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**CSIR - Central Electrochemical Research Institute**

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**CSIR-Battery Performance Testing and Evaluation Centre**

☎ 04565-241423 ✉ director@cecni.res.in 🌐 www.cecni.res.in

Dated: 28.09.2022	Report No: CSIRBPTEC/Mesha/060/01/2022	Customer Specification
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Manufacturer	:	Mesha Energy Solutions Pvt. Ltd., Yeshvanthpur, Bangalore Bangalore -560022	
Test item	:	12 V 200 Ah Tubular power battery with META incorporated	
Identification	:	NA	Serial No : NA
Receipt No.:	NA	Date of receipt :	05.04.2022
Testing laboratory and its address:	Battery Performance Testing and Evaluation Centre CSIR-Central Electrochemical Research Institute Karaikudi 630 003, Tamilnadu. India		
Test specification:	<b>Customer specification</b>		
Test Result:	The test item passed / failed the test specification(s).		
Other Aspects:	Nil		
<i>This test report relates to the test sample submitted.</i>			

Tested by:	Approved by / Authorized Signatory:	Issued by:
P. Seenichamy	Sundar Mayavan	Sundar Mayavan
Date:	Date:	Date:











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Power Battery Test Conditions: 12V, 200Ah Tubular Power Battery

**I. Capacity test: Charging Mode: CCCV**

S.No.	Charging current (A)	Charging Voltage (V)	Charging Duration (h)	Charge Input (Ah)	Discharge current (A)	Discharge cut-off voltage (V)	Discharge capacity (Ah)
1.	20 (C/10)	14.8	15	239.27	20 (C/10)	10.5	189.28
	20	14.8	15	225	40 (C/5)	10.5	164.87
	20	14.8	15	203	100 (C/2)	10.5	109
	20	14.8	15	196	200 (1C)	10.5	43
	20	14.8	15	91.3	400 (2C)	10.5	-
2.	65 (C/3)	14.8	4	10.34	20 (C/10)	10.5	191.23
	65	14.8	4	201	40 (C/5)	10.5	174.24
	65	14.8	4	192	100 (C/2)	10.5	123.55
	65	14.8	4	147	200 (1C)	10.5	53.67
	65	14.8	4	77.61	400 (2C)	10.5	-
3.	100 (C/2)	14.8	3	7.01	20 (C/10)	10.5	189.9
	100	14.8	3	196.86	40 (C/5)	10.5	174.58
	100	14.8	3	191.98	100 (C/2)	10.5	128.41
	100	14.8	3	152.6	200 (1C)	10.5	57.67
	100	14.8	3	81.55	400 (2C)	10.5	-
4.	150(0.75C)	14.8	2	12.78	20 (C/10)	10.5	186.63
	150	14.8	2	177.5	40 (C/5)	10.5	169.17
	150	14.8	2	162.62	100 (C/2)	10.5	114.38
	150	14.8	2	134.95	200 (1C)	10.5	55.68
	150	14.8	2	91.26	400 (2C)	10.5	-
5.	200 (1C)	14.8	1½	9.2	20 (C/10)	10.5	179.54
	200	14.8	1½	154.33	40 (C/5)	10.5	155.99
	200	14.8	1½	152.82	100 (C/2)	10.5	111.80
	200	14.8	1½	132.16	200 (1C)	10.5	55.91
	200	14.8	1½	90.64	400 (2C)	10.5	-

**NOTE:** S. No. 1 to 7 Indicate the charging current (charging rate), charging voltage, charging duration, charge input, discharge current, discharge cut-off voltage and corresponding discharge capacity. Keeping the charging current constant as given in Column no.2, the discharge current was varied from C/10 to 2C as mentioned in Column 6.

A break of 15min. was given after every charge and discharge.



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Customer Specification

-----END OF THE TEST REPORT-----