



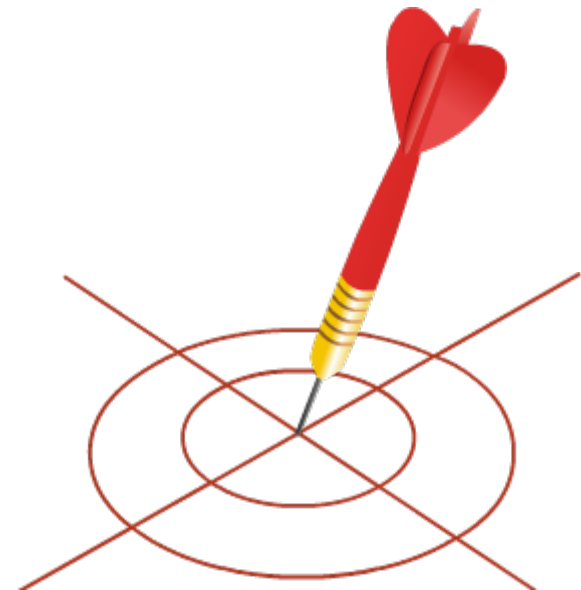
**Welcome to the Session on
Low Tension Current
Transformer (LTCT) Energy
Meters**

Learning Objective

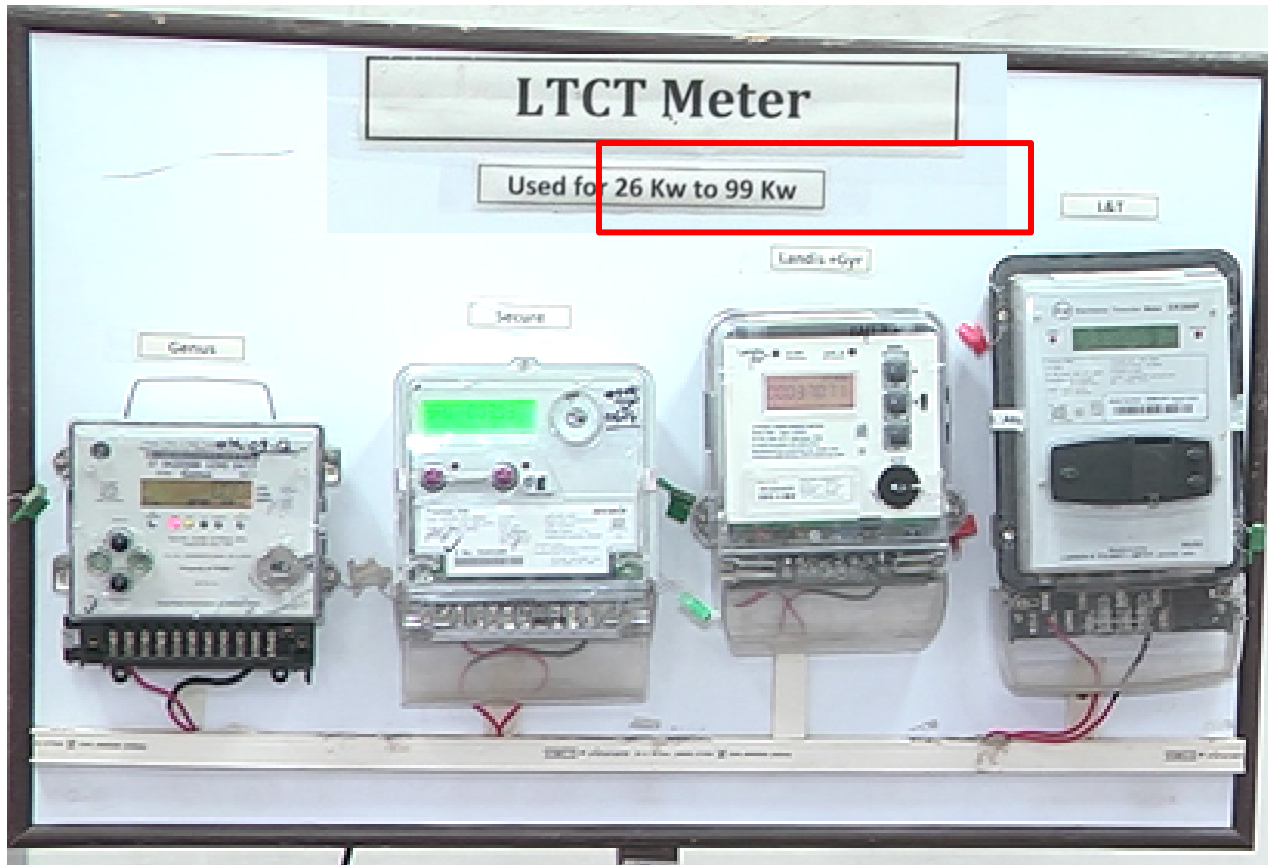


By the end of this session, you will be able to:

- Explain how Current Transformers (CTs) are connected to an energy meter to make it tamper proof in the box



Types of Energy Meters – LTCT Meter



Low Tension Current Transformer Meters



Types of Energy Meters – LTCT Meter

4 meters belonging to 4 different companies

Genus



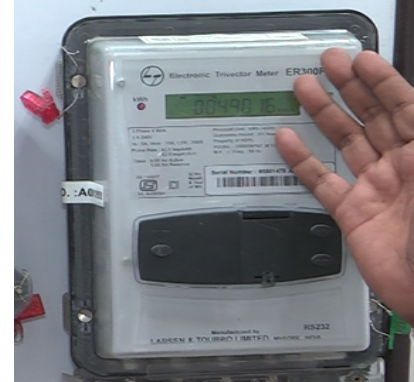
Secure



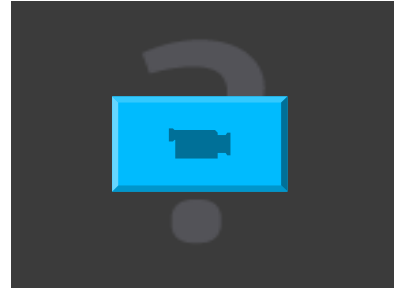
Landis + Gyr



L&T

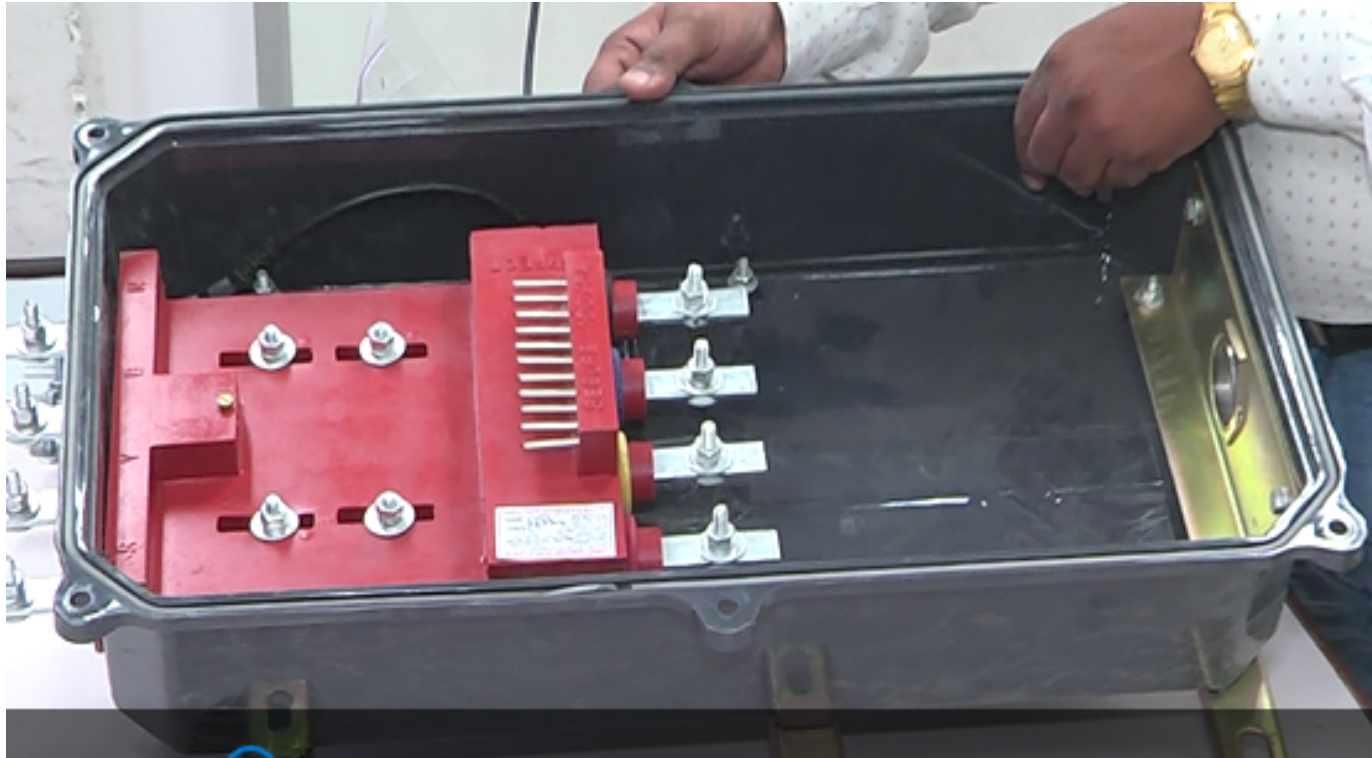


Used for 26 Kw to 99 Kw



Types of Energy Meters – LTCT Meter

Meter Box

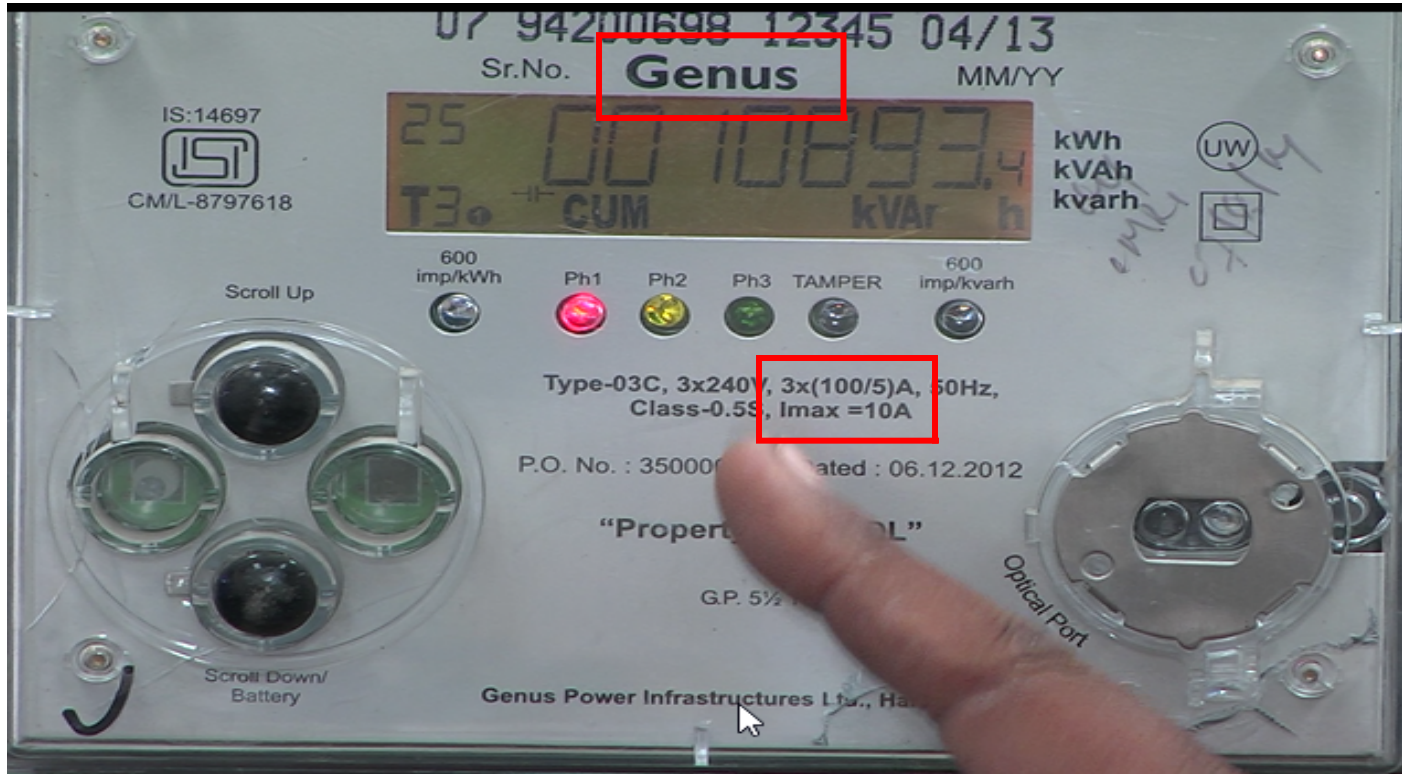


100/5 ampere meter box for 26 kW to 50 kW



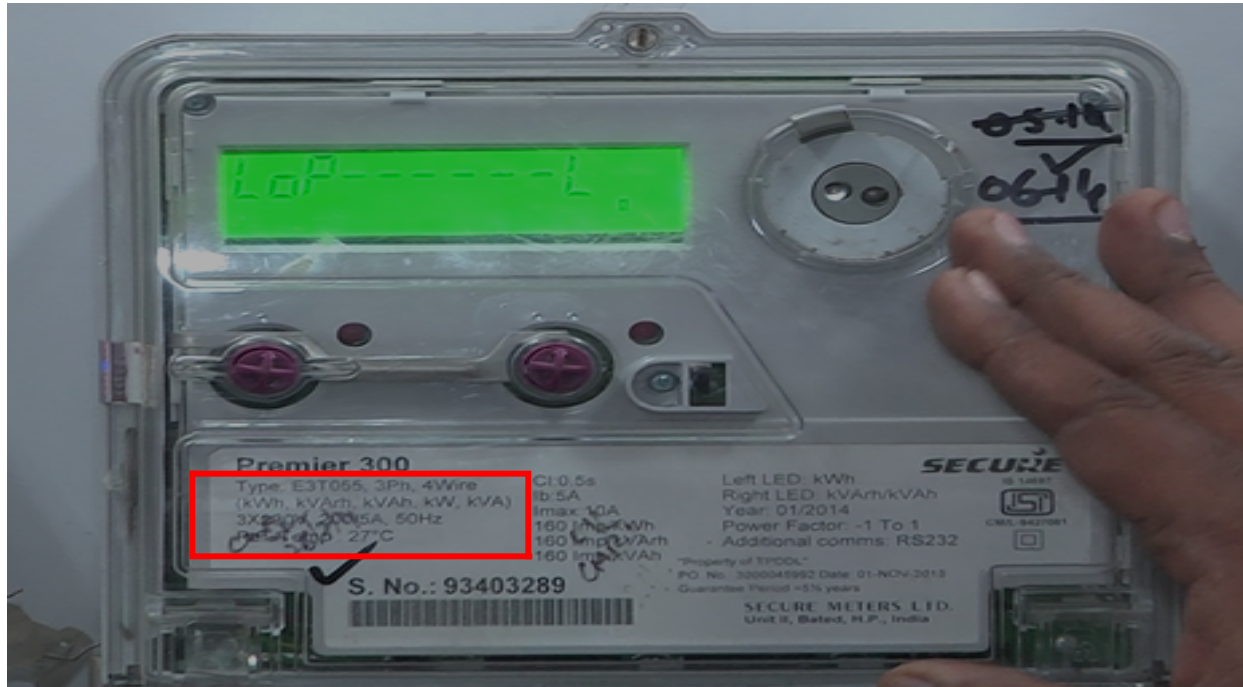
Types of Energy Meters – LTCT Meter

Genus Meter

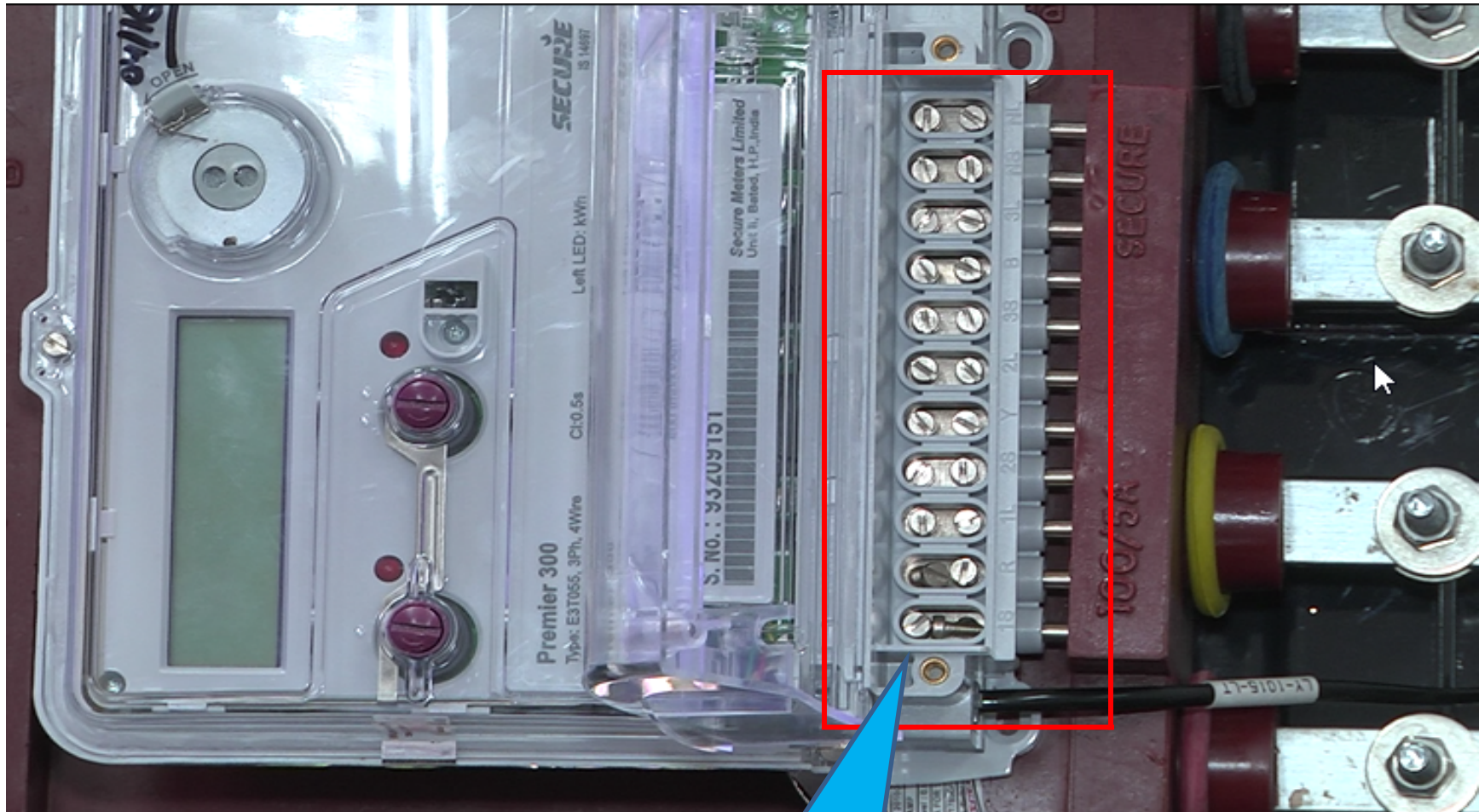


Types of Energy Meters – LTCT Meter

Secure Meter

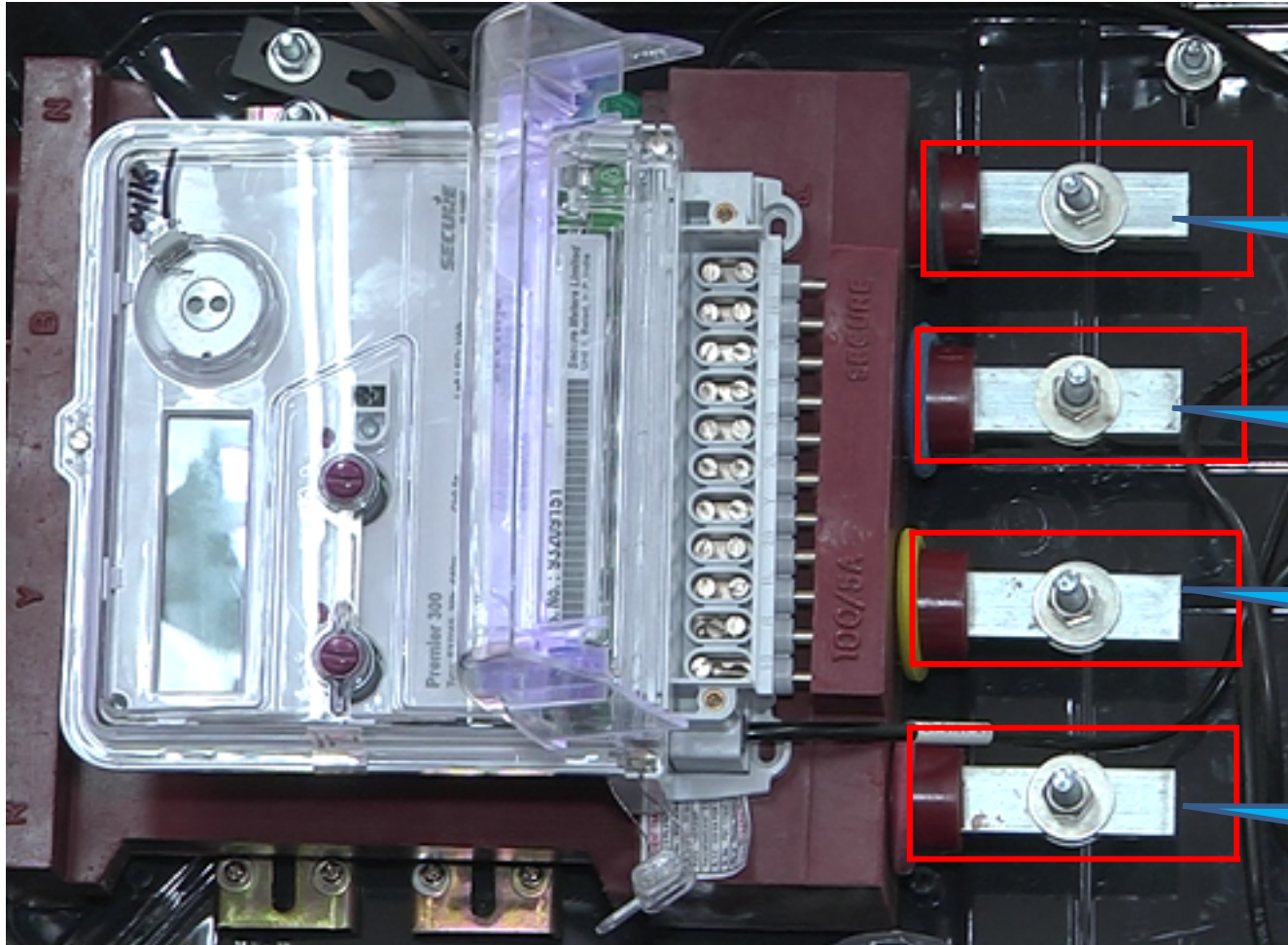


Types of Energy Meters – LTCT Meter



11 terminals

Types of Energy Meters – LTCT Meter



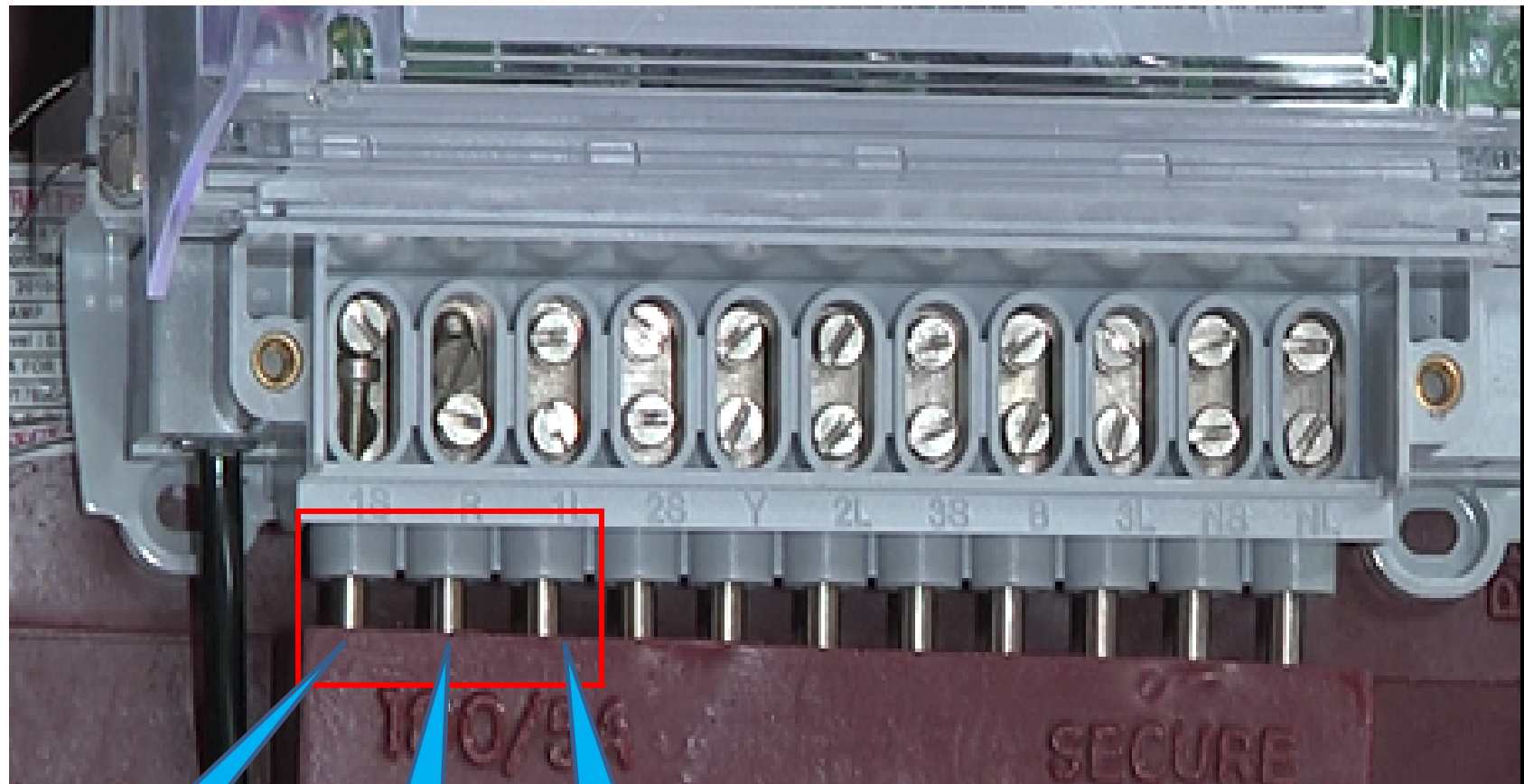
Neutral phase with 2 terminals

B phase with 3 terminals

Y phase with 3 terminals

R phase with 3 terminals

Types of Energy Meters – LTCT Meter

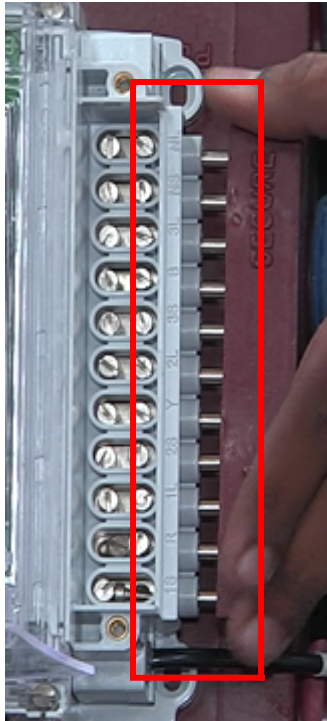


S1

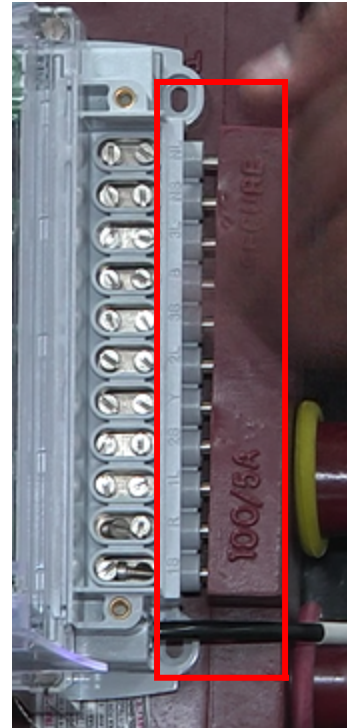
P1 or
RBS

S2

Types of Energy Meters – LTCT Meter



Lock the terminals



Meter fixation



LT ring

Tamper Proof Features

Meters are not affected by AC or DC injection

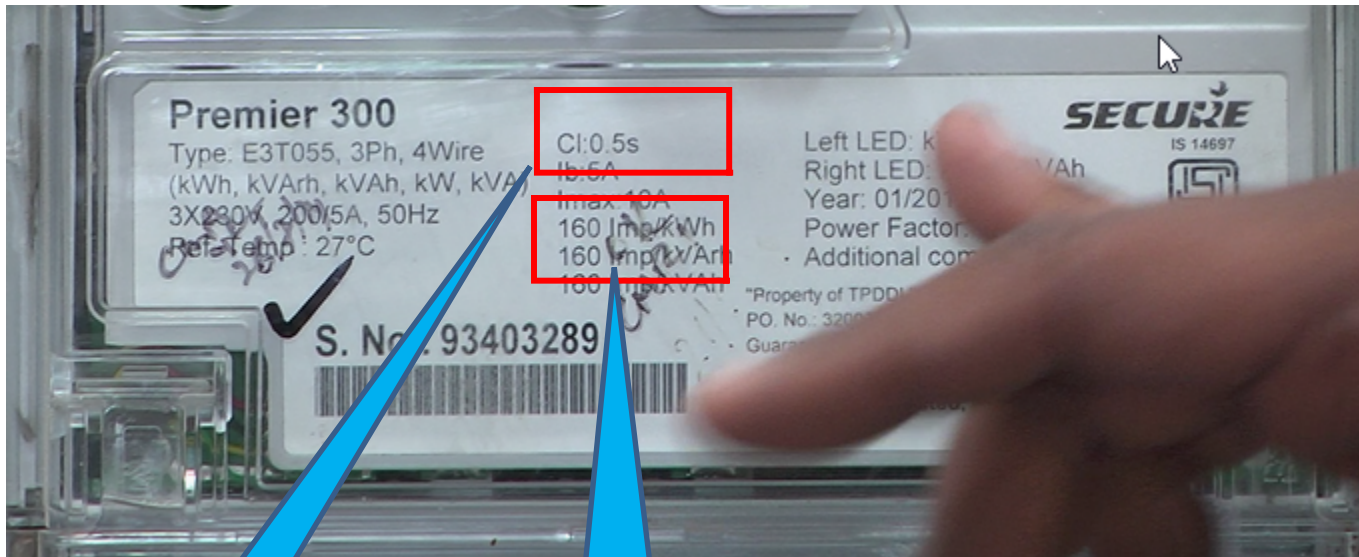
Displays time and date even if the tamper cover is open

Meter is not affected with ESD or radio frequencies

Secure Meter has features similar to that of polyphase meter

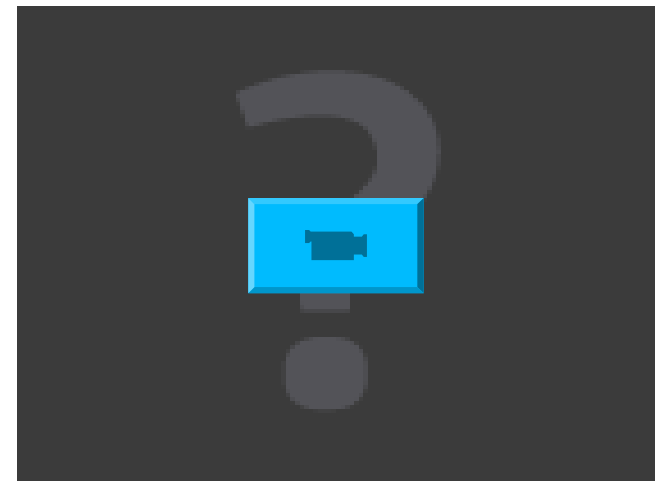


Types of Energy Meters – LTCT Meter



Class type

Impulse reading



Types of Energy Meters – LTCT Meter



Optical slot



Display

Displays three types of readings

Records maximum demand in kilowatt power

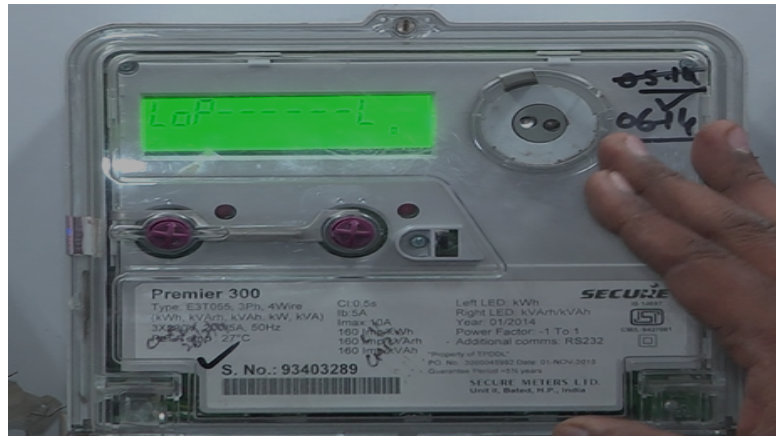
Displays instant line parameters like voltage reading

Displays the working and non-working phases

Displays maximum and minimum loads of various phases



Types of Energy Meters – LTCT Meter



- These meters can be used for loads up to 3 megawatts
- Done by increasing the rating of CTs from 400/5 A to 2000/5 A as ring CTs
- Commonly used in distribution transformers as consumer's energy meters and energy audit meters

Key Learning Outcomes



- LTCT or Low Tension Current Transformer meter is used to record power consumption of loads ranging from 26 kW to 99 kW
- The four types of meters are Genus, Secure, Landys+ Gyr and L&T
- There are 11 terminals in CT
- The sets are joined to R, Y, B and neutral phases

