

INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY

[A Division of NATRiP Implementation Society (NATIS), Govt. of India]

TEST REPORT

Non-Transferable

Test Report No.: CT0GP8233

Date: 16.09.2020




- 1.0 **NAME AND ADDRESS OF THE CUSTOMER** : M/s. Okaya Power Private Limited
H-19, Udyog Nagar, Rohtak Road -110041
New Delhi INDIA
- 1.1 **NAME AND ADDRESS OF THE MANUFACTURER** : Same as serial No. 1.0
- 2.0 **CUSTOMER LETTER REF.** : CCTNOKYAPHEEL106946 Dated 14-July-2020

3.0 **DESCRIPTION OF DEVICE UNDER TEST (DUT):**

DUT Name	Battery Pack, 51.2V
Battery Type	Lithium Battery
Battery Capacity(Ah)	100AH (Ah in 3 hrs)
Rated Voltage	51.2V DC
Id/Model No.	LF51100E
Quantity	01 No. of Battery Pack (ICAT/EEL/106946/01)
Trade Name	OKAYA



- 4.0 **DATE OF RECEIPT OF SAMPLE** : 03.09.2020
- 5.0 **CONDITION OF SAMPLE**: No physical damage observed.
- 6.0 **TEST OBJECTIVE**:
To validate the Performance Requirements of Traction Battery as per ISO 12405-4:2018(E) as amended upto date.
- 7.0 **TEST METHOD**: Test method referred from ISO 12405-4:2018(E) as amended upto date.
- 8.0 **ANY DEVIATION FROM TEST METHOD**: No
- 9.0 **FUNCTIONAL VERIFICATION**: Functional verification done and battery was found satisfactory.
- 10.0 **CONCLUSION**:
The battery specified in Sr.No.3.0 of this test report met all the test requirements when tested as per ISO 12405-4:2018(E) amended upto date as mentioned in Annexure-I of this report.
- 11.0 **TEST DESCRIPTION**: Please refer the Annexure-I of this report.
- 12.0 **DATE OF PERFORMANCE OF TEST**: Please refer the Annexure-I of this report.
- 13.0 **TEST RESULTS**: Please refer the Test requirements and Results in Annexure-I of this report.
- 14.0 **LOCATION OF TEST**: ICAT CENTRE-I

Prepared By	Checked By	Approved By
		
UDIT KAUL Dy. Manager	MAHENDAR PAL Asst. General Manager	PAMELA TIKKU Sr. General Manager






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Prepared By		Checked By	
			
UDIT KAUL Dy. Manager		MAHENDAR PAL Asst. General Manager	Page 02 of 03 [106946]




Test Report No.: CT 0 G P 8 2 3 3

Date: 16.09.2020

Annexure – I

1.0 TEST REQUIREMENTS AND RESULTS:

1.0	Test Specification	
1.1	Test Details	To measure Energy Content of the battery pack
1.2	Reference Standard	ISO 12405-4:2018(E)
1.3	Test Date	08.09.2020 to 14.09.2019.
2.0	Preparation of battery pack: <ol style="list-style-type: none"> The battery pack was physically inspected for normal functionality and interface with the battery cycler. Test equipment was programmed to operate within safe operating limits as per the specification of the battery pack. Active over current protection device was enabled. Test environment was conditioned to RT i.e. (25 ± 2) ° C. 	
3.0	Test Procedure: <ol style="list-style-type: none"> Three continuous pre-conditioning cycles were performed, with charging as per manufacturer recommendation* (Not more than 8 hours) and discharge by C/3 rate after sufficient rest period for thermal equilibrium. Standard charge (SCH) on the battery pack followed by 60 min rest period was performed. Standard cycle (SC) consisting of Standard discharge (SDCH) and Standard charge(SCH) were performed. The battery pack was discharged at C/3 rate to determine Energy content in KWh. <p>*Note: As per manufacturer's recommendation vehicle charger was used to charge the battery pack.</p>	
4.0	Test Equipment	
4.1	Battery Pack Cycler: Regenerative Charge and Discharge Tester ID:ICAT/EEL/BC/P/03	
5.0	Manufacturer declared energy content of the battery = 5.120 KWh (C/3)	
6.0	The measured C/3 battery energy is 5.0685 kWh	
7.0	Test Results: The measured energy content 5.0685 kWh is within ±5% of the declared energy content of the battery, hence manufacturer declared value of 5.120 KWh is taken as rated energy content of the battery.	

Prepared By		Checked By	
			
UDIT KAUL Dy. Manager		MAHENDAR PAL Asst. General Manager	Page 03 of 03 [106946]