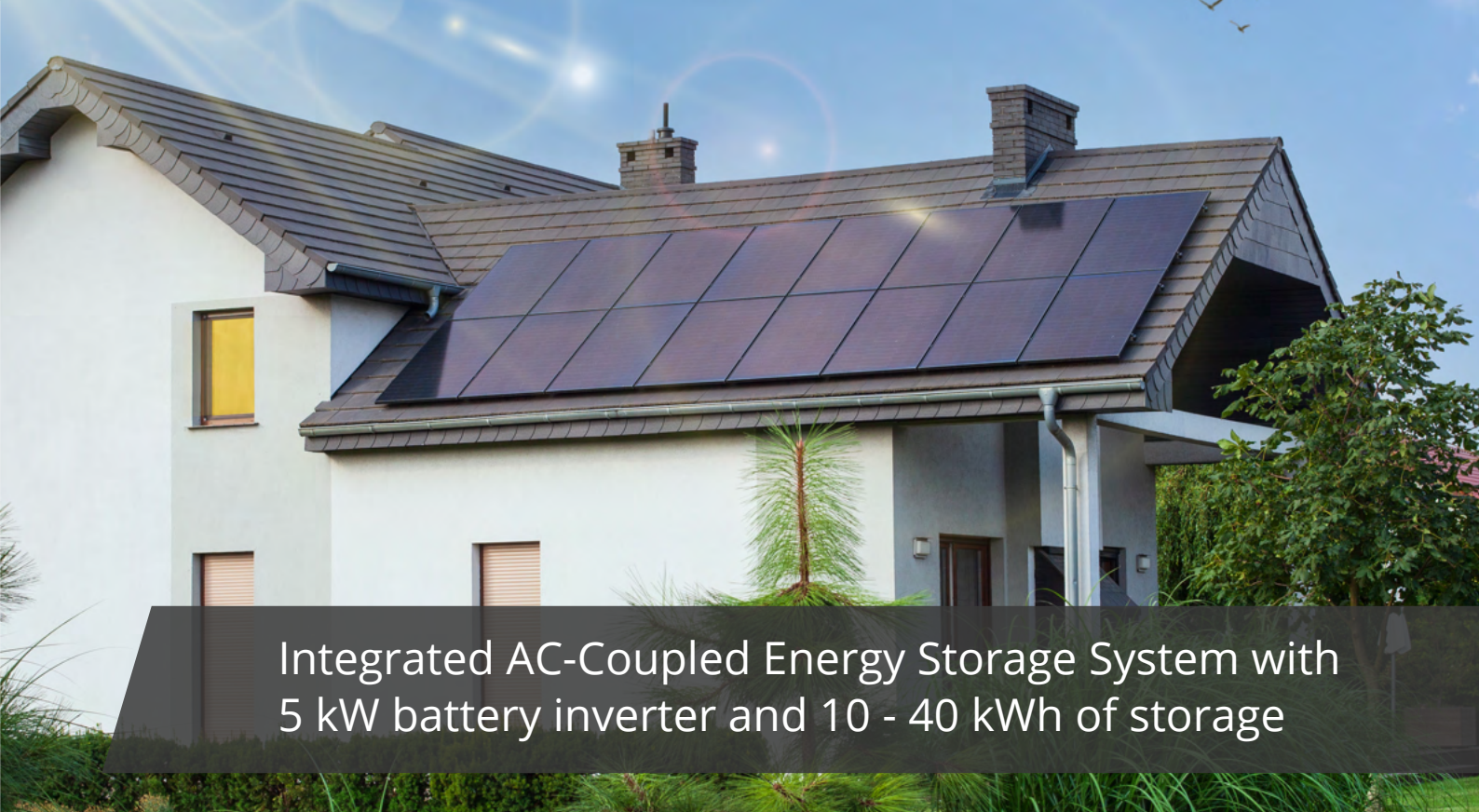
Parallel support is an optional feature that enables more than one RX-5000AC unit to work together seamlessly to provide dependable energy storage. When configured in parallel, each battery unit is connected to the system in a manner that guarantees an even distribution of the load across all batteries.

TRUE OFF-GRID FUNCTION

The inverter of the RX5000AC unit has the true off-grid function built-in, enabling it to operate independently during a grid blackout situation. So the battery unit can function as a self-contained mini-power plant during blackout events and it provides full isolation from the grid.

VPP & TRADING

Customers can keep track of their generation and savings with the ability to trade power. With VPP-ready hardware and software, the RX-5000AC provides the ultimate next generation with cloud-based real time control, trading and monitoring.



Redx Energy RX-5000AC



Integrated Energy Storage System 5,000 Watt battery inverter with 10 - 40 kWh of storage

INVERTER

Grid Inputs	
AC Input Voltage	175 V - 280 V
AC Input Nominal line Frequency	50Hz / 60Hz +/- 10%
Max Input Power	9.2kW
Max input current (charge mode 0.3C)	40A
Total Harmonic Distortion (THD)	< 5%
Load regulation	< 3%
Power Factor Nominal Range	0.8 leading to 0.8 lagging
Switching time (on-off grid)	<50ms
AC Outputs	
AC Output Voltage / Frequency	230V / 50Hz +/- 0.10Hz
Nominal Output Power - Continuous	5,000W
Maximum Output Power - 10 seconds	5,500W
Maximum Output Power - Battery only	5,500W
Max efficiency - battery to AC output	96.00%
Max output current	25A
Nominal output current	22A
Nominal output voltage (Off Grid)	230V (220/240 settable)
Frequency (Off Grid)	50Hz / 60Hz +/-0.01Hz

BATTERY

Capacity	10/15/20/25/30/35/40 kWh
Depth of discharge (DOD)	90%
Battery life	6000 Cycles ¹
Min/Max Voltage	42V / 58V
Max discharge current - 10 seconds	115 A
Max Charge Power	100 A
Battery Chemistry	LiFePO4
Round Trip efficiency	96%

¹ Manufacturer specified test conditions.

Product specifications are subject to change without prior notice.

COMMUNICATION

RS485_A&CAN	BMS
RS486_B	Wi-Fi/4G
RS485_C	Master / Turbine / EV
RS485_D	Parallel / Reserved
Current Sensors	External CT
Dry Contact 1	External DPDT Switch
Dry Contact 2	Generator
Digital Input	Turn on / Turn off (5v, 0.1A)
DRM0	DRM0

GENERAL

Protection Functions	Full Protection Functions
Current sensors	External
Display / Indicators	LED Indicators
External communication port	RS485
VPP-ready/remote control	Yes
Embedded software package (optional)	VPP & Peak Shaving
Size W*H*T	620mm x 400mm x 162mm
Weight	22.5kg

ENVIRONMENTAL / OPERATIONAL RANGE

IP rating	IP55
Operating temperature range	-10°C~ 50°C
Cooling	Convection
Relative Humidity	10-100%

CERTIFICATION, SAFETY, EMC & WARRANTY

Grid connection standard	AS4777.2
Safety & EMC	EN 61000-6-1, EN 61000-6-2, EN61000-6-3, EN61000-6-4, IEC 62109-1; IEC 62109-2
Warranty	10 years



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