

SUMMARY

- **General presentation**
- **Technical sheet**
- **Specific features**
 - **Charging mode**
 - **Discharging mode**
 - **Control / Display mode**
- **summary**



General presentation

EZA

Connected Power Pack

Interactive Intelligent System
(Lithium Battery + Electronics +
Solar controller MRC + safety)

"PLUG AND GO« system

No accessory to add, EZA is
equipped with all the electronics
needed to be connected to any
generator available in a
motorhome.

Smaller and lighter

The EZA80 Power Pack was
specially designed to be installed in
place of any lead battery.
Including under the passenger seat
of any van (From the Fiat Ducato
to the WW T6)

Lithium Battery

Simple Battery

Just a battery with a BMS (Battery
Management System)

Necessary Peripherals

Impossible to connect a Lithium
battery in place of a lead battery.
Additional hardwares are required
(coupler / splitter, Battery switch,
safety devices, and other
equipment for Euro 5+ and Euro 6
compatibility.

Sometimes significant size

Not always suitable for
motorhomes



COMPARISON WITH LITHIUM BATTERIES

Technical sheet



REFERENCE	EZA 80 Ah (or 130 Ah)	100 Amp/h Lithium Battery
TECHNOLOGY	LIFEPO	LIFEPO
Capacity	80Ah	100Ah
Rated voltage	12V	12V
Maximum load voltage	14,6V	14,6V
Minimum discharge voltage	10V	10V
Maximum charging current	70A (limited)	100A
Maximum discharge current (5 mn)	150A	300A
weight	17kg	21 Kg
Dimensions: length x width x height mm	260 x 300 x 180	365 x 265 x 190
Lifespan: cycles	2500	2500
Self discharge per year	< 3%	< 3%
Load temperature	0°C à 45°C	0°C à 45°C
Discharge temperature	-20°C à 60°C	-20°C à 60°C
Storage temperature	-20°C à 60°C	-20°C à 60°C
Warranty in Months	24 (possible 60)	36
BMS protection system	Yes	Yes
Battery coupling	Yes	Yes
Bluetooth Module	Yes	No
Control module for Solar Charge	Yes	No
Alternator coupling module	Yes	No
EURO 6 charge control module	Yes	No
Display	Application	Option for a remote control indicator



eza.fr



Suivez-nous !



EZA ENERGIE ZEN ALTERNATIVE

Specific Features

Charging Mode

3 separate lines, secured and specifically adjusted to their generator's

EZA versus Lithium Battery

□ Engine load line (red)

- It's EZA that controls the coupling of the engine with the Power Pack and keeps priority to the engine battery
 - ✓ Lithium batteries require a coupler / splitter.
- Online secured charge limited to 70 Amp to protect the carrier, the alternator and prevent cable overheating.
 - ✓ An empty lithium battery can take more than 100 Amps which would require appropriate wiring.
 - ✓ Tests have shown that uncontrolled load could default the carrier (red indicator lights up) when many accessories are operated simultaneously (Fog lamps, wipers, lights-road heating, etc ..)
 - ✓ Special MRC (load control module) allowing to charge EZA on the new carrier (Euro 5+ and Euro 6) while respecting Lithium load curves.

Other Lithium batteries :

- ✓ Require to bypass the Euro5+ or Euro6 device or a Booster for Euro 5+ and Euro 6 compatibility,
- ✓ Require an Anti return diodes.
- ✓ Lithium batteries are given for 2500 cycles provided that their specific load curves be complied with.



EZA

☐ Solar charge dedicated line (yellow)

- The EZA Power Pack is equipped with its own solar controller that can support up to 400W solar panels or wind turbine while complying with lithium load curves.

Other Lithium batteries :

- ✓ Specify MPPT regulators that do not comply with Lithium load curves.

A charge that respects lithium technology is a guarantee of a longer life.

☐ Auxiliary load line (Blue)

- Secured line limited to 70 Amp 12V for EZA 130 and 140 Amp 12V for EZA260. The Power Pack is compatible with any 12V chargers on the market (EFOY-Tel-air Bullpower- etc ...)

- ✓ Other batteries have no secured lines.



Specific Features

Discharge Mode :

2 separate lines for greater security and readability of flow

EZA

❑ *Ligne de servitude 12V (noir)*

- secured line limited to 70 Amp to prevent overheating of existing cables.
 - ✓ With other batteries watch out the cable thickness
- Line equipped with a low voltage security. Prevents the Power Pack of getting into safety mode when get to zero. No manual reset procedure
 - ✓ Other batteries need to be reset
- Line equipped with a low voltage alarm, alerting the user before reaching zero.
 - ✓ No warning on other lithium batteries

❑ *12V high power bondage line (Grey)*

- secured line, controlled and limited to 150 Amp
 - ✓ Allows to take control of an inverter either manually or automatically and avoids unnecessary consumption.
 - ✓ No remote controller needed for the inverter the function is available on the application.
 - ✓ None of these features are available on other batteries



Specific Features

Control / Display mode

Interactive, it communicates via the application

❑ Autonomy

- Provides a comprehensive vision based on instantaneous consumption. Better visibility without calculations for the user
 - ✓ Extremely rarely, see non-existent on other batteries

❑ Reading of current flows

- Allows the control of the generators and consumers with perfect and easy visibility for the user. Very convenient for the customer service, facilitates controls and operating of the charger, solar panel etc ..,
 - ✓ Extremely rarely, see non-existent on other batteries

❑ Control via a PC interface

- Enables to take control of some settings of the Power Pack and to modify certain features. Possibility to adapt the Power Pack to requirements of a manufacturer for example.
 - ✓ Non existing on other batteries



COMPARISON WITH LITHIUM BATTERIES

SUMMARY

	EZA	Avantage	BATTERIE LITHIUM
Protections	BMS Protection		Yes
	short cut protection		Yes
	Protection of charging and discharging lines	Automatic restart without BMS reset	Yes
	9.8 Volts low voltage protection		NO
	Low battery alarm 10V		NO
	Supports the START & STOP mode of engine		NO
Engine Loading Line	Euro5+ & Euro6 compatible	sustainable investment	NO
		Standards complied by the manufacturer and / or installer	NO
	limited loading to 70 Amp	Carrier Safety	NO
	Control « engine running »	Engine battery charging priority	NO
	Control engine battery voltage level	Safety low voltage / engine battery	NO
	integrated charging module	<ul style="list-style-type: none"> - Intelligent loading - 70 A loading limitation - Optimization of loading if difference of voltage - Charging cycle complies with LiFePo recommendations - Battery cell balancing 	NO
Auxiliary load line	separate line, limited to 70 Amp 12V		NO separate line
Solar charge line	Integrated 400 W special EZA Regulator	charge cycles conforms to the LiFePo load recommendation	NO
	automatic balancing of the Power Pack cells during charging		NO
Motorhome 12 V discharge line	Limited to 70Amp	Security to avoid cables from heating	NO
1500 W discharge line (dedicated for an inverter)	Controlled inverter	No need of remote control	NO
	150 Amp peak	1800W peak	Yes
	Automatic cut off when engine is started	Conforms with standards for non presence of 230 Volts when engine on	NO
Management and Display	Calculation of autonomy available capacity	Better visibility for users	Very rarely
	instant and specific control of loads and consumptions. Reading power flows		Very rarely, often only the Voltage
Plug and Go	Easy to install	Nothing to add to EZA	NO
		Everything is guaranteed by EZA	NO
PC Interface	It is possible to configure EZA to comply with special needs that customers can have.	Flexible and responsive to needs	NO



eza.fr



Suivez-nous !



EZA ENERGIE ZEN ALTERNATIVE