

## Sealed Maintenance Free Lead Acid Aircraft batteries



HBL Power Systems Ltd. is a listed Indian company, in business since 1977, with a focus on engineered products and services. Our initial business strategy was to identify technology gaps in India that the company could fill by 'indigenous efforts'.

Nickel Cadmium aircraft batteries, developed for the Ministry of Defence, were among the first products of the company. Subsequently, Silver Zinc aircraft batteries and Sealed Lead Acid aircraft batteries [SILVER START] were added to extend the range and offer a wider choice for our customers.

Silver Start on-board aircraft batteries employ Pure Lead-Tin, Thin Plate technology for high-performance. These Valve Regulated Lead Acid (VRLA) batteries are designed using Absorbent Glass Mat (AGM) separators that render the batteries spill-proof for aerobatic use. The use of AGM separators in combination with self-resealing, pressure-regulating valves and a starved electrolyte design enable recombination of gases generated during normal operation. This eliminates the need for electrolyte top-up.

Silver Start batteries are delivered fully charged and are ready for immediate use. These batteries are a replacement for the Russian 12CAM28 dry charged lead acid battery.

Our success has been built serving some of the world's most demanding customers and we would welcome an opportunity to serve your business too.

## High-quality manufacturing

Each step of the manufacturing process is carried out under controlled conditions to ensure quality. Compliant with aviation, safety, quality & environmental standards

- Global Quality & Environmental - ISO 9001, ISO 14001, OHSAS 18001
- Centre for Military Airworthiness and Certification (CEMILAC), MOD,

Silver Start (SS28300) is a 24V, 28Ah@5hr battery consisting of two 12V blocks connected together in series. This battery is used for on-board aircraft starting and for providing emergency backup.

The SS28300 battery is available with or without the battery box in various configurations depending on the requirements of the specific helicopter/aircraft:

### Commercial Aircraft

### Military Aircraft



Helicopters



Turboprops



Business Jets



UAV

| Battery Type | Application                         |
|--------------|-------------------------------------|
| SS 28300 MI  | MI 8 Helicopter<br>MI 17 Helicopter |
|              | AN 32 Aircraft                      |

The Ss28300 battery is also suitable (with minor modifications of battery box) for use on

- MI-14, MI-24 (MI-35)
- AN-22, AN-24, AN-26
- IL-38

### Conformance Standards

Silver Start batteries conform to the MIL 8565K standard and Indian MOD standard.



**APPLICATION:**  
**ON-BOARD STARTING**  
**& EMERGENCY BACK-UP**

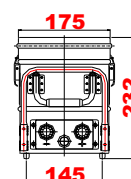
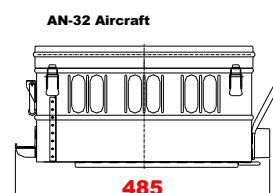
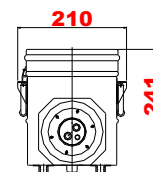
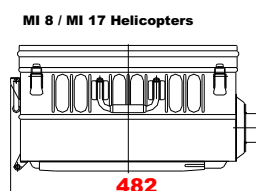
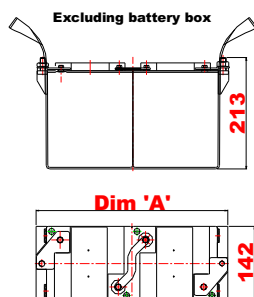
## Features:

- Excellent high rate capability (>1000 A)
- Wide operating temperature range (-40°C to +50°C)
- Maintenance-free and spill-proof for aerobatic use
- High energy density leading to reduced weight
- High charge retention leading to long storage life
- UL approved flame-retardant ABS containers and lids for safety
- Superior raw materials for good performance and life

## Performance:

| S.No. | Performance Parameter  | Performance  |
|-------|--|--|
| 01    | Rated capacity at 'C5' rate at 25°C  | 28 Ah to 21V (1.75 V/cell)   |
| 02    | Capacity at 28A current to 21 Volts<br>a) Normal Temperature (25°C)<br>b) Low Temperature (-5°C) | 18 Ah<br>14 Ah   |
| 03    | Number of engine starts at 25°C  | 4 starts in 1 <sup>st</sup> year<br>3 starts in 2 <sup>nd</sup> year |
| 04    | Number of engine starts at -5°C  | 2 starts   |
| 05    | Number of engine starts at -18°C   | 1 start  |

## Dimensions & Weight :



| Parameter                | MI8 / MI17   | AN-32 |
|--------------------------|--------------|-------|
| Dim 'A' mm               | 366          |       |
| Weight (without box) kgs | 26 (approx.) |       |
| Weight (with box) kgs    | 31 (approx.) |       |



## Worldwide Distribution Network

HBL's worldwide network of strategically located subsidiaries/distributors ensure timely supplies and services.

For more details please visit our website [www.hbl.in](http://www.hbl.in)

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