



*The Lithium-Ion PowerBrick+ battery 48V-105Ah offers high level of safety through the use of cylindrical cells in Lithium Ferro Phosphate technology (LiFePO<sub>4</sub> or LFP).*

*PowerBrick+ 48V-105Ah integrates an innovative Battery Management System (BMS) in its casing to ensure a very high level of safety in use. The BMS constantly monitors and balances the battery cells to protect the battery and increase its life. The BMS also protects the battery from any misuse: deep discharge, high charging voltage, etc.*



*The PowerBrick+ range has been designed to replace lead-acid batteries advantageously, by offering a quadrupled energy density for an equivalent weight and size.*

*Thanks to its technology, the lithium battery PowerBrick+ 48V-105Ah can be installed in any position (vertically, lying on the side or head down).*

*The electrical parameters of the PowerBrick+ lithium battery 48V-105Ah are compatible in all respects with those of an AGM lead battery of 48V. In the vast majority of cases, the charging system can be kept the same and no additional accessories are required to perform the replacement.*

*Given PowerBrick+ can be 100% discharged, a lead acid or AGM battery can be replaced by a PowerBrick+ with half the capacity of lead acid battery (ie: PowerBrick+ 50Ah can replace a AGM 100Ah battery).*

*The PowerBrick+ Lithium battery 48V-105Ah has a nominal voltage of 51.2V. It can be easily assembled in series (up to 4 batteries in series) and in parallel (up to 15 batteries).*

*The voltage of the final assembly can be from 48V and up to 192V (for 4 packs assembled in series), which meets the needs of almost all electrical applications in traction, solar or wind storage, marine, robotics, trolleys, etc.*

*The battery is protected by a waterproof ABS case, splash and dust resistant (Protection index IP66).*

*The products PowerBrick+ are light, compact, efficient and can be used for all types of uses and applications. PowerBrick+ are designed to drop-in replacement of old generation batteries (Lead VRLA, AGM or OPZ batteries) in 48V, that are low performance and harmful to the environment (use of heavy metals and acid electrolytes).*



# PowerBrick

## Technical Specifications

Electric	Nominal voltage	51.2 V
	Nominal capacity	105 Ah
	Stored energy	5.38 kWh
	Internal resistance	≤ 50 mfi
	Cycles	>3000 cycles (see chart)
	Self discharge	< 3% per month
	Energy efficiency	98%
Standard Charge	Charge voltage	57.6 V ± 0.8V
	Charge mode	CC/CV : Constant Current / Constant Voltage
	Continuous charge current / Maximum charge current	50 A/100 A
	BMS charge cut-off voltage	59.2 V ± 0.4V
Standard Discharge	Instant peak discharge current	500±50 A (max 280ms)
	Continuous discharge current	120 A (6.14 kW)
	Maximum discharge current (< 30s)	200 A (10.24 kW)
	BMS discharge cut-off voltage	40V
Environment	Charge temperature range	0°C to +60°C
	Discharge temperature range	-20°C to +60°C
	Storage temperature	0°C to +50°C @60±25% relative humidity
	IP protection level	IP 66
Mechanical	Cell assembly	16S1P
	Casing material	ABS
	Dimensions	L : 500mm (520mm) x P : 239mm x H : 217 mm
	Weight	37.5 kg
	Terminal	M8 bolt

