

ALIANTE™ ULTRALIGHT BATTERY

EA SERIES

LITHIUM



STATIONARY BATTERY / EA Series

High Capacity, Low Weight!

12 V / 20 – 45 – 100 Ah

Ultralight stationary battery based on lithium iron phosphate technology.

Specifically designed for applications which require maximum durability, maximum charge reserve and maximum Depth of Discharge.



- Electric traction systems
- Energy storage for industrial automation
- Accumulation systems for renewable energy

This family of product is suitable for replacing every kind of traditional lead-acid battery installed at present without making any change to the existing electrical system.

Exclusive characteristics

- Maximum capacity in minimum space
- Useful life is 5 or 10 times higher than a traditional battery
- Embedded BMS microprocessor
- Weight reduction: 50% lighter than a traditional battery
- Ultrafast fully charge
- Lowest self-discharge rate: < 0,03 % daily (offline battery)
- Fit any mounting position
- Excellent behavior at high temperature
- Exceptional reserve of charge and voltage stability under load

Ecology and Safety

- Lithium iron phosphate cells LiFePO4 for maximum safety
- Embedded electronics protection (over current, over charge and under discharge)
- No liquids inside
- Low environmental impact materials
- Free from lead and other harmful materials according to ROHS
- Strong plastic housing in PE-PP

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Guaranteed Quality

- Quality Control carried out separately for each production step
- Partially automated assembling
- Cutting-edge components

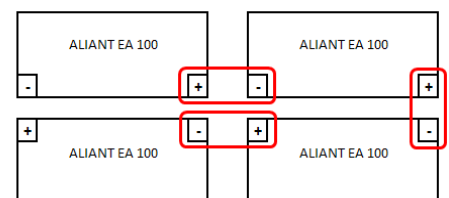
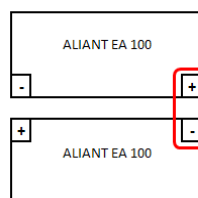
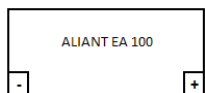
Certifications

- Electromagnetic compatibility [EN 61000-6-1, EN 61000-6-3]
- CE Conformity
- Statement ROHS [2002/95/EC]

Technical Specifications

Model	EA018	EA020	EA045	EA065	EA085	EA100
Nominal Voltage	12,8 V					
Capacity	18 Ah	20 Ah	45 Ah	65 Ah	85 Ah	100 Ah
Continuous discharge current	18 A	25 A	45 A	65 A	85 A	120 A
Nom. charge current @ 25°C	5 A	5 A	10 A	12 A	12 A	12 A
Max charge current @ 25°C	10 A	10 A	20 A	20 A	20 A	20 A
Life cycles (charge / discharge 1C)	2000 cycles @ 80% D.o.d. 3000 cycles @ 70% D.o.d.					
Life	5-7 years					
Charging voltage	14,4 V					
Max charging voltage	14,6 V					
Weight	≈2,3 Kg	≈ 3,2 Kg	≈ 7 Kg	≈8,2 Kg	≈10 Kg	≈ 13 Kg
Dimensions [mm]	181 x 76 x H 166	181 x 76 x H 166	195 x 130 x H 183	250 x 170 x H 200	260 x 158 x H 246	260 x 158 x H 246
Volume Density [Wh/Lt]	≈ 100	≈ 110	≈ 115	≈ 100	≈ 110	≈ 125
Weight Density [Wh/Kg]	≈ 100	≈ 85	≈ 75	≈ 100	≈ 110	≈ 100
Temperature	-20°C / +60°C [operative and storage]					
Lead Eq. battery	25 Ah	30 Ah	60 Ah	90 Ah	120 Ah	150 Ah

Battery Layout



24V/36V/48V connection schematics

Series battery connection allowed. Avoid parallel connection. Make sure that the Open Circuit Voltage battery charger not be over 18 Volts, it can be dangerous for MOSFETs inside the BMS



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Recharge these batteries with ALIANTE™ chargers, the use of other chargers / maintainers charge must be previously verified with technical support Aliante.

Do not short-circuit. Please read the instruction manual before use. ELSA Solutions reserves the right to modify these without notice.

The EA Aliante™ batteries are not approved for use on cars.

ALIANTE™ ULTRALIGHT BATTERY is a product by ELSA Solutions srl

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