

STATIONARY BATTERY / EA Series

High Capacity, Low Weight!

12 V - 24 V - 48 V / 18 - 20 - 45 - 65 - 85 - 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-PPCompatibilità Elettromagnetica [EN 61000-6-1, EN 61000-6-3]

Guaranteed Quality

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



800 132 166





LE BATTERIE AL LITIO NON SONO TUTTE UGUALI



Certifications

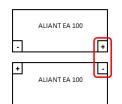
- Electromagnetic compatibility [EN 61000-6-1, EN 61000-6-3]
- **CE Conformity**

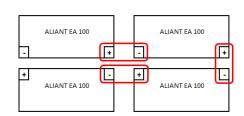
Technical Specifications

Model	EA018	EA020 (*HP)	EA045	EA065	EA085	EA100	
Nominal Voltage	12,8 V						
Capacity	18 Ah	20 Ah	45 Ah	65 Ah	85 Ah	100 Ah	
Continuous discharge	18 A	25 A (*50 A)	45 A	65 A	85 A	120 A	
current							
Nom. charge current @	5 A	5 A	10 A	12 A	12 A	12 A	
25°C							
Max charge current @	10 A	10 A	20 A	20 A	20 A	20 A	
25°C							
Life cycles	2000 cycles @ 80% D.o.d.						
(charge / discharge 1C)	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	181 x 76 x H	195 x 130 x	260 x 170	260 x 158 x	260 x 158	
	H 166	166	H 183	x H 230	H 246	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]						
	0 / + 30°C [storage]						
Lead Eq. battery	25 Ah	30 Ah	60 Ah	90 Ah	120 Ah	150 Ah	

Terminals 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







info@go-aliant.com www.go-aliant.com



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Others models availale - LV

Model	24EA020	24EA050	24EA100	48EA045		
Nominal Voltage	25,6 V	25,6 V	25,6 V	51,2 V		
Capacity	20 Ah	50 Ah	100 Ah	45 Ah		
Continuous discharge current	20 A	50 A	100 A	45 A		
Nom. charge current @ 25°C	5 A	10 A	50 A	10 A		
Max charge current @ 25°C	10 A	20 A	50 A	20 A		
Life cycles (charge / discharge 1C)		2000 cicli @ 80% D.o.d. / 3000 cycle @ 70% D.o.d.				
Life		5-7 years				
Charging voltage	28,8 V	28,8 V	28,8 V	57,6 V		
Max charging voltage	29,2 V	29,2 V	29,2 V	58,4 V		
Weight	≈ 7 Kg	≈ 12 Kg	≈ 28 Kg	≈ 25 Kg		
Dimensions [mm]	195 x 130 x H 183	260 x 158 x H 246	520 x 270 x H 230 mm	350 x 158 x H 270		
Volume Density[Wh/Lt]	≈ 115	≈ 125	≈ 125	≈ 125		
Weight Density [Wh/Kg]	≈ 75	≈ 100	≈ 100	≈ 100		
Temperature	-20°C / +60°C [operative] 0 / + 30°C [storage]					
Lead Eq. battery	25 Ah	65 Ah		60 Ah		

Terminals Layout



Aliant EA batteries can be connected in series for system configurations in modular structure. Possibility of series connection (maximum 48V)

Recharge these batteries with ALIANT ™ charger; the use of other chargers / maintainers charge must be previously verified with technical support Aliant. Do not short-circuit. **Please read the instruction manual before use.** ELSA Solutions reserves the right to modify these without notice. The EA Aliant [™] batteries are not approved for street use on cars.









