Benefits

- **Monitoring:** *24Hr monitoring is provided with all our systems and for the life of the system. No subscription fees apply.*
- **Warranty:** *Transparent warranty based on throughput of the batteries, meaning that the number of cycles doesn't affect warranty.*
- **Increased Savings:** *Inverter can be programmed to take advantage of night rate electricity and used to increase savings.*
- **Powercut:** *Essential Services System, allowing some essential services to run in times of a powercut.*
- **Durability:** *IP 65 Rated Products*
- **Recycling:** *All our cells can be fully recycled at the end of their lifetime as we use LiFePO4 Technology (Lithium Ion Phosphate) and not harmful Cobalt.*

LVP RENEWABLES

Unit D2 Northcity Business Park,
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Dublin 11

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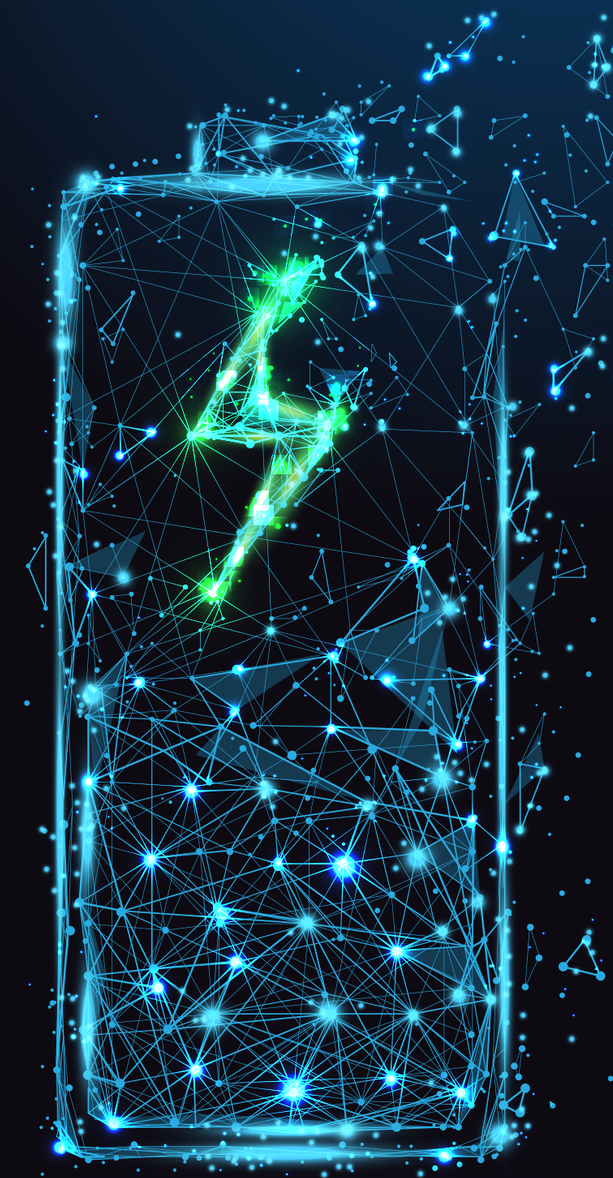
GivEnergy



LVP RENEWABLES

Hybrid Systems

Home Hybrid Inverter

- Compatible with GivEnergy LiFePO4 battery packs
- Essential Services possible in times of powercut
- Installed to new builds or retrofit to an existing solar PV system
- IP65 water-resistant for exterior install
- Remote software updating via WiFi / 3G dongle
- Cloud based monitoring and control through web / app interface
- Batteries are able to charge directly from Solar PV and the Grid
- Available in 3.6kW & 5.0kW models

Dimensions (W/H/D)	**480*440*260mm**
Weight	**24kg**

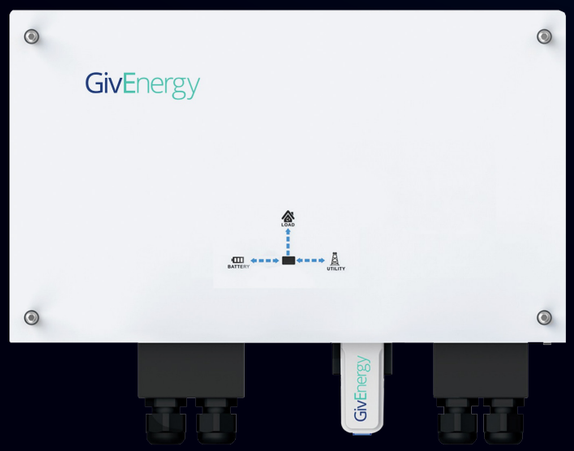
Input Data (DC)	**Giv-HY3.6**	Giv-HY5.0
Max DC power	4500W	6500W
Max DC voltage	600V	
Start voltage	100V	
DC nominal voltage	360V	
PV voltage range	100V - 600V	
MPPT voltage range	120V - 550V	
Max input current per string of tracker A / tracker B	11A/11A	
Number of indepent MPPT Input	2	
Feedback current to the array	OA	

Output Data (AC)	**Giv-HY3.6**	Giv-HY5.0
Nominal AC output power	3680W	5000W
Max AC apparent power	3680VA	5000VA
Max output current	220V/230V/240V;180Vac-280Vac	
AC nominal voltage; range	50,,60Hz;+/-5Hz	
Power factor at rated power	1	
Power factor	0.9leading...0.9laggaing	
THDi	<3%	
AC connection	Single phase(can be linked for three phase)	

Battery	**Giv-HY3.6**	Giv-HY5.0
Battery type	LiFePO4	
Nominal Power	2500W	
Nominal vpltage	51.2V	
Battery capacity	>50Ah	
Max discharging/charging power	2500W/2500W	
Charging curve	3-stage adaptive with maintenance	
Operation voltage range	46-57V	
Max charging/discharging current	50A / 50A	

Emergency Backup Power Output	**Giv-HY3.6**	Giv-HY5.0
Output rated power	97.00%	97.10%
Output voltage	96.50%	96.50%
Maxmium efficiency	99.50%	99.50%

Efficiency	
Euro-ETA	3000VA
MPPT efficieny	230Vac +/-2%, 50Hz (60Hz Optional) +/-0.2%, THDV <3% (linear load)



Battery Storage

$LiFePO_4$

- Using the latest LiFePO4 prismatic cell technology
- Warrented thoughput of 10MWh per 1kWh of stored capacity
  Or 10 Years. Whichever comes first
- 0.5C-1C charge and discharge rate
- 170Wh per Kg +/- 5%
- Plug & Play functionality
- Dual BMS systems allowing greater control and functionality
- Fully Recyclable at end of life
- IP65

Model	**Giv-Bat2.6**	**Giv-Bat6.3**	**Giv-Bat8.2**
Capacity	2.6 kWh	6.3kWh	8.2kWh
Voltage	51.2Vdc	51.2Vdc	51.2Vdc
Current	51Ah	123Ah	162Ah
IP Grade	IP65	IP65	IP65
BMS	Robust multi point mointoring BMS pre installed		
Life cycling (80% DOD, 25°C)	10 years		
Operation temperature	-20°C ~ 55°C		
Storage Temperature	-30°C ~ 60°C		
Warranty BTT	26MWh	63MWh	84MWh
	10 years, whichever comes sooner		
Standard		UN 38.3, IEC61000	
Physical	28kg 380*340*191mm	53kg 690*390*182 mm	84MWh 480*550*220 mm

Electrical Parameters	
Operation voltage	46.4 ~ 57.9Vdc
Maximum Charging Voltage	57Vdc
Maximum Charging / Discharging current	60A / 60A
Network Interface	RS485
Communication Protocols	Modbus
Advantages	Stackable, BMS upgradable, *IP65