# Transient Emission Testing System VTE 100

- ISO 7637-2
- GB/T 21437.2

## Features

> Test voltage up to DC 60 V with continuous current of 100 A
> Digital tubes display turn-on and turn-off time, automatic, manual or external trigger
> Built-in Resistor Rs, automatic switching
> Built-in overtemperature alarm

## Introduction

The VTE 100 transient emission testing system is developed and designed in accordance with ISO 7637-2, capable of meeting customers' testing requirements for conducted transient emissions of automotive components.

## Application Areas

## Technical Parameters

| Transient Emission Testing System Prameters | |
|---|---|
| Shunt Resistor | EXT., 10 Ω, 20 Ω, 40 Ω, 120 Ω |
| Trigger Mode | Auto, single, external |
| Mode Selection | Mechanical Switch, Electronic Switch |
| Max. Test Voltage | 60 V DC |
| Max. Test Current | 100 A |
| Temperature Alarm | 80℃ |
| **Artificial Network Parameters** | |
| Frequency | 0.1 MHz ~ 100 MHz |
| Capacitor | 0.1 μF |
| Impedance | 5 μH\|\|50 Ω, as per impedance graph in ISO 7637-2 |
| ZPA | <5 mΩ |
| **Electronic Switch VTE-100ES (Suitable for low-voltage transients below 400 V)** | |
| Switch ON/OFF Time | 0.01 s ~ 99.99 s ± (10%+10 ms) |
| Voltage Drop | ＜2 V @25 A, typical 2.3 V@100 A |
| Switching Time | 300 ns ± 20% @ load 50 μH/0.6 Ω |
| Transient Protection Voltage | 440 V |
| Dimension | 215 (W)*155 (H)*120 (D) mm (socket not included) |
| Weight | Approx. 3.2 kg |
| **Mechanical Switch VTE 100-MS (Suitable for high-voltage transients over 400 V)** | |
| Switch ON/OFF Time | 0.05 s ~ 99.99 s ± (10%+10 ms) |
| Max. Switching Current | 100 A |
| Max. Operating Duration | 25 ms |
| Max. Bounce Time | 5 ms |
| Release Time | 10 ms |
| Contact | High purity silver contact material, no suppression across relay contact |
| Dimension | 215 (W)*155 (H)*120 (D) mm (socket not included) |
| Weight | Approx.1.7 kg |

## General Parameters

| | |
|---|---|
| Working Power | AC 100 ~ 240 V (±10%), 50 Hz /60 Hz |
| Fuse | 6 A |
| Max. Power Consumption | 100 W |
| Grounding Method | ≤10 mm Banana plug line |
| Dimension | 320 (W)*205 (H)*300 (D) mm |
| Weight | Approx. 11 kg |
| Atmospheric Pressure | 86 kPa ~ 106 kPa |
| Ambient Temperature | 15℃ ~ 35℃ |
| Relative Humidity | 45% ~ 75% |

## Model Specification

| | |
|---|---|
| VTE 100 is composed of three parts: main unit, VTE 100-ES and VTE 100-MS. | |
| VTE 100 | Equipped with 5 μH || 50 Ω line impedance stabilization network and shunt resistor Rs |
| VTE 100-ES | Fitted with a 100 A electronic switch for measuring low-voltage transients (amplitude ＜400 V) |
| VTE 100-MS | Fitted with a 100 A mechanical switch for measuring high-voltage transients (amplitude ＞ 400 V) |

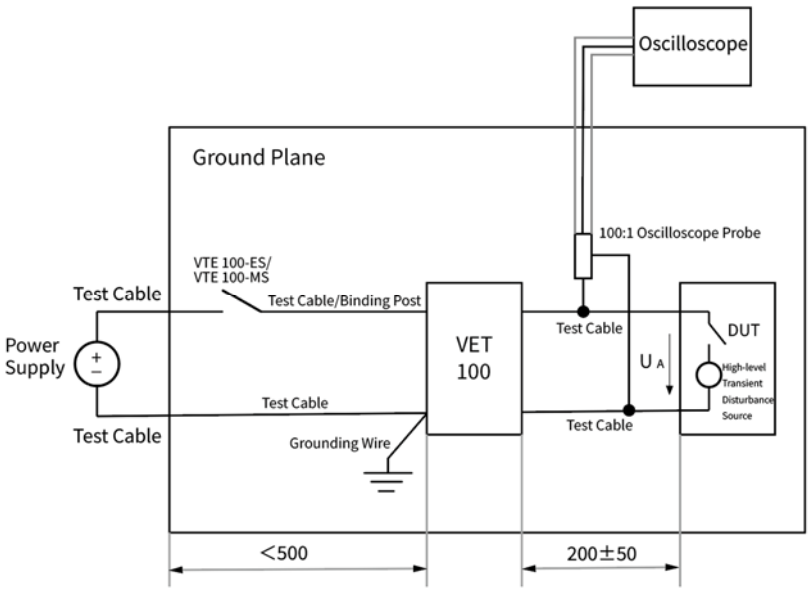
## Standard Accessories

User Manual, Power Cord, Fuse, Test Cable, Data Cable, Binding Post, Impedance Calibration Fixture, Standard M4 plug

## Optional Accessories

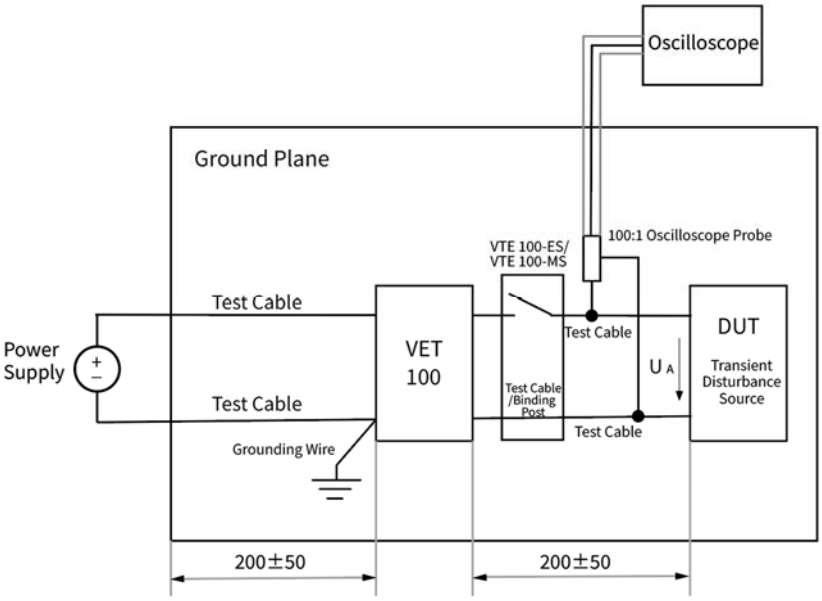
| | | | |
|---|---|---|---|
| 1 | Electronic Switch Calibration Fixture | Model: VTE-CAES<br>Input voltage: 13.5 V<br>Inductance: 50 μH<br>Resistance: 0.6 Ω<br>Used to verify electronic switch characteristics under 13.5 V operating voltage. |  |

## Product Schematic




Schematic Diagram for Slow Pulse Test Setup (ms or slower)

## Product Schematic




Schematic Diagram for Fast Pulse Test Setup (ns or μs)

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