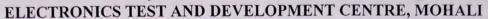
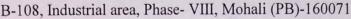


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TEST REPORT

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1. Indentor's Address

. M/s Okaya Power Pvt. Ltd.

D-7, Udyog Nagar, Rohtak Road (Near Peeragarhi Metro Station

New Delhi - 110041

(SRF No. 17, 63 dt. 20. 201

2. Description of item(s)

: SMF / VRLA Battery (12V/65Ah) 2.1 Nomenclature

: Okaya/ OB-65-12 2.2 Make/Model

: Sample No.1 to 6 (Refer remarks 1) 2.3 Sr. No.

: Okaya Power Pvt. Ltd. 2.4 Manufactured by

2.5 Quantity : Six

: 20.02.2018 Sample(s) received on 3.

: Good 4. Condition of sample(s) on receipt

: 22.02.2018 to 20.03.2018 Date(s)/Period item(s) tested 5.

: ETDC Mohali 6. Location where test(s) carried out (With

name and address)

: JIS C 8702 -1: 2009 and Indentor's. Reference of test method(s) used 7.

: JIS C 8702 -1: 2009 and Indentor's. Applicable product specification(s) 8.

Deviation(s), exclusion(s), addition(s) in : Nil 9.

test method(s)

Environmental conditions 10.

 $: 25^{\circ}C \pm 10^{\circ}C$ 10.1 Temperature : 45% to 70% Humidity 10.2

Statement with regard to compliance 11.

: Refer to test results (Test Data)

Statement on uncertainty in 12. measurement

: Not Applicable.

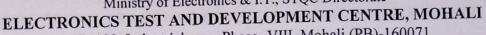
Major Equipment Used

S. no.	Nomenclature	Make	Model	Cal. Validity
1.	Electronic Load	Digitronics	750W	May, 2019
2.	Multimeter (Digital)	Rishabh	15S	April, 2019
3.	Vibration Machine	Sarswati Dynamic	SEV 100	July, 2019
4.	Clamp meter	Meco	3600	Nov, 2018
5.	Measuring Tape	Freemans	15M	Nov, 2018
6.	Weighting Scale	Modern Business	SNEW-100	July, 2019
7.	Stop Watch	Timeter	J-23	Feb, 2019

13.



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Test Stage	Test Requirements (Cl. Ref. of specs.)	Test Condition			Uncertainty (Where applicable)
1. Visual Examination	JIS 8702-1	There shall not be any deformation of body and cracks / corrosion on the terminals of the sample (Sealed Lead Acid Battery).	No defects observed	Pass	
2. Marking			4 2 11 D 1	Degg	
2.1 Polarity JIS-C 8702-2 Positive and negative (Cl. 4.4) (Cl. 6.1) and the sample shall be		Positive and negative terminals of the sample shall be marked with	Positive: (+) with Red colour	Pass	
(CI: 4.4)	JIS 8702-1 (Cl. 4.4)	symbols (+) and (-) respectively.	Negative: (–) with Black colour		
2.2 Designation	JIS 8702-2	The sample shall be marked with			-
(Cl: 4.3)	(Cl. 6.2) and JIS C 8702-1	relevant details: a) Type Designation	SMF / VRLA Battery	Pass	
	(Cl. 4.3)	b) Nominal Voltage (n x 2.0 V)	12V (6x2V)	Pass	
		c) Rated Capacity (20 Hr. rate)	65Ah	Pass	
		d) Manufacturer.	Okaya Power Pvt. Ltd.	Pass	
2.3. Additional	JIS C 8702-1	Following parameters shall be	Sample No Mass(Kg)	-	-
Information	(C1.4.3)	determined in respect of the sample:	1. 22.96 kg		
		a) Mass (Kg)	2. 22.96 kg 3. 22.96 kg		
			4. 22.98 kg		
			5. 23.00 kg		
		Darlington and District	6. 23.06 kg	A Line	
		b) Dimension (LxWxH) (cm)	L:350 mm W: 167 mm H: 180 mm		-
				1/3	other Services
		c) Charging Current / Voltage	Standby Use: 13.5 V to 13.8 V Initial current: 13 A	*ETDC House	साराचेय जनते । 180071 51015
			Cycle use: 14.6 V to 14.8 V		

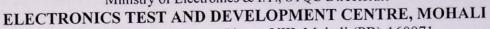
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14. RESULT Test Stage	Test Requirements (Cl. Ref. of specs.)	Test Condition	Test Data	Pass/ Fail (Qty.)	Uncertainty (Where applicable)
3. Classification of Battery	JIS C 8702-2 (Cl. 7)	The sample shall either be Prismatic or Cylindrical.	Prismatic	Pass	
4. Capacity Test (20Hrs.)	JIS C 8702-1 (Cl. 5.1 & 7.1)	The Fully charged sample shall be discharged by at a constant current of $3.25 \text{ A} \pm 2 \text{ \%}$ at an ambient temperature of $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$ till an end point terminal voltage of 10.5V (6 x 1.75V). The capacity shall be 65 Ah or more.	Sample No. Capacity 1 77.2 Ah 2 77.1 Ah 3 77.2 Ah	Pass	
5. High Rate Discharge Test (Sample No.3)	JIS C 8702-1 (Cl. 5.2 & 7.2)	Fully charged sample shall be discharged at a constant current of 65A (20 x I ₂₀) upto an end point terminal voltage of 9.6V (6x1.6V). The discharge duration shall be 27 minutes or more.	Discharge time: 30 minutes	Pass	
6. Resistance to Vibration (Sample No. 1)	JIS C 8702-1 (Cl.7.11)	The sample shall be subjected to the following conditions: Frequency: 16.7Hz Amplitude: 4mm (peak to peak) Duration: 1 Hr continuous Direction: Vertical, Longitudinal and lateral (X, Y & Z) State of sample: Fully charged.	Conducted	Pass	-
		After the above test, there shall not be any deformation, mechanical damage, breaking on the sample	No visual defects deformation, mechanical damage, breaking on the sample observed.	STETIC MODE	mer Services * oreon

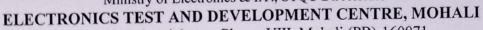
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Test Stage	Test Requirements (Cl. Ref. of specs.)	Test Condition	Test Data	Pass/ Fail (Qty.)	Uncertainty (Where applicable)
7. Resistance to Shock (Sample No. 1)	JIS C 8702-1 (CI 5.12 & 7.12)	The fully charged sample shall be given three falls from a height of 20cm with bottom facing downward on a flat hard wooden plate of 10 mm or more in thickness.	Conducted.	Pass	
		There shall not be any deformation, mechanical damage, breaking on the sample	No visual defects deformation, mechanical damage, breaking on the sample observed.		-
8. Maximum Permissible Current (Sample No.3)	JIS C 8702-1 (Cl. 5.5)	1)Fully charged sample shall be discharged at a constant current 130 A (40 x I ₂₀) for 300sec.	Conducted	Pass	-
		After the discharge, sample shall be recharged and it shall be discharged at a constant current of 130A (40*(I ₂₀)) upto an end point terminal voltage of 8.04 V (6*1.34 V). The discharge duration shall not be less than 150 sec	921 sec		
9. Storage Characteristics (Sample No. 3)	JIS C 8702-1 (Cl. 5.4 & 7.4)	Fully charged sample shall be stored for 120 days. After the period, the capacity test shall be performed at a constant discharge current of 3.25 A (I ₂₀) upto an end point terminal voltage of 10.5V. The capacity shall not be less than 75% of the rated capacity		Pass	- 0.3 × ales

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14	RESIII	TS	SIIN	MMA	RISED:
14.	LESUL	110	DUL		TILLIDID.

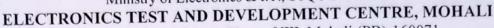
Test Stage	Test Requirements (Cl. Ref. of specs.)	Test Condition	Test Data	Pass/ Fail (Qty.)	Uncertainty (Where applicable)
10. Capacity Test after Charge Acceptance, after Deep Discharge (Sample No.3)	JIS C 8702- 1 Cl. 5.6	A suitable load resistor which can draw a current of 130A±10% (40 x I20) shall be connected across the fully charged sample and it shall be stored for 360Hrs. After the storage period, the load resistor shall be disconnected from the sample and sample shall be recharged at constant voltage (UC) as per 6.1A for a period of 48Hrs with Initial charging current between 26A (6 x I ₂₀ to 10 x I ₂₀). After the charging period, the sample shall remain open circuited for 5 to 24Hrs and then shall be discharged at 3.25A (C ₂₀). The observed capacity of the sample shall not be less than 75%	Capacity: 117%	Pass	
11. Gas Recombination Characteristics	JIS C 8702- 1:2009 Cl. 5.10 &7.9	of the rated capacity. The sample shall be tested as under- State of Battery: Fully Charged Charging condition: Battery shall be charged continuously at a constant current of 2xI ₂₀ for 48 Hrs. A gas collecting device shall be installed as specified and within one hour of completion of charging	Efficiency of Gas Recombination: 99.3%	Pass	-
		as above, the battery shall be charged at a constant current of 0.1 x I ₂₀ continuously Immediately after lapse of 24 h from current passing, collection o gas shall be started. Duration of gas collection: 05 Hrs	r f	Comer S	or the second

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15. Additional Remarks:

1. Serial Number of the samples-

Sample No	Serial No
1	IAAHS03201051723
2	IAAHS03201051724
3	IAAHS03201051726
4	IAAHS03201051727
5	IAAHS03201051728
6	IAAHS03201051729

- 2. Device Under Test (DUT) photograph enclosed as Annexure-1.
- 3. This report superseded to earlier issue interim report.

Costomer 2 outs

Tested by

John

Approved by

जनदीश कुनार/JAGDISH KUMAR वैश्वानिक 'शि'/Scientist D' संचार एवं सूचना प्रोद्योगियी नंत्रासय

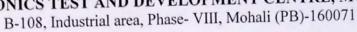
पंचार पर्व तृष्टात प्रोधीयेवने संदालय श्रिमांत्रपर्व तृष्टाचा प्रोधीयेवने संदालय Ministry of Comm. के Info, Technology भारत तरकार, एसटीरच्यूची अयोगटोरेट, ईंटीबीजी, गो**ग्रस्त (पंचाय)** Govt of India, STQC Directorate Centre, ETDC, Mohali (Pb.) Issued by

विनय राजपूत VINAY RAJPUT वैज्ञानिक 'सी' / Scientist 'C' संचार एवं सूचना प्रौद्योगिकी मंत्रालय Ministry of Comm. & Info. Tech भारत सरकार, इटीडीसी मोहाल Govt. of India, ETDC, Mohali (Pb.)



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Annexure-I



Figure-I







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