

**31 May 2024**

**Chennai**

Sub: Withdrawal of the standard by MTD 21 / Non-Destructive Testing Sectional Committee of Metallurgical Engineering Department (MTD)

Ref: [ISO/WD 5750 - Non-destructive testing — Infrared thermography — Electrical equipment testing](#) – withdrawn.

**IS 16168: 2014, GUIDELINES FOR INFRARED THERMOGRAPHY INSPECTION OF ELECTRICAL INSTALLATIONS**

The standard misguides the industry. Thermography is neither accepted not considered as a reliable measure for inspection or verification of LOW VOLTAGE electrical installation (except Solar PV modules).

ISO [ISO/WD 5750 - Non-destructive testing — Infrared thermography — Electrical equipment testing](#) also withdrawn the draft proposal.

IEC 60364, which guides safety of Low voltage electrical installation didn't considered thermography as a reliable safety measure for electrical installation. Similarly, IS732 and NEC 2023 (SP30).

IS16168 misguides the users and is the reason for fire accidents in several critical buildings. Since the users doesn't consider recommendations of NEC 2023 & IS732, and use Thermography.

Myself as a faculty in NITS capsule course is often facing this question from participants.

Hence the standard to be withdrawn.

Thanks, and regards

S Gopa Kumar

Member ETD 20, ETD 30, ETD 50

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Content from E mail dt feb 2, 2024

**From:** Gopa Kumar S  
**Sent:** Friday, February 2, 2024 7:26 AM  
**To:** Rajeev Sharma Dy DG BIS <rajeev@bis.gov.in>  
**Subject:** Dispute in the technical subject and standard IS 16168 : 2014

Dear Sir

We would like to bring the conflict in the subject in IS 16168: 2014: Guidelines for Infrared Thermography Inspection of Electrical Installations.

As you are aware IEC 60364 didn't recognise Thermography as a reliable measure to ensure safety in LOW VOLTAGE ELECTRICAL INSTALLATION. The recommended practice in IEC 60364-6 has been adopted in IS732 & NEC 2023, These standards require 18 subjects of inspection and 19 tests as a part of verification in LV electrical installation to make them safe.

However IS 16168 is on a different subject and claim "Inspection of Electrical Installations" and is in conflict with IS732 / NEC 2023.

The referred standard IS 16168: 2014 diverts the seriousness of the safety subjects included in IS732 & NEC 2023. Several users believe that "THERMOGRAPHY as per IS 16168 : 2014" is the best and the alternate method of verification in LV installation and endanger the complete installation.

Hence, we request you to withdraw the standard as quickly as possible, or

Remove "Inspection of Electrical Installations" from the name of the standard and its contents. The FOREWORD and SCOPE shall include "THERMOGRAPHY IS NOT A RECOGNISED SAFETY MEASURE IN LOW VOLTAGE ELECTRICAL INSTALLATION".

Thanking you and awaiting your reply

Best Regards

S Gopa Kumar