

Gecko

Technical Data Sheet

RedEarth's Gecko battery energy storage systems offer Australian-made scalability, making them an excellent and enduring investment for your home.

Available in both single and three-phase configurations, Gecko provides a range of power outputs tailored to accommodate your specific needs.

Gecko is outdoor rated IP43 with a maximum capacity of 8 Troppo ULTRA batteries – 44.8 kWh capacity.



Fast Installs



One Pallet



Plug 'n' Play

Gecko Model	Single phase		Three phase	
	Gecko 5 kW 2GC1-DY5-XUL	Gecko 10 kW 2GC1-DY10-XUL	Gecko 12 kW 2GC3-DY12-XUL	Gecko 15 kW 2GC3-DY15-XUL ~ Coming soon
Battery capacity (Troppo ULTRA 5.6 kWh)	2 to 8	2 to 8	3 to 8	3 to 8
Battery capacity (kWh nominal)	11.2 – 44.8 kWh	11.2 – 44.8 kWh	16.8 – 44.8 kWh	16.8 – 44.8 kWh
Inverter model	5K-SG04LP1-AU	10K-SG02LP1-AU	12K-SG04LP3-AU	~Coming soon

Battery data

Battery type	Troppo ULTRA 5156 LFP self-managed lithium			
Battery capacity (nominal)	5.6 kWh per Troppo ULTRA battery			
Battery operating voltage range (V)	40 V - 57.6 V			
Maximum charging current (A)	120 A	220 A	240 A	280 A
Maximum discharging current (A)	120 A	220 A	240 A	280 A

PV string input data

Maximum allowable PV (W)	10,000 W	20,000 W	24,000 W	30,000 W
Maximum usable PV (W)	7,500 W	15,000 W	18,000 W	24,000 W
Maximum PV input voltage (V)	500 V	500 V	600 V	600 V
MPPT range (V)	150 to 425 V	150 to 425 V	200 to 600 V	160 to 600 V
Start-up voltage (V)	125 V	125 V	160 V	160 V
PV input current (A)	13 A + 13 A	26 A + 26 A + 26 A	26 A + 13 A	36 A + 36 A
Maximum PV Isc (A)	19.5 A + 19.5 A	44 A + 44 A + 44 A	39 A + 19.5 A	54 A + 54 A
No. of MPPT trackers	2	3	2	2
No. of strings per MPPT tracker	1 + 1	2 + 2 + 2	2 + 1	2 + 2

AC output data

Rated AC input/output active power (W)	5,000 W	9,999 W	12,000 W	15,000 W
Maximum. AC input/output apparent power (VA)	5,000 VA	9,999 VA	12,000 VA	15,000 VA
Peak power (off-grid)	2 times of rated power, 10 sec			
Rated AC input/output current (A)	21.7 A	43.5 A	17.4 A	21.8 A
Maximum AC input/output current (A)	21.7 A	43.5 A	17.4 A	21.8 A
Maximum continuous AC passthrough (A)	35 A	50 A	45 A	50 A
Generator Total Harmonic Distortion (THDi)	< 3% (of nominal power)			
Power factor	0.8 leading to 0.8 lagging			
Output frequency and voltage	50 Hz; 230 V / 400 V, 240 V / 415 V			

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Protection	Single phase		Three phase	
	Gecko 5kW 2GC1-DY5-XUL	Gecko 10kW 2GC1-DY10-XUL	Gecko 12kW 2GC3-DY12-XUL	Gecko 15kW 2GC3-DY15-XUL ~ Coming soon
Integrated	DC Reverse Polarity Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Insulation Impedance Detection, Arc Fault Circuit Interrupter (optional), DC Switch, Anti-islanding Protection (Active Frequency shift), Residual Current Detection			
Over voltage category	DC Type II / AC Type II			

Certifications and standards

Grid regulation	AS/NZS 4777.2
EMC / safety regulation	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2

General data

Operating temperature range (°C)	-40~60°C, >45°C derating			
Cooling	Smart cooling with temperature-controlled fans			
Weight of Gecko system (excl. batteries) (kg)	100 kg	120 kg	125 kg	140 kg
Size of Gecko system (mm)	1060 W x 1950 H x 450 D			
Protection degree of Gecko system	IP43			
RedEarth Warranty	10 years (AU & NZ and South Pacific region)			
Electrical connections	Grid connection, Backup circuits connection, Smart Port connection (AC coupled inverter/smart load/generator), PV array			
Monitoring	Monitoring hardware included and activated via RedEarth's app (subject to network availability).			
Energy trading	On-grid only			
EV charging	Yes			

* The Gecko system is designed to only use the RedEarth Troppo ULTRA -5156 lithium-ion battery (LFP).

** The Nominal Energy Capacity depends on the number of Troppo ULTRA-5156 batteries installed in the Gecko system. The model numbers reflect the total battery capacity installed in the system.