

**National Institute of Solar Energy**  
(Formerly known as Solar Energy Centre)  
(An autonomous institute of Ministry of New & Renewable Energy)  
Village & Post-Gwalpahari, Dist.-Gurgaon, (Haryana), Pin – 122003  
Ph. 0124-2579251 (CSC), Fax: 0124-2579207

2017-2018

**TEST REPORT ON BATTERY**

Sample ID No. 17/17/BT

Manufactured by: M/s Eastman Auto & Power Ltd., Tehsil-Nalagarh,  
Solan, H.P.-174101

Submitted by : M/s Eastman Auto & Power Ltd., 547, Udyog Vihar,  
Phase-V, Gurgaon-122016, Haryana

This is a report on measurements of **Capacity rating, Charge efficiency & Self Discharge** carried out on the Battery (sample no. 17/17/BT) submitted at National Institute of Solar Energy as per **IS 13369:1992** standard. **The data reported in this TEST REPORT are valid at the time of and under the stipulated conditions of measurement and the test results are applicable to this battery only and do not apply to other batteries even though declared to be identical.** The data contents in this report do not constitute a qualification test certificate. NISE does not accept any liability for any consequences including commercial or otherwise arising out of the utilization of the information contained in this report.

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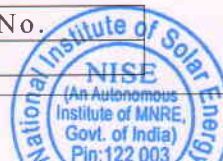
*Bhargava*  
24/10/2017

*R Singh*  
24/10/17

*Rajendra Kumar*  
24/10/17

*Shuchi*  
25/10/2017

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# TEST REPORT OF LEAD ACID BATTERY

**Sample ID No. 17/17/BT**

**Manufactured by: M/s Eastman Auto & Power Ltd., Tehsil-Nalagarh,  
Solan, H.P.-174101**

**Submitted by : M/s Eastman Auto & Power Ltd., 547, Udyog Vihar,  
Phase-V, Gurgaon-122016, Haryana**

S.No	Test Description	Manufacture's Claim	Observations	Remarks
1	(I) Brand/Model (ii) Type (iii) S.No. (iv) Year (v) <b>Rating</b> (a) Voltage (b) <b>Capacity</b> at C/10 discharge rate	Eastman/EM40SB Tubular Lead Acid UE04720184 2017  12V 40Ah	Eastman/EM40SB Tubular Lead Acid UE04720184 2017  12V 47.36Ah	cut off voltage <b>10.8 V</b>
2	<b>Charging Efficiency:</b>  (A) Capacity on discharging at (C/10) constant current continuously up to cut off voltage.  (B) Capacity after recharging the battery by <b>46.87Ah</b> and then again discharging up to cut off voltage.  (C) Efficiency-Ah & Wh		46.87Ah   43.01Ah   91.8% & 77.6%	Average Charging Voltage <b>=14.2V</b>  Average discharging voltage <b>=12.0V</b>

*B. Sharma*  
24/10/2017

*B. Singh*  
24/10/2017

*P. K. G. G. G.*  
24/10/2017

*S. Singh*  
24/10/2017

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3	<b>Self-discharge test:</b>  <b>(A)</b> Initial Capacity measured as per IS 13369:1992  <b>(B)</b> Final Capacity after keeping 28 days at $27 \pm 5$ deg.C temperature.  <b>(C)</b> Self Discharge (%)	44.81Ah  44.38Ah  0.96%
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**Tested & Prepared By:**

Bipin Kumar Sharma

Date: 24/10/2017

*B Sharma*

**Checked By:**

Rashmi Singh

Date: 24/10/17

*R Singh*

**Approved By:**

Dr. Rajesh Kumar

Date:

*Rajesh Kumar*  
24/10/17

**Issued By:**

Name:

Date:

*Shuchi*  
25/10/2017



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