Automotive Transient Emission Testing System VTE 100

Datasheet

In Compliance with

> ISO 7637-2:2012

> GB/T 21437-2008

Introduction

VTE 100 is designed according to ISO 7637-2 for performing conductive voltage emission tests. VTE 100-MS is a standard automotive relay, which is used for measuring transient emission with amplitude over 400 V, while VTE100-ES is a semi-conductive electronic switch for amplitude less than 400 V.

Features

> Meet the requirement of ISO 7637-2

> The position of ES switch and MS switch is interchangeable

> Testing voltage up to 60 V DC, continuous current100 A

> Switch on/off time is displayed on Nixie tube, with auto/manual/external trigger characters

> Built-in R_S resistor, switch automatically

> With function of over-heating alarm

Application Areas

> Automotive

General Parameters	
Working Power	AC 110 V/240 V（±10%），50 Hz /60 Hz
Fuse	6 A
Max. Power Consumption	100 W
EUT Voltage Monitoring Output	BNC，1:1 coaxial port output
Paralleled Resistor	EXT., 10 Ω, 20 Ω, 40 Ω, 120 Ω
Trigger Mode	Auto, single, external
Mode Selection	Mechanical Switch, Electronic Switch
Grounded Connection Mode	<=10 mm Banana plug line
Max. Test Voltage	60 V DC
Max. Test Current	100 A
Temperature Alarm	80 ℃
Dimension（L*W*H）	330 mm*320 mm*205 mm（socket not included）
Weight	Approx. 11 kg
Ambient Temperature	15 ℃–35 ℃
Relative Humidity	45%–75%
Atmospheric Pressure	86 kPa–106 kPa

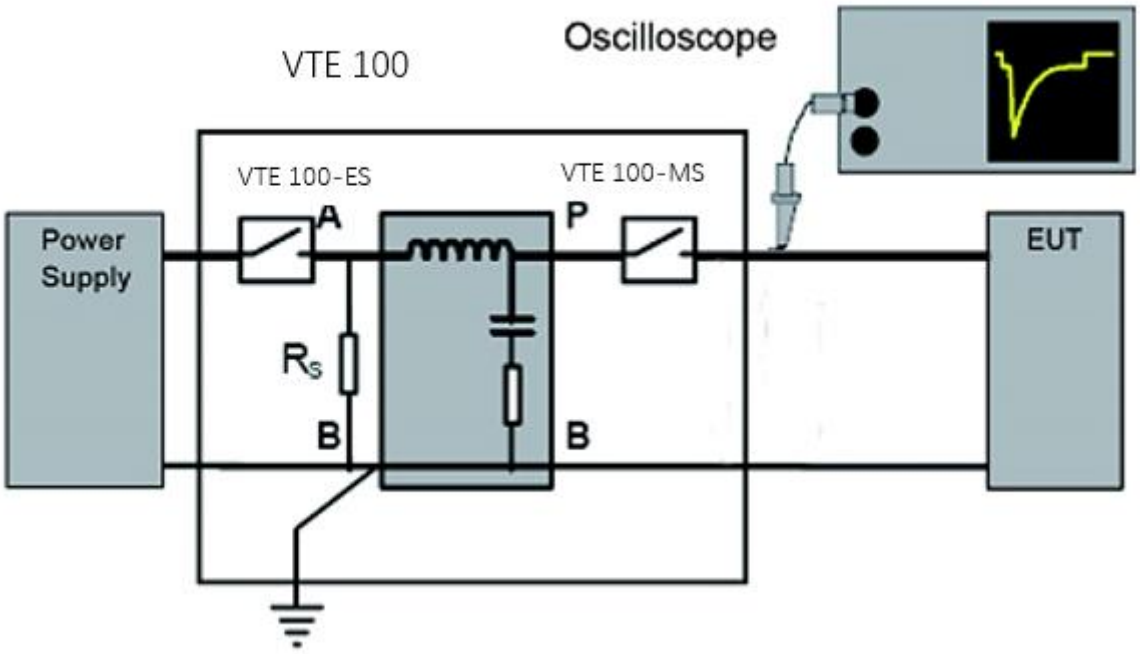
Artificial Network Parameters	
Frequency	0.1 MHz ~100 MHz
Capacitor	0.1 uF
Impedance	5 uH || 50 Ω, as per impedance graph in ISO 7637-2
ZPA	<5 mΩ

Parameters for VTE 100-ES	
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 uH/0.6 Ω
Transient Protective Voltage	440 V
Dimension（L*W*H）	120 mm*215 mm*155 mm（socket not included）
Weight	Approx. 3.2 kg

Accessories
User manual, Testing wire, Impedance calibration jig, Connecting pole, Data wire, Fuse*2, Power line, Standard M4 plug

Parameters for VTE 100-MS	
Switch ON/OFF Time	0.05 s~99.99 s+(10%+10 ms)
Max. Switch Current	100 A
Contact	High purity silver contact material, no suppression across relay contact
Dimension（L*W*H）	120 mm*215 mm*155 mm（socket not included）
Weight	Approx.1.7 kg

VTE –CAES (Optional Module)	
Input Voltage	13.5 V
Ambient Temperature	15 ℃-35 ℃
Dimension（L×W×H）	520 mm×520 mm ×590 mm
Weight	Approx. 16 kg
Calibration load 0.6 Ω and 50 μH fo r the verification of the electronic switch characteristic.	



VTE 100 Schematic Diagram

The diagram includes two switches, one paralleled resistor and one artificial network as per ISO 7637-2.