



# PowerCore

## Defender - GRD120

120 - 261 kWh (scales to 1.2 MW / 2.6 MWh)



### The Grid-Connected Battery System.

#### Your defense against high energy bills.

Designed for demanding commercial and industrial use, this fully integrated outdoor Battery Energy Storage System (BESS) reduces energy costs and maximises efficiency.

Datasheet  
August 2025

## Product Features

### Commercial & Industrial Sites

Optimise solar usage, reduce peak demand charges, and integrate with virtual power plants to reduce your energy bills.

### Integrated Energy Management

This system and battery provide real time optimisation of energy use by controlling and storing energy across multiple sources, reducing costs, improving reliability, and enabling participation in virtual power plants.

### PCS & Full BESS Certifications

Certified to Australian standards, the AS4777.2 PCS ensures safe grid connection, while the full BESS is certified to IEC62477 to ensure safety compliance of the entire system.

### Liquid Cooled LFP with Fire suppression

Certified to AS IEC 62619:2022, delivers better performance, safety, and lifespan through advanced thermal management.

#### Safe

- Real-time detection and aerosol suppression
- Safe LFP battery technology
- Emergency stop button for on-site safety compliance
- Dual-zone liquid cooling for battery and PCS

#### Smart

- Integrated EMS with cloud-based monitoring
- Supports VPP integration via MODBUS or API
- Advanced control functions: harmonic filtering, reactive power compensation, and 3-phase imbalance management

#### Strong

- Backed by a 5 or 10 year warranty (under standard use)
- Engineered for long-term reliability and performance
- Rugged IP55-rated outdoor cabinet

#### Simple Install

- Pre-configured, all-in-one design
- Single connection point to your electrical infrastructure Fast installation and easy site transport
- Fast installation and easy site transport



Australia's most flexible & reliable energy control system.

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# TECHNICAL PARAMETERS

	ITEM	SPECIFICATIONS
AC PARAMETERS	Rated Grid Voltage	230/400 V, 3P+N+PE
	Rated Grid Frequency	50/60 Hz
	<b>Rated Output Power</b>	<b>120 kW</b>
	Max. Output Current	174 A
	Power Factor ( cos )	0.8 lead - 0.8 lag
SYSTEM PARAMETERS	System Efficiency	89%
	Parallel number of cabinets	Parallel number of cabinets 10
	Full Load Charge/Discharge Conversion Time	<100 ms
BATTERY PARAMETERS	Cell Type	LiFePO4
	Charging Temperature Range	0°C - +55°C
	Discharging Temperature Range	-20°C - +55°C
	Humidity	0 ~ 95% (No Condensation)
	Thermal Management	Liquid Cooling
	Battery IP Rating	IP65
	Rated Voltage	832 V
	Pack Configuration	5S1P
	Working Voltage	728-93 6V
	<b>Rated Energy</b>	<b>261 kWh</b>
	Standard Charging Current	157 A
	Max. Charging Current	195 A
	Energy Cycle efficiency	92.50%
	Depth of Discharge	90% DOD



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# TECHNICAL PARAMETERS

	ITEM	SPECIFICATIONS
PROTECTION PARAMETERS	DC UV/OV/UT/OT/OC Protection	✓
	AC UV/OV/UT/OT/OC Protection	✓
	SOC Alarm	✓
	Overload Protection	✓
	High Temperature Alarm	✓
	DC Fuse Protection	✓
	AC Lightning Protection	✓
	Automatic tripping of MCCB	✓
BESS PARAMETERS	Weight	2500 kg
	Dimension(W*H*D)	1000*2461*1440mm
	Working Temperature Range	-20°C ~ +55°C
	Humidity	0 ~ 95% (No Condensation)
	Storage Temperature Range	-20°C ~ +50°C
	Thermal Management	Chiller
	Fire Protection System	Heat Detector + Smoke Detector + Aerosol Gas detection+ Exhaust fan
	Altitude	<3000 m
	IP Rateing	IP55
	Corrosion-proofing grade	C4
	Standards	AS4777.2:2020 / IEC62619 /IEC62040 / IEC61000 UN38.3 / IEC 62477



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