

i-G3N

INNOVATION GENERATION



X-Range

Spec Sheet

Premium, South African-made Lithium Iron Phosphate batteries



LEVEL 2 BBBEE CONTRIBUTOR

Futuristic and Advanced.

The X-Range is designed to support a stackable layout without compromising floor space, and at the same time offers a raised height location to protect the battery from possible flood damage.

The battery has a control box which houses all the control electronics and is differentiated as the white layer on the unit. The unit feature and external state of charge (SOC) and a more in-depth diagnostics is available via CAN Bus as well Bluetooth.

Ease of installation being the key factor for large batteries. Each secondary unit weighs 200kg, significantly improving the ease of installation for large X-range batteries.

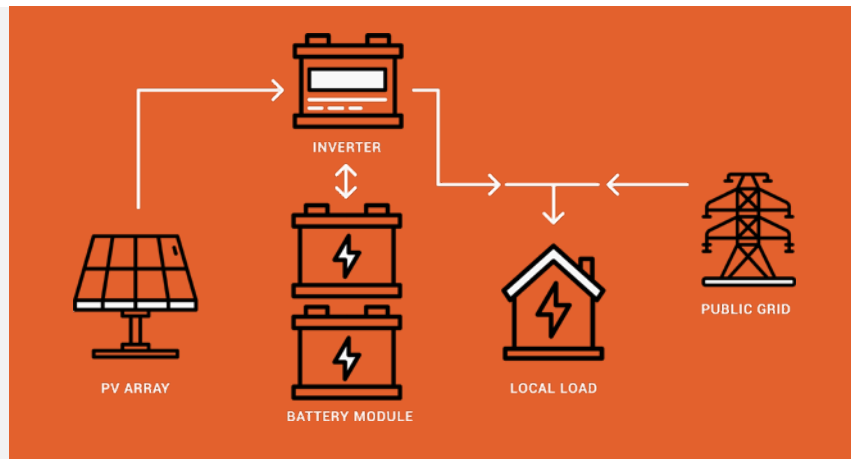
Using trusted Lithium Iron Phosphate (LiFePO₄) cell technology, the X-Range offers a full 50 kW (1000A) sustained output. The control unit comes in 1000A units, giving a wider range of design options. Up to 6 storage expansion units can be paralleled together.

The X-range ships as a fully-enclosed self-standing unit.

The X-range design is a master-secondary configuration and provides scale up options from 43 to 537 kWh.

Top Features

- Scalable in 21.5 kWh increments
- Control box on master unit
- Full suite CAN Bus integration with Victron, SunSynk and SMA inverters
- Built-in battery protection
- On-board diagnostics via Bluetooth(optional)
- CAN Bus-enabled with wide baud rate capabilities and multi PGN reference grid



Why X-Range

- Local assembly and technical support
- Optional Off-site diagnostics (via VRM or the system)
- Nationwide support and maintenance
- Built for residential, small business, light commercial and industrial applications.

Lithium-Ion batteries are selected for:

- Lower lifetime costs
- Lower impact on the environment
- Longer warranty available
- Lighter weight
- Higher efficiency
- Higher cycle life
- Better maintained voltage during the discharge cycle
- Greater depth of discharge
- Lower maintenance
- Predictable service life

Product Name	X-21	X-43	X-64	X-86	X-107	X-215	X-322	X-430	X-537
Cell Type (LFP prismatic) [Ah]	420	840	1260	1680	2100	4200	6300	8400	10500
Battery nominal capacity [kWh]	21.5	43.0	64.5	86.0	107.5	215.0	322.6	430.1	537.6
Battery usable capacity 80% DoD [kWh]	17.2	34.4	51.6	68.8	86.0	172.0	258.0	344.0	430.1
Design life	> 16 years (> 5500 cycles) expected life at 80% DoD								
Warranty	> 10 years (> 4000 cycles) @ 25°C								
Nominal energy [Ah]	420	840	1260	1680	2100	4200	6300	8400	10500
Module voltage [V]	51,2 V _{DC} nominal								
Maximum discharge current (continuous) [A]	400	800	1000	1000	1000	2000	3000	4000	5000
Maximum discharge current (not continuous - 3sec) [A]	480	850	1000	1000	1000	2000	3000	4000	5000
Discharging cut-off voltage (LVD) [V]	50								
Operating Conditions	Temperature range recommended charge -> (0°C~55°C) Discharge -> (-20°C~55°C)								
Protection class	IP22 - no solid ingress and near vertical water droplets								
Safety	Safe cell design Prismatic cells with venting device.								
BMS	BMS system with safety lines & multi-level fault detection system								
Cells thermal management	BMS controlled active cooling								
Transport	UN 3480, CE								
	Mechanical								
Dimensions (W x H x L) Storage Unit [mm]	880x270x630 deep								
Dimensions (W x H x L) Control Box [mm]	880x100x630 deep								
Weight Storage unit [kg]	200								
Communication	CAN Bus								