



ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)

ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, India.

EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33

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TEST REPORT

Sheet: 1 of 3

NAME AND ADDRESS OF CUSTOMER MUTECH ENGINEERS 437/2, G.I.D.C., MAKARPURA INDUSTRIAL ESTATE, VADODARA-390 010	TEST REPORT NO. : LIPS/554 DATE : 05/02/2013	
SAMPLE DESCRIPTION CONTROL PANEL Containing: Terminal, Fuse, Fuse holder, LED lamp, Selector switch, Handle	CUSTOMER REF. NO.:	DATE
	2914	29/01/2013
	DATE OF SAMPLE RECEIPT	DATE OF TESTING
TEST DETAILS 1.0 IP 54 tests Enclosures: i) Photograph No.: 109163/1 ii) Drg. No.: 2012/ME013-0/1 to 138/1 (Rev.0) (sheet 1 of 1) (Total 1 sheet) Test Witnessed by: Mr. Jignesh Waghela of M/s. Mutech Engineers, Vadodara. Remarks: Sample conforms to the requirement of IP 54 tests as per the standard.	29/01/2013 30/01/2013 to 31/01/2013	
	SAMPLE IDENTIFICATION ERDA sample code No. : LSGWO0109163/01 Drg. No.: 2012/ME013-0/1 to 138/1 (Rev.0) (sheet 1 of 1) (Total 1 sheet) Sr.No.: 2012/ME 013-0/1	
	TEST SPECIFICATION IS/IEC 60529:2001	
Prepared by	Checked by	Approved by

- Note:**
1. This report relates only to the particular sample received for testing in good condition at ERDA.
 2. This report cannot be reproduced in part under any circumstances.
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 4. Only the tests asked for by the customer have been carried out.
 5. In case of any dispute, Vadodara will be the exclusive jurisdiction & shall be construed as where the cause has arisen.

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TEST RESULTS

IP 54 tests: (Protection against ingress of dust and protection against splashing water as per IS/IEC 60529:2001)

1.0 IP 5X Test:

1.1 Before IP 5X Test

The following tests were carried out.

a) Insulation resistance test

The insulation resistance was measured using 500V DC source between all live parts connected together and the body. The measured value was more than 200 M Ohm.

b) High voltage test

The sample was subjected to test voltage of 2.5 kV (RMS) (As specified by the customer) at 50 Hz for one minute between all live parts connected together and the body. The unit withstood the test voltage.

1.2 IP 5X Test: (Protection against ingress of dust as per Cl. No. 13.4 & 13.5.2 of IS/IEC 60529:2001)

The sample was kept as in normal use inside the test chamber. The required amount of talcum powder was maintained in suspension throughout the test. The pressure inside the enclosure was maintained to 200 mm column of water below atmosphere. The test was continued for 8 hrs.

1.2.1 After the test, the following observation was made.

- i) Negligible amount of dust was found inside the enclosure such as it does not affect to correct operation of the equipment.

Amal K. S.
Prepared by

G/S
Checked by

1109628



Certificate No. : T-0071

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1.3 After IP 5X Test

The following tests were carried out.

- a) Insulation resistance using 500 V DC source measured as in Sr. No. 1.1.a) and the measured value was more than 200 M Ohm.
- b) The high voltage withstand test as in Sr. No. 1.1.b) was done at 80% of the test voltage for one minute. The sample withstood the test voltage.

2.0 IP X4 Test: (Protection against splashing water as per Cl. No. 14.2.3 & 14.3 of IS/IEC 60529:2001)

The sample was kept as in normal use. The sample was subjected to water splashing test. The water was splashed on the sample at a delivery rate of 10 l/min from all practicable directions. The distance between nozzle and equipment was maintained approximately 300 mm to 500 mm. The test was continued for 5 minutes.

2.1 After the test, following observation was made.

- i) No water was found inside the enclosure.

2.2 After IP X4 Test

The following tests were carried out.

- a) Insulation resistance using 500V DC source was measured as in Sr.No.1.1.a) and the measured value was more than 200M Ohm.
- b) The high voltage withstand test as in Sr. No. 1.1.b) was done at 80% of the test voltage for one minute. The sample withstood the test voltage.

Amthasa

Prepared by

Qab

Checked by

1109608



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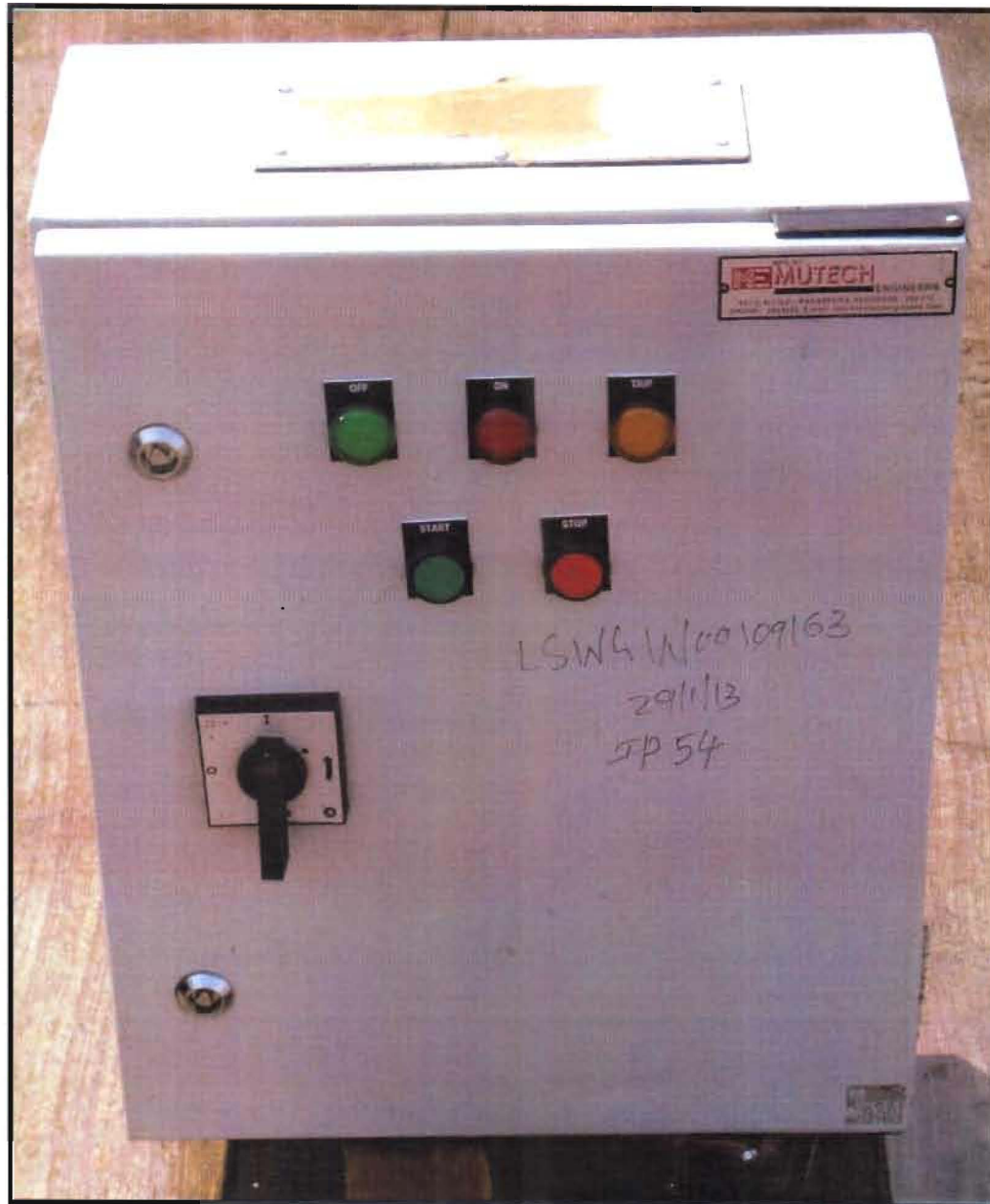
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Photograph No.: 109163/1

CONTROL PANEL

Amrutesh

