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

2015-2016

TEST REPORT ON BATTERY

Sample ID No. 24/15/BT

Manufactured by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

Submitted by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

This is a report on measurement of **Self Discharge Only** carried out on the battery (sample no. **24/15/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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Manish
24/11/15

Rajesh Kumar
24/XI/2015

TEST REPORT
OF
LEAD ACID BATTERY

Sample ID No. 24/15/BT

Manufactured by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

Submitted by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

S.No	Test Description	Manufacture's Claim	Observations	Remarks
1	(I) Brand/Model	Altima/6ALS 20	Altima/6ALS 20	cut off voltage 10.8 V
	(ii) Type	Lead Acid	Lead Acid	
	(iii) S.No.	D15G-27-100	D15G-27-100	
	(iv) Year	2015	2015	
	(v) Rating			
	(a) Voltage	12V	12V	
	(b) Capacity at C10 discharge rate	20Ah	24.89Ah	
	(vi) Dimension (mm)	259x170x200	260x175x220	
	(vii) Weight before testing (kg)	15Kg	14.10Kg	
2	**Charging Efficiency:**			
	(A) Capacity on discharging at (C 10) constant current continuously up to cut off voltage.		24.48Ah	Average Charging Voltage -13.58V
	(B)Capacity after recharging the battery by **24.48Ah** and then again discharging up to cut off voltage.		22.92Ah	Average discharging voltage -12.10V
	(C)Efficiency-Ah & Wh		93.63% & 83.43%	

Prepared by: Manish
Date: 27/x/15

Approved by: Rajesh Kumar 27/x/15
Date:

Issued by: Manish 27/10/2015
Date:

National Institute of Solar Energy NISE

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2015-2016

TEST REPORT ON BATTERY

Sample ID No. 25/15/BT

Manufactured by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

Submitted by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

This is a report on measurements of **Capacity rating & Charge efficiency** carried out on the battery (sample no. **25/15/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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Manish 27/X/15

Rajesh Kumar 27/X/15

National Institute of Solar Energy NISE GURGAON

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TEST REPORT
OF
LEAD ACID BATTERY

Sample ID No. 25/15/BT

Manufactured by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

Submitted by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

S.No	Test Description	Manufacture's Claim	Observations	Remarks
1	(I) Brand/Model	Altima/6ALS 40	Altima/6ALS 40	cut off voltage 10.8 V
	(ii) Type	Lead Acid	Lead Acid	
	(iii) S.No	D15G-05-013	D15G-05-013	
	(iv) Year	2015	2015	
	(v) Rating			
	(a) Voltage	12V	12V	
	(b) Capacity at C10 discharge rate	40Ah	44.11Ah	
	(vi) Dimension (mm)	404x175x255	410x175x240	
	(vii) Weight before testing (kg)	21Kg	22.59Kg	
2	Charging Efficiency:			
	(A) Capacity on discharging at (C 10) constant current continuously up to cut off voltage.		43.54Ah	Average Charging Voltage =13.57V
	(B)Capacity after recharging the battery by 43.54Ah and then again discharging up to cut off voltage.		41.18Ah	Average discharging voltage =12.03V
	(C)Efficiency-Ah & Wh		94.58% & 83.85%	

Prepared by: Manish
Date : 27/x/15

Approved by: Rajesh Kumar 27/x/15
Date:

Issued by
Date: 27/10/2015

National Institute of Solar Energy NISE Gurgaon

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2015-2016

TEST REPORT ON BATTERY

Sample ID No. 26/15/BT

Manufactured by : M/s A.H. ENTERPRISES, Village BhatoliKalan, P.O-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

Submitted by : M/s A.H. ENTERPRISES, Village BhatoliKalan, P.O-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

This is a report on measurements of **Capacity rating & Charge efficiency** carried out on the battery (sample no. **26/15/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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Manish 27/X/15

Rajesh Kumar 27/X/15

National Institute of Solar Energy NISE GURGAON

TEST REPORT
OF
LEAD ACID BATTERY

Sample ID No. 26/15/BT

Manufactured by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

Submitted by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

S.No	Test Description	Manufacture's Claim	Observations	Remarks
1	(I) Brand/Model (ii) Type (iii) S.No. (iv) Year (v) **Rating** (a) Voltage (b) **Capacity** at C10 discharge rate (vi) Dimension (mm) (vii) Weight before testing (kg)	Altima/6ALS 75 Lead Acid D15G-05-018 2015 12V 75Ah 504x218x266 40Kg	Altima/6ALS 75 Lead Acid D15G-05-018 2015 12V 84.60Ah 500x222x250 35.94Kg	cut off voltage **10.8 V**
2	**Charging Efficiency:** (A) Capacity on discharging at (C 10) constant current continuously up to cut off voltage. (B)Capacity after recharging the battery by **83.74Ah** and then again discharging up to cut off voltage. (C)Efficiency-Ah & Wh		83.74Ah 78.52Ah 93.77% & 84.24%	Average Charging Voltage =**13.38V** Average discharging voltage =**12.02V**

Prepared by: Manish
Date: 27/X/15

Approved by: R.C. Kumar 27/X/15
Date:

Issued by: Shweta 27/10/2015
Date.

National Institute of Solar Energy NISE Ministry of New & Renewable Energy

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2015-2016

TEST REPORT ON BATTERY

Sample ID No. 27/15/BT

Manufactured by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

Submitted by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

This is a report on measurements of **Capacity rating & Charge efficiency** carried out on the battery (sample no. **27/15/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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27/10/15

Rajesh Kumar 27/10/15

National Institute of Solar Energy NISE GURGAON

TEST REPORT
OF
LEAD ACID BATTERY

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Manufactured by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

Submitted by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

S.No	Test Description	Manufacture's Claim	Observations	Remarks
1	(i) Brand/Model (ii) Type (iii) S.No. (iv) Year (v) **Rating** (a) Voltage (b) **Capacity** at C10 discharge rate (vi) Dimension (mm) (vii) Weight before testing (kg)	Altima/6ALS 100 Lead Acid D15G-05-019 2015 12V 100Ah 504x218x266 44Kg	Altima/6ALS 100 Lead Acid D15G-05-019 2015 12V 106.3Ah 500x222x250 39.39Kg	cut off voltage 10.8 V
2	**Charging Efficiency:** (A) Capacity on discharging at (C 10) constant current continuously up to cut off voltage. (B)Capacity after recharging the battery by **104.7Ah** and then again discharging up to cut off voltage. (C)Efficiency-Ah & Wh		104.7Ah 94.49Ah 90.25% & 81.16%	Average Charging Voltage =13.40V Average discharging voltage =12.05V

Prepared by: Manish
Date : 27/X/15

Approved by: Rajeev Kumar 27/X/15
Date:

Issued by
Date: 27/10/2015

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2015-2016

TEST REPORT ON BATTERY

Sample ID No. 28/15/BT

Manufactured by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

Submitted by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

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Manish
24/11/15

R Gopal Kumar
24/11/2015

TEST REPORT
OF
LEAD ACID BATTERY

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Submitted by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

S.No	Test Description	Manufacture's Claim	Observations	Remarks
1	(i) Brand/Model (ii) Type (iii) S.No. (iv) Year (v) **Rating** (a) Voltage (b) **Capacity** at C10 discharge rate (vi) Dimension (mm) (vii) Weight before testing (kg)	Altima/6ALS 120 Lead Acid D15G-27-022 2015 12V 120Ah 517x273x266 52Kg	Altima/6ALS 120 Lead Acid D15G-27-022 2015 12V 125.1Ah 495x190x405 53.38Kg	cut off voltage 10.8 V
2	**Charging Efficiency:** (A) Capacity on discharging at (C 10) constant current continuously up to cut off voltage. (B)Capacity after recharging the battery by **126.9Ah** and then again discharging up to cut off voltage. (C)Efficiency-Ah & Wh		126.9Ah 119.4Ah 94.09% & 82.78%	Average Charging Voltage =13.64V Average discharging voltage =12V

Prepared by: Manish
Date : 24/11/15

Approved by: Pigeal Kumar
Date 24/XI/2015

Issued date of [illegible]
Date 24/11/2015

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TEST REPORT ON BATTERY

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Submitted by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

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Rajesh Kumar
24/11/2015

TEST REPORT
OF
LEAD ACID BATTERY

Sample ID No. 29/15/BT

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Submitted by : M/s A.H. ENTERPRISES, Village BhatoliKalan, PO-Baddi, Tehsil-Nalagarh, Distt.-Solan (H.P.)

S.No	Test Description	Manufacture's Claim	Observations	Remarks
1	(I) Brand/Model (ii) Type (iii) S.No. (iv) Year (v) **Rating** (a) Voltage (b) **Capacity** at C10 discharge rate (vi) Dimension (mm) (vii) Weight before testing (kg)	Altima/6ALS 150 Lead Acid D15G-05-024 2015 12V 150Ah 474x180x385 67Kg	Altima/6ALS 150 Lead Acid D15G-05-024 2015 12V 174Ah 500x190x405 59.28Kg	cut off voltage 10.5 V
2	**Charging Efficiency:** (A) Capacity on discharging at (C 10) constant current continuously up to cut off voltage. (B)Capacity after recharging the battery by **168.3Ah** and then again discharging up to cut off voltage. (C)Efficiency-Ah & Wh		168.3Ah 156.6Ah 93.05% & 87.14%	Average Charging Voltage =12.91V Average discharging voltage =12.09V

Prepared by: Manish
Date 24/11/15

Approved by: Pjeet Kumar
Date 24/11/15

Issued by
Date

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