ELECTRONICS REGIONAL TEST LABORATORY (WEST) MINISTRY OF COMMUNICATIONS AND INFORMATION TECHNOLOGY (STQC DTE) SUBJECT: EMC TESTING ON ACTIVE POWER TRANSDUCER 7 DEC 2005 1 4

1. SCOPE

1.4

1.5

1.6

1.1 Service Request No :

ERTL (W)/2005 / 20051975

1.1.1 Service Request finalised on :

Test specifications

Test Equipment used:

10-NOV-2005

1.2 Requested by :
(Name and address of manufacturer)

MECO INSTRUMENTS PVT.LTD. 301, BHARAT INDL.ESTATE, T.J.ROAD,SEWAREE, MUMBAI – 400 015

1.3 Item Description Qty Manufacturer Type No. Sr. No.
No.

1. ACTIVE POWER 01 MECO INSTRUMENTS WT 33 055494

TRANSDUCER PVT.LTD.

IEC 61000-4-12 :2000.

WT 33 055494

Laboratory Ambient 1. Temp : 25 ± 2 ° C 2. Humidity : 55 ± 5%

Test generator (Schaffner NSG 505 HF)
 Coupling network (Schaffner NSG 523)

 Coupling network (Schaffner NSG 523)
 Interference voltage distributor accessory (Schaffner)



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2.0 Equipment Under test (EUT) Description:

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2.1 ACTIVE POWER TRANSDUCER finds application in industrial use.

2.2 Performance Function of Equipment under Test (EUT)

- Connect 230 V AC / 50 Hz single phase supply to Aux terminal.
- Apply input voltage 0 110 VAC on terminal R, Y & B.
- Apply input current 0 5 Amp. on terminals k & I.
- Connect 0 500 ohms load resistor to output terminals.
- Measure output current on output terminals, it is between 4 20mA.

2.3 Functional check for all immunity tests.

Performance Criteria- 'A'

The EUT shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed.

Performance Criteria - 'B'

The EUT shall continue to operate as intended during and after the test. During the test, degradation of performance is however allowed. No change of actual operating state or stored data is allowed.

Performance Criteria - 'C'

Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.



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3.0 Test Results:

3.1 HIGH FREQUENCY DISTURBANCE.

Test Rationale:

To check oscillatory wave immunity requirements for Electrical/Electronic equipment connected to low voltage power supply.

a Test Condition:

Specification

As per IEC 61000-4-12.

Set-up

As per IEC 61000-4-12.

Mode of simulation:

Transverse (Differential mode): 1 kV peak

Frequency:

1MHz Damped Oscillatory

Test level

3

Duration:

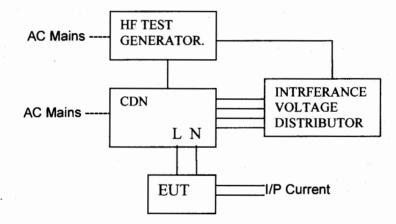
2 seconds

Application:

On Aux. Terminal 230VAC main supply through CDN.

b EUT in normal operating condition.

c Test procedure:



d Requirement:

Performance Criterion B, temporary degradation or loss of function is allowed during the test. After the test EUT shall function normal.

e Observations

Output of the EUT was found fluctuating during the test which was self recoverable and after the test it was functioning normal as per sr. no.2.2.

Results

f

Complied (Meets Performance Criterion B)



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4.0 General Remarks: Testing was carried out on 2/12/ 2005 at ERTL(W), MUMBAI

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