

**GridtoGo™ Datasheet**

**gridtogo™ INGENIUM LX 45-90 Li**

**Features:**

- 400/230V 50Hz 3Ø 45kVA
- GSM Remote monitoring
- Deep cycle maintenance free li-Ion battery
- 90kWh stored energy
- Full system DC isolator with pre-charge
- 100A pass-through capacity
- Advanced EMS with touch screen control
- V50 Power™ for enhanced DC bus stability



complete power solutions



**3Ø or 1Ø  
400/230V in**



**3Ø 400/230V  
out**

**General Description**

**gridtogo™ INGENIUM** is a universal Energy Storage System (ESS) ideally suited to a range of applications, delivering reliable power in the most cost effective and environmentally sensitive way. Energy stored within the unit is converted electronically into mains power. Power can be derived from integrated solar PV, connection to an external grid supply or from a diesel generator or wind turbine. Energy is automatically managed from any or all of these energy sources to ensure the most efficient, lowest maintenance and best environmental impact is achieved. Remote communication ensures real time monitoring and maintenance can be effected from any location in the world.

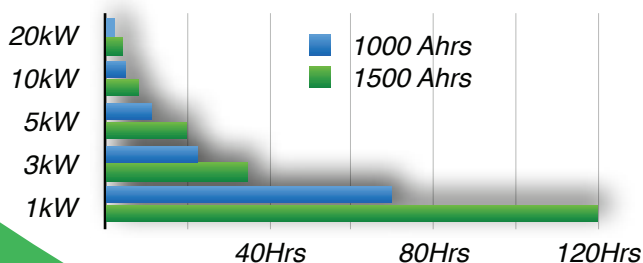
**Many standard features**

The new **gridtogo™ INGENIUM** offers optional features that include automatic system bypass with options that range from 125 to 400A meaning connection of up to 300kVA input without need for additional switchgear, an advanced EMS (Energy Management System) with touch sensitive control panel and automatic DC isolator switch with pre-charge feature. Custom configurable input/output arrangement ensures interface to suit your specific needs.

**Alternative Battery Technologies**

Battery type and specification are critical for reliable performance. The **gridtogo™ INGENIUM** unit is available with alternative battery options that include OPzV-S GEL (to 90kWh), Lead Carbon up to 110kWh and Li-Ion NMC (to 200kWh) offering different properties and to suit specific budgets. Please discuss your needs with a technical advisor to establish the most appropriate specification for your requirements.

Duration vs average load based on OPzV-S lead acid battery



**Custom configured input/output arrangement so your specific preferences can be met as standard**



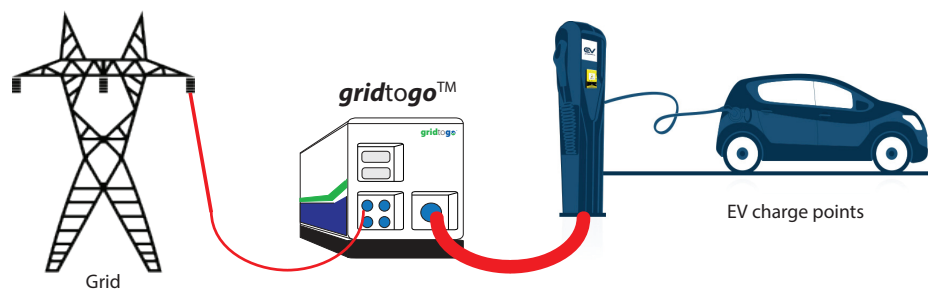
**How long does it last?**

The most common question to be asked is "how long will the unit last on a single charge?" The answer depends entirely on how fast the stored energy is used up. Power usage is not always steady so it's difficult to be specific but, as a guide, this chart shows typical duration based on average power use as a percentage of rated output.

SPECIFICATIONS			
<b>Output (400/230V 50Hz 3Ø):</b>		<b>Instruments, controls &amp; connections:</b>	
Continuous ac (Inverter)	45kVA	Input connection (AC1 & AC2)	IEC 60309 or hardwire stud
Inverter peak power (5 seconds)	90kW	(AC2)	3Ø 400V IEC 60309 or hardwire stud
Pass-through capacity	100A	Output Connections AC	3Ø 400V IEC 60309 or hardwire stud
<b>Input:</b>		Battery condition	✓
AC1 Maximum input 3Ø (Option)	125A	System status control panel	✓
AC2 Maximum input 1Ø	125A 230V	Battery condition	✓
System bypass capacity	125A	Battery main isolator	✓
<b>Dimensions:</b>		Input & Output MCB's	✓
Length	2000mm	Programmable gen auto-start signal	✓
Height	1960mm	<b>Optional features:</b>	
Width	1195mm	Integrated MPPT Solar PV charge controller	• PV
Ingress protection rating	IP34 Suitable for outdoor use	System AC bypass up to 630A (in lieu of standard)	• BPS
Standard Finish	Epoxy Powder Coat RAL 9016	Single to three phase conversion	• PC
Noise Levels	Inaudible above background	Harsh environment pack	• HE
Maximum heat rejection	9kW	Free air cooling pack	• FA

STANDARD BATTERY SPECIFICA	
Battery Type	Li-Ion NMC
Battery design life	4000 cycles to 80% dod
Nominal Battery Capacity	2400 Ahs
Useable stored energy	90kWhrs
Total unit weight (TBC)	2250 kg

*gridtogo™ supporting limited capacity grid to supply EV charging points.*



*Specifications may change without prior notice. E&OE*

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