ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION
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TEST REPORT

NAME & ADDRESS OF CUSTOMER	REPORT NO. : RP-1617-003385 DATE : 23.04.2016
M/s. VOLTECH MANUFACTURING COMPANY LIMITED. NO.2/431-B, SRI KUMARAN NAGAR, KUNDRATHUR, CHENNAI - 600128.	CUSTOMER REF. NO.: Letter dtd.18.04.2016 and E mail dtd. 23.04.2016
	DATE OF SAMPLE RECEIPT: ----- / DATE OF TESTING: 22.04.2016

SAMPLE DESCRIPTION	SAMPLE IDENTIFICATION
220V 100A FLOAT CUM BOOST BATTERY CHARGER Input voltage: 415±10% AC.V & 50 Hz±5% frequency variation, 3-phase, 3-wire system, Output voltage : nominal voltage : 220V DC, float voltage :247, boost voltage : 255V DC, DC current : 100A, Type: SCR-Full wave Fully controlled, No. of Pulse : SCR Thyristor – 6 Pulse, Regulation:≤1%@±10% input voltage, ±5% frequency with 0 to 100% load variations, Efficiency: ≥ 80% @ full load, Ripple:≤2% @ Full load (Without connecting battery), Cooling : Air Natural, Insulation : Class F, IP Protection :IP 42, Serial No.: VMC-04-16-FCBC-341.	WO-1617-000880-1

TEST DETAILS	TEST SPECIFICATION
1. Voltage Regulation.	As per customer's requirement
2. Ripple factor (With resistive load)	As per customer's requirement.
3. Efficiency test (At full load)	As per customer's requirement.

ENCLOSURES : Photograph Nos.: WO-1617-000880/1 to 3.
REMARKS : As per attached sheet.

PREPARED BY **CHECKED BY** **APPROVED BY**
(Gautam Brahmbhatt)

Note : 1. This report relates only to the particular sample received for testing in good condition at M/s. Voltech Manufacturing company Limited., Chennai.
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Sr. No.	Particulars of test and clause no.	Requirement as per specification.	Obtained value	Remarks
1.	Voltage Regulation. [As per customer's requirement]	Less than 1% @ ±10% input voltage with 0 to 100% load variations. [Declared by customer]	0.68%	Conforms
2.	Ripple factor (With resistive load) [As per customer's requirement]	Less than 2% with resistive load. [Declared by customer]	0.58%	Conforms
3.	Efficiency test (At full load) [As per customer's requirement]	≥ 80% at full load [Declared by customer]	82.0%	Conforms

Note: The detail of measurement data for above three tests as per sr. no. 1 to 3 is given in Table 1, Table 2 and Table 3 respectively at Page 3 of 3.

Master Equipment and Calibration Details traceable to NPL (National Physical Laboratory), New Delhi.

Sr. No.	Test Equipment	ERDA SR. NO.	Calibration status (Valid up to)
1	6 1/2 Digit Multimeter	8108	12.10.2016
2	Clamp On Power meter	7140	03.12.2016
3	Clamp On tester	10204	09.01.2017

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Table 1 [Regulation]

Sr. No.	AC INPUT VOLTAGE (V)			DC OUTPUT VOLTAGE (V)	OUTPUT CURRENT (A)	REGULATION (%)
	RY	YB	BR			
	BOOST VOLTAGE 255V @ -10% INPUT VOLTAGE					
1	373.5	376.8	378.0	255.17	0.0 0	**0.68 %**
2	372.1	376.8	377.0	253.45	100.0	
	BOOST VOLTAGE 255V @ NOMINAL INPUT VOLTAGE					
3	413.0	417.6	417.3	255.26	0.0 0	0.08 %
4	412.2	418.2	417.8	255.05	100.0	
	BOOST VOLTAGE 255V @ +10% INPUT VOLTAGE					
5	453.5	457.8	458.3	255.02	0.0 0	0.05 %
6	442.7	448.9	448.2	254.90	100.0	

Table 2 [Ripple]

Peak to Peak voltage (V Pk-Pk)	DC voltage at Full Load (V DC)	Ripple factor (%)
4.218 V	254.95	**0.58 %**

Table 3 [Efficiency]

AC Input Voltage (V)		AC Input Current (A)		Input Power (W)	DC Output Voltage (V)	DC Output Current (A)	DC Output Power (W)	Efficiency (%)
RY	411.9	**R**	65.3	31101.0	255.13	100.0	25513.0	**82.0**
YB	419.1	**Y**	61.2					
BR	418.4	**B**	58.1					

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