सत्यमेव जयते

वैद्युतिक मापन उपयंत्र अभिकल्प संस्थान, मुंबई
INSTITUTE FOR DESIGN OF ELECTRICAL MEASURING INSTRUMENTS, MUMBAI
MSME TECHNOLOGY CENTRE

IDEMI

संदर्भ सं / Ref. No.: WO/ETL/032/25-26

दिनांक : Date : 02.07.2025

M/s. SELEC CONTROLS PVT. LTD.,
EL-27/1, ELECTRONIC ZONE,
TTC INDUSTRIAL AREA, MAHAPE,
NAVI-MUMBAI
MAHARASHTRA, INDIA

Kind Attn: **Mr. Karan Rawlani**

विषय : परीक्षण रिपोर्ट

Sub : **Test Report**

महोदय,

आपके उपकरणों / अवयवो पर किये हुये परीक्षण रिपोर्ट संख्या (**TR/ETL/084/25-26**) आपको जानकारी के लिए पत्र के साथ भेज रहे है । यदि आपको परीक्षित मदों पर स्पष्टीकरण की कोई आवश्यकता हो तो, कृपया परीक्षण रिपोर्ट जारी करने वाले प्राधिकारी को हमारे संदर्भ संख्या और तारीख का उल्लेख करते हुए, रिपोर्ट प्राप्त होने पर चार सप्ताह के अंदर सम्पर्क करें अथवा लिखे। हम इस पत्र के साथ फीडबॅक फॉर्म भेज रहे है । कृपया उसे भरके प्रधान निदेशक, वैमाउअसं मुंबई को भेजे ।

Dear Sir,

Test Report No.(**TR/ETL/084/25-26**) of your instruments / components / Equipments are / is enclosed herewith for your information. If you need any clarification on Test Report, please write / contact to Test Report issuing officer quoting our reference number and date within four weeks from the date of receipt of this report. We are also enclosing here with the feedback form. Kindly fill up and send to the Principal Director of IDEMI Mumbai.

धन्यवाद !
Thanking You,

भवदीय
Yours Faithfully

संलग्न पत्रानुसार
Encl. As Above

प्रधान निदेशक
PRINCIPAL DIRECTOR

सत्यमेव जयते

TEST REPORT

TC-5538

Accreditation Field : Electrical Testing
Group : Environmental Testing Facility
NABL Accreditation No.: TC-5538
Accreditation Valid Up to: 23.04.2026
Date of Receipt: 07.05.2025
ULR No : TC553825000000204F

Work Order No. : WO/ETL/032/25-26
Date : 07.05.2025
Test Report No. : TR/ETL/084/25-26
Date of Testing : 02.06.2025 to 11.06.2025
Date of issue : 02.07.2025

Test Item : Timer

Tested for : M/s. Selec Controls Pvt. Ltd.,
EL-27/1, Electronic Zone, TTC Industrial Area, Mahape, Navi-Mumbai – 400 710,
Maharashtra, India

Tested at : IDEMI MUMBAI

Specification of Items Under Test	Specification of Standards Used
Manufacturer: M/s. Selec Control Pvt. Ltd., Condition of Item on Receipt: Good Range / Rating: V : 12 – 240V DC 20 – 240V AC, 50/60Hz T : 0.1s – 3h VA : 3.2VA max Model No.: 600XU-A-1-CU Sr. No.: S#2503T005071700208	1 Vibration/Shock Test System i. Digital Vibration Controller Model No.: SPARK USB, Sr. no.: 10652 Calibration Validity: May 2026 ii. Charge Accelerometer Model No.: 357BO3, Sr. no.: 28580 Calibration Validity: Jan 2026 Traceability: Standard used are traceable to National / International Standards

Ambient Conditions :

Temperature: 28ºC ± 2ºC Relative Humidity: < 75% Atmospheric Pressure: 1008 to1009mbar

Remarks: Please refer page 3 to 7 for Test Results.

1) Test Specification: The above mentioned item is tested for

1. **Functional Random Vibration Test**
2. **Random Vibration Test (Simulated Long Life Test)**
3. **Shock Test**

as per IEC 61373 : 2010 & as per customer requirement

C. M. PATIL
TECHNICAL MANAGER
REVIEWED & AUTHORISED SIGNATORY

Note : This test reports only to the particulars item(s), submitted for testing. The test reports should not be reproduced except in full without the prior permission from the Principal Director, IDEMI, Mumbai. This test report is signed by authorized signatory approved by NABL.

ELECTRICAL TESTING LABORATORY

Model No.: 600XU-A-1-CU
Sr. No.: S#2503T005071700208
Date of Testing : 02.06.2025 to 11.06.2025

ULR No.: TC553825000000204F
Test Report No.: TR/ETL/084/25-26

DISCIPLINE : Electrical
GROUP : Environmental Testing Facility

1. EQUIPMENT UNDER TEST (EUT)

1.1 Brief Description (Declared by Mfg.)

Basic function :
600XU is a multifunction timer offering 13 different operating modes, including on-delay, interval, cyclic modes (with both OFF and ON first options), pulse output, delay on break, delay on make/break, interval after break, single shot, retrigger able single shot, latching relay, delay on make with totalize, and interval with totalize.

Feature:
- Power Supply: 20-230V AC / 12-230V DC
- Output Contacts: 1 C/O (changeover relay contact)
- Contact Rating: Typically 5A @ 250V AC resistive
- Display: LED indication for power and relay status
- Mounting Type: DIN rail mountable
- Housing: Compact enclosure, suitable for panel use
- Accuracy: High timing accuracy with repeatability

Uses and Application:
- Time Delay Control.
- Sequential Operation.
- Automatic Cyclic Control.
- Protection Timing.

1.2 Functional / performance test before & after the test

The EUT shall not get any mechanical damage or any degradation in the performance of the EUT.

DURGESH AMBEKAR
DY. TECHNICAL MANAGER
TESTED BY

C. M. PATIL
TECHNICAL MANAGER
CHECKED BY

TC-5538

ELECTRICAL TESTING LABORATORY

Model No.: 600XU-A-1-CU
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2. FUNCTIONAL RANDOM VIBRATION TEST

a. Test Rationale:

The functional random test levels are the minimum test levels to be applied in order to demonstrate that the equipment under test is capable of functioning when subjected to conditions which are likely to occur in service, on railway vehicles.

b. Test Condition:

Test method	:	IEC 61373:2010 (Category 1, Class B)
Frequency	:	5 – 150 Hz
Acceleration	:	Vertical : 1.01 m/s^2
		Transverse : 0.45 m/s^2
		Longitudinal : 0.70 m/s^2
Direction	:	X, Y, Z axis
Duration	:	10 mins. at each axis
EUT Condition	:	EUT Energized condition with 240V AC 50Hz

c. Requirements:

The EUT shall not get any mechanical damage or any degradation in the performance of the EUT.

d. Observation:

No mechanical damage or any degradation was observed during & after the test. The performance of the EUT was found to be satisfactory after the test.

e. Result:

Complied

DURGESH AMBEKAR
DY. TECHNICAL MANAGER
TESTED BY

C. M. PATIL
TECHNICAL MANAGER
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ELECTRICAL TESTING LABORATORY

Model No.: 600XU-A-1-CU
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3. RANDOM VIBRATION TEST (SIMULATED LONG LIFE TEST)

a. Test Rationale:

This test is aimed at establishing the mechanical integrity of the equipment at increased service levels.

b. Test Condition:

Test method	:	IEC 61373 : 2010 (Category 1, Class B)
Frequency	:	5 – 150 Hz
Acceleration	:	Vertical : 5.72 m/s^2 Transverse : 2.55 m/s^2 Longitudinal : 3.96 m/s^2
Direction	:	X, Y, Z axis
Duration	:	5 Hrs. at each axis
EUT Condition	:	EUT in de-energized Condition

c. Requirements:

The EUT shall not get any mechanical damage or any degradation in the performance of the EUT.

d. Observation:

No mechanical damage or any degradation was observed during & after the test. The performance of the EUT was found to be satisfactory after the test.

e. Result:

Complied

DURGESH AMBEKAR
DY. TECHNICAL MANAGER
TESTED BY

C. M. PATIL
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ELECTRICAL TESTING LABORATORY

Model No.: 600XU-A-1-CU
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Test Report No.: TR/ETL/084/25-26

4. SHOCK TEST

a. Test Rationale:

To determining the ability of a specimen to withstand specified severities of non-repetitive or repetitive shocks

b. Test Condition:

Test method	:	IEC 61373:2010 (Category 1, Class B)
Waveform	:	Half Sine
Acceleration	:	Vertical : 30.0 m/s^2 Transverse : 30.0 m/s^2 Longitudinal : 50.0 m/s^2
Pulse Width	:	30 ms
No of Shock	:	± 3 per Axis
Direction	:	X, Y, Z axis
EUT Condition	:	EUT in De-energized condition

c. Requirements:

The EUT shall not get any mechanical damage or any degradation in the performance of the EUT.

d. Observation:

No mechanical damage or any degradation was observed during & after the test. The performance of the EUT was found to be satisfactory after the test.

e. Result:

Complied

DURGESH AMBEKAR
DY. TECHNICAL MANAGER
TESTED BY

C. M. PATIL
TECHNICAL MANAGER
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ELECTRICAL TESTING LABORATORY

Model No.: 600XU-A-1-CU
Sr. No.: S#2503T005071700208
Date of Testing : 02.06.2025 to 11.06.2025

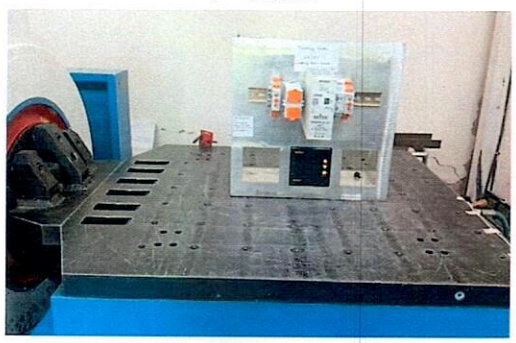
ULR No.: TC553825000000204F
Test Report No.: TR/ETL/084/25-26

Test setup Photograph

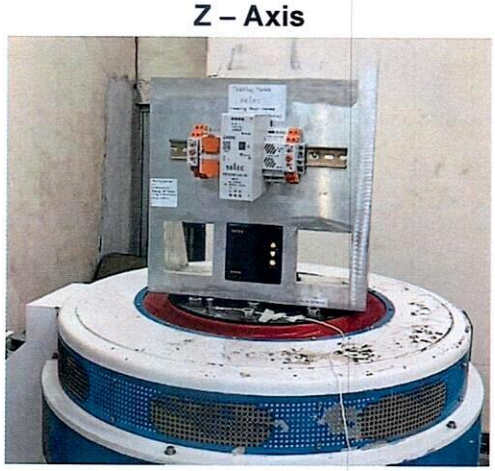
X – Axis



Y – Axis



Z – Axis



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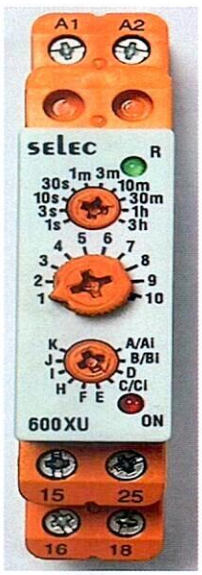
TC-5538

ELECTRICAL TESTING LABORATORY

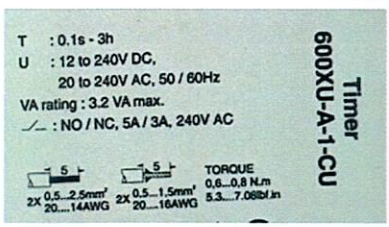
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Date of Testing : 02.06.2025 to 11.06.2025

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EUT Photographs



Marking Plate





***** END OF TEST REPORT *****

DURGESH AMBEKAR
DY. TECHNICAL MANAGER
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