



EZA ENERGIE ZEN ALTERNATIVE

Technical Guide



Battery LiFePO4 100Ah EZA ENERGIE100

Ref.: **ENERGIE100**

1. Battery Specifications

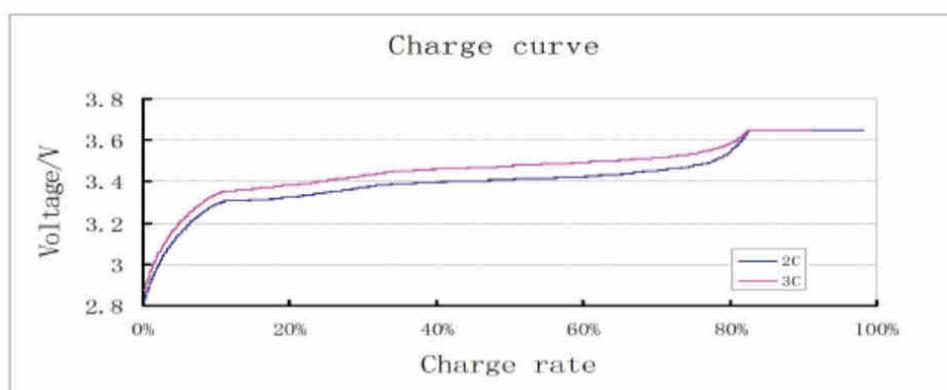
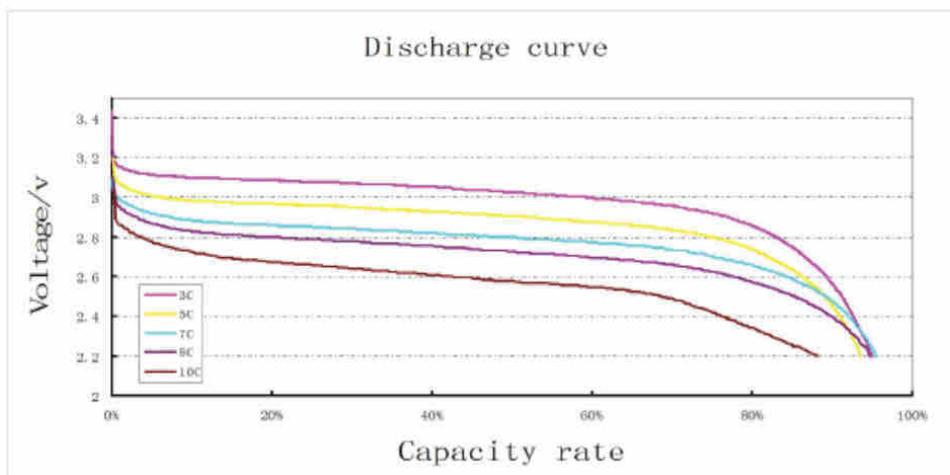
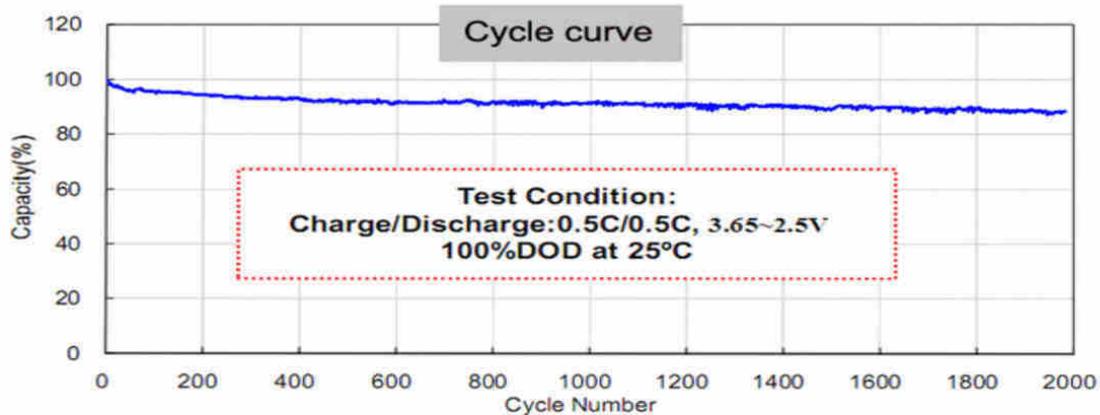
Battery	Configuration		4P4S
	Nominal capacity (0.2C)		≥100AH
	Minimum capacity (0.2C)		100AH
	Nominal voltage (0.2C)		12.8
	Maximum charging voltage (V)		14.6
	Cut off voltage (V)		9.2
	Maximum charging current (A)		50
	Maximum operating current (A)		100
	Weight (approx.)		14.5KG
	Size (depth*length*height)		≤320*128*250mm
	Operating temperature	Charge temperature	0°C ~ 45°C
	Discharge temperature	-20°C ~ 60°C	

2. BMS Specifications

Input Charging Current		50		±5A	A
Output Discharging Voltage		12.8			V
Output Discharging Current		100		±5A	A
Continuous Output Discharging Current		≤110			A
Protection Parameters (for Individual Cell)					
Over-Charge Voltage Protection (OVP)		3.90		±0.025V	V
Over-Charge Voltage Protection Release (OVPR)		3.80		±0.025V	V
Over-Charge Voltage Protection Delay Time (OV PDT)		1			S
Over-Discharge Voltage Protection (UVP)		2.000		±0.08V	V
Over-Discharge Voltage Protection Release (UVPR)		2.300		±0.1V	V
Over-Current Charge Protection (OCCP)		--			A
Over-Current charge Protection Release		--			S
Over-Current Discharge Protection (OCDP)		400		±20A	A
Over-Current Protection Delay Time (OCPDT)		35		±10	mS
Over-Current Discharge Protection Release		Remove load			S
Short circuit current protection		Yes			A
Short circuit current protection delay time		150		±20	uS
Short circuit protection Release		Remove load			
Temperature Protection		75		±5	°C
Temperature Protection Release		55		±5	°C
0V Battery Charger delay time		-----			S
Cell balance					
BleedStartPoint		3.600		±25	mV
BleedAccuracy		-----			mV
BleedCurrent	40		50		mA
Balance Mode		Idle			
Current Consumption					
Ship mode			200		uA
PCM Size		147*140*20mm			



3. Battery Features and Performance



4. Storage and Miscellaneous

5.1 Winter

If the battery is unused for a long period (over 3 months), it should be stored in a ventilated place. If it is unused for over 6 months, it is best to recharge it with a lithium charger.

5.2 Miscellaneous

Any questions which are not covered by this document should be discussed between the customer and the distributor of the product:

SARL LAVI
 ZI Porte du Grand Lyon
 3, Chemin de la Dombes
 01700 NEYRON
 (+33) 4.72.01.89.47
 contact@lavi.fr
 SIRET (ID number): 428 775 977 00047

5. Warranty Period and Responsibility

- The 2 year warranty period commences from the date of delivery and is stated exclusively in the sales contract.
- LAVI will not be liable for any accidents caused by not respecting the safety warnings or instructions.
- If any potential problem is not caused by the manufacturer's production process but rather by the negligence of the customer or incorrect use, we will not be responsible for any replacement.
- LAVI has the right to modify the present conditions without giving customers advance notice.

6. Warning

- Do not dismantle batteries.
- Do not expose batteries to heat or fire.
- Avoid storing in direct sunlight.
- Do not short circuit the battery.
- Do not store batteries haphazardly in a box or cupboard where they could be short circuited by other metallic objects.
- Do not expose batteries to impact.
- In the case of battery leakage, do not allow the liquid into contact with the skin or eyes.
- If this situation occurs, immediately rinse the affected zone with plenty of water and consult a doctor.



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Technical Manual

Batterie LiFePO4 EZA ENERGIE100

[Réf. ENERGIE100]



- ✔ Needs no care or maintenance
- ✔ Protected against current or voltage surges
- ✔ Integrated BMS
- ✔ Fast charging
- ✔ Easy installation
- ✔ Accepts strong discharge currents
- ✔ Powerful
- ✔ Compact
- ✔ Light
- ✔ Long life

General features

Slow discharge battery LiFePO4 **EZA ENERGIE100**
 Capacity: **100 Ah (1200Wh)**
 Dimensions (h) x (l) x (d): 250 x 130 x 320mm
 Weight: 15.16 kg
 Nominal voltage: 12,8V
 Technology: LIFEP04 Lithium Iron Phosphate
 Maximum discharge current: 1500W
 Maximum charge current : 70 Amp
 Maximum charge voltage: 14.6Volts
 Cut off voltage: 9.2 Volts
 Operating temperature: -20°C/+60°C
 Rate of battery discharge: <5%/year

Integrated monitoring module: BMS with :

- Automatic restart (without any intervention)
- Protection against current surges
- Protection against excessive discharge
- Protection against voltage surges
- Protection against extreme temperatures
- Cell balancing function

Endless coupling and/or parallel configuration.

Maximum recharge: 1C (either 70Amp – or with a coupling of 2 batteries 140 Amp...)
 Maximum discharge: 1500 Watts (with a coupling of 2 batteries 3000 Watts...)

2 year guarantee

Complies with CE standards

Button and light indicators of charging status



Installation Diagram 1

EZA ENERGIE100

Battery LiFePO4 EZA ENERGIE100 (X1)

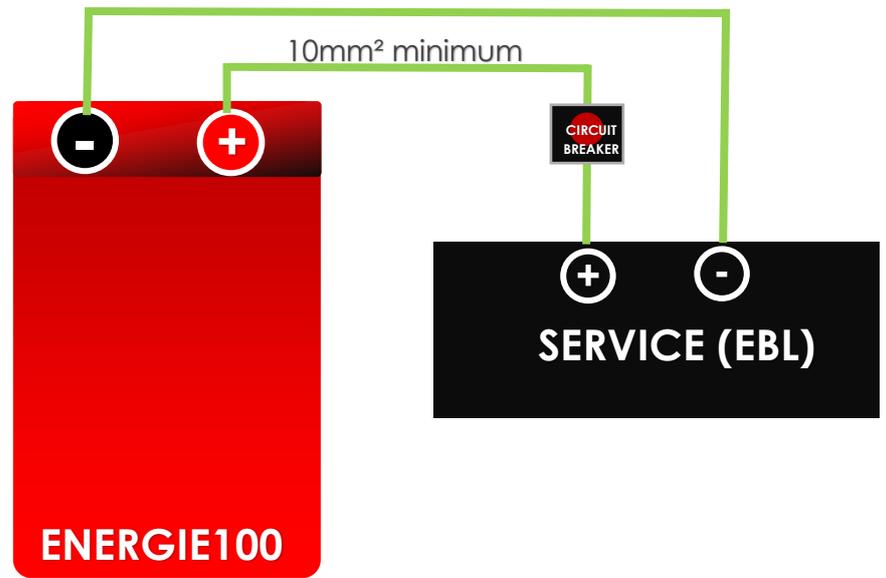
i SIMPLE CAMPERVAN INSTALLATION

WARNING:

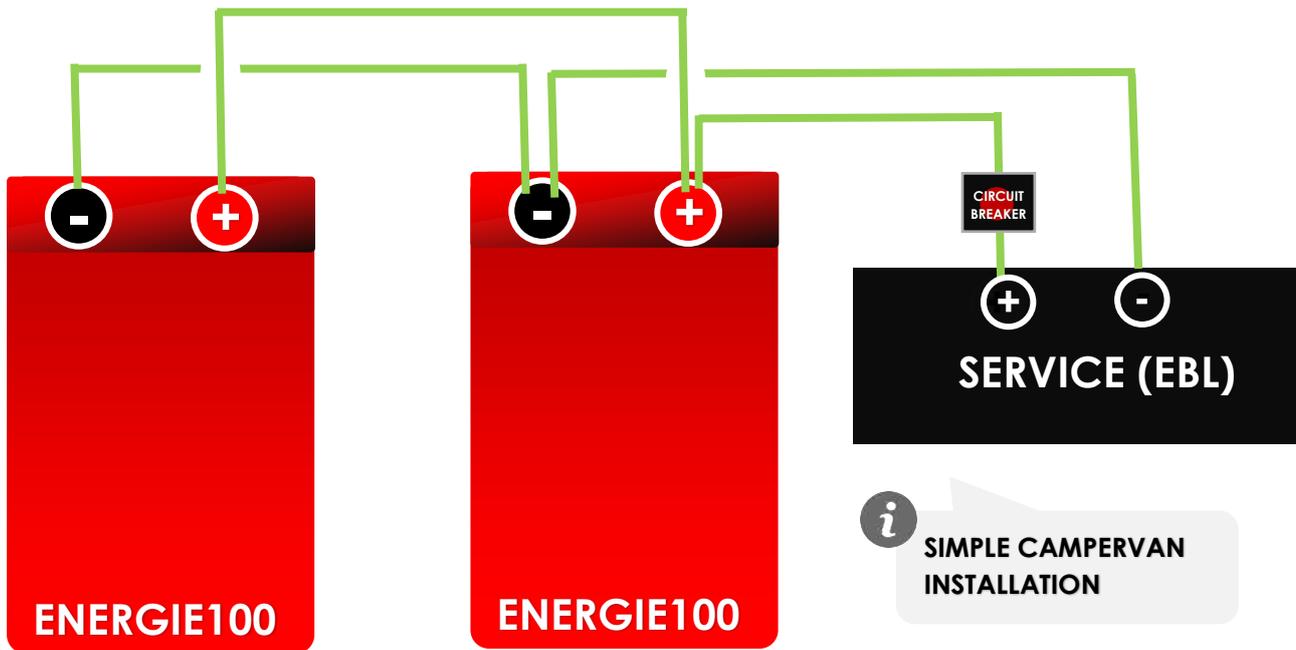
- This installation has risks:

- High voltage depending on the vehicle
- Heavy load

The MBB EZA (ref. MBB1250L) protects against these occurrences.



Battery LiFePO4 EZA ENERGIE100 (X2 – up to MAX 6 batteries)



i SIMPLE CAMPERVAN INSTALLATION

Recommendations:

- The EZA ENERGIE100 batteries can be placed horizontally or vertically.
- Use lithium or gel chargers to optimise the battery's life cycle (cells are balanced at the end of the charge)

WATCH OUT for the thickness of the cables used!

	1xENERGIE100	2xENERGIE100	3xENERGIE100	ETC...
Power rating of converter	1500W	3000W	3000W	3000W
Possible output voltage over 30 seconds	260A	260A	260A	260A
Possible output current over 30 seconds	3000W	3000W	3000W	3000W



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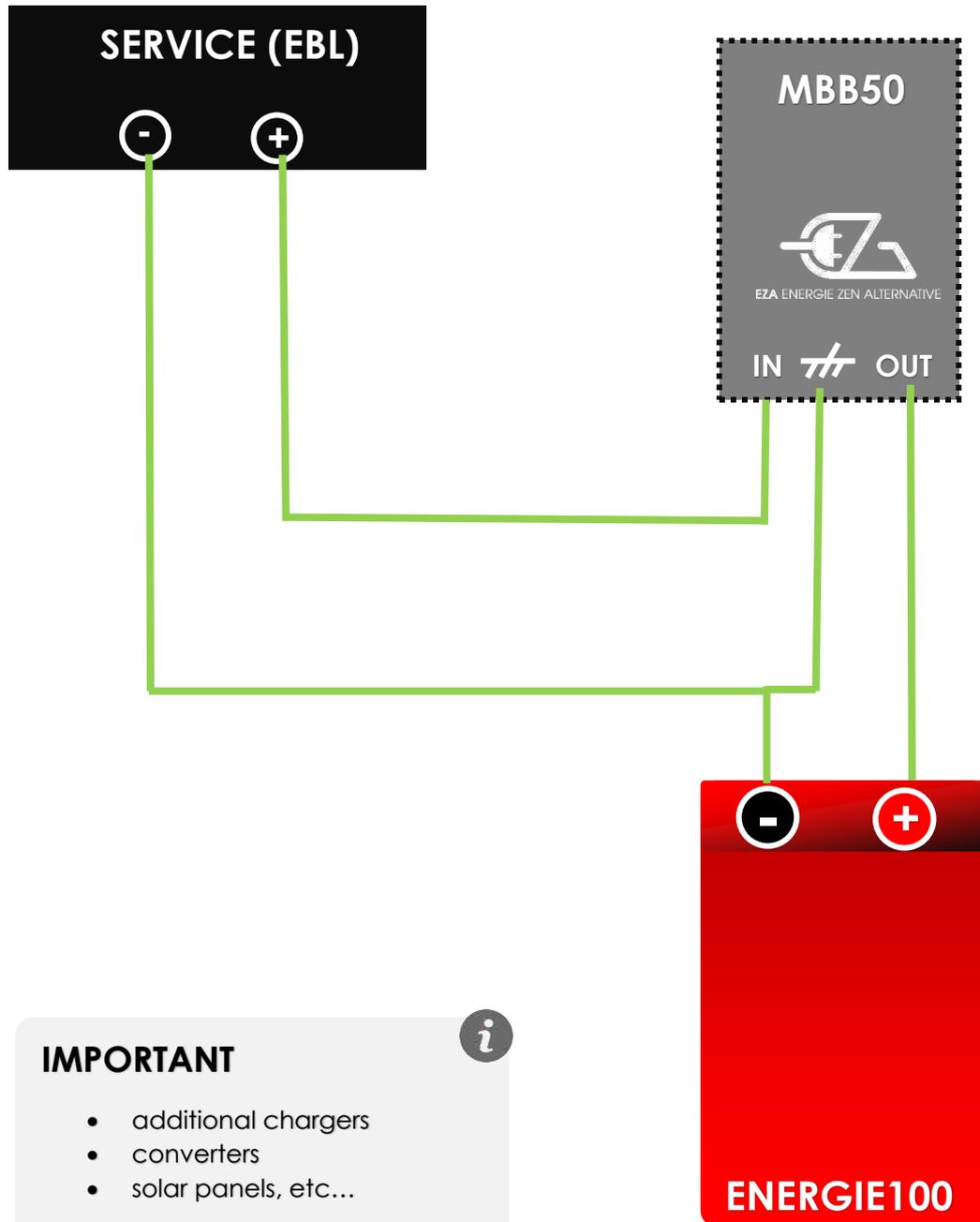
Installation Diagram 2

EZA ENERGIE100



SMART CONNECT

INSTALLATION (with MBB ref.
MBB1250L)



IMPORTANT

- additional chargers
- converters
- solar panels, etc...

should all be connected directly to the EZA ENERGIE100 battery or to another battery...



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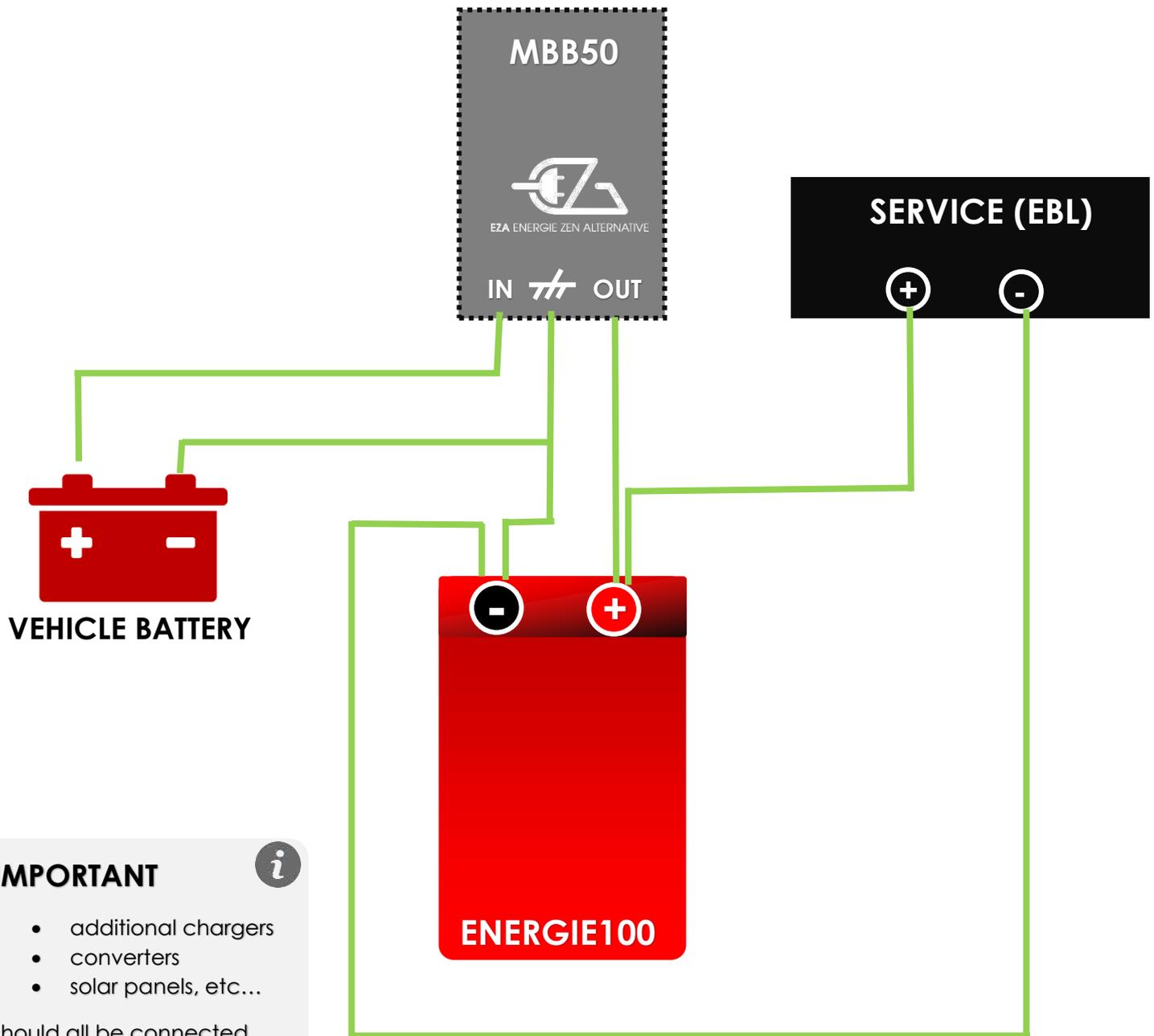
Installation Diagram 3

EZA ENERGIE100



DEDICATED LINE

INSTALLATION (with MBB ref.
MBB1250L)



IMPORTANT



- additional chargers
- converters
- solar panels, etc...

should all be connected directly to the EZA ENERGIE100 battery or to another battery...



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