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VDS 200R SERIES

VOLTAGE DROP SIMULATOR - BATTERY SIMULATOR AND DC VOLTAGE SOURCE

FOR TESTS ACCORDING TO ...

› ISO 16750-2
› ISO 7637-2:2011
› SAE J1113-11
› many other automotive standards

VDS 200R - BATTERY SUPPLY SIMULATOR AND DC VOLTAGE SOURCE

The VDS 200R series is used to simulate the various battery supply waveforms recommended by international standards and by car manufacturer requirements. Especially the manufacturer requirements are an important area covered by the VDS 200R series as there is a large variety of requirements. Secondly, the VDS 200R series serve as powerful DC voltage supplies for the DUT during the tests with automotive transients. The VDS 200R series covers all three supply voltage categories (48 V, 24 V and 12 V). Their current capability ranges up to 100 A.

HIGHLIGHTS

- **Voltage up to 60 V**
- **Current up to 100 A (200 A peak)**
- **Two quadrant**
- **Fast rise time**
- **Very Low Ri, <10 mOhm**
- **High Bandwidth up to 150 kHz**
- **Temperature-controlled air cooling**

APPLICATION AREAS

AUTOMOTIVE

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TECHNICAL DETAILS

MODEL OVERVIEW

AVAILABLE VDS 200R-MODELS	
VDS 200R25	Voltage Drop Simulator, 60 V / 25 A
VDS 200R50	Voltage Drop Simulator, 60 V / 50 A
VDS 200R100	Voltage Drop Simulator, 60 V / 100 A

VDS 200R25	
Output Range	0 V to +60 V
Output Current	0 A - 25 A, continuous
Peak current	50 A for 200 ms
Bandwidth	DC - 150 kHz full signal
Supply Voltage	1-phase 100/120/230 V ±10%, L, N, PE
Dimensions	19"/25 HU*)
Weight	230 kg

VDS 200R50	
Output Range	0 V to +60 V
Output Current	0 A - 50 A, continuous
Peak current	100 A for 200 ms
Bandwidth	DC - 150 kHz full signal
Supply Voltage	3-phase 200/400 V ±10%, L1, L2, L3, PE
Dimensions	19"/25 HU*)
Weight	275 kg
	*) 38 HU variants, with space available for a UCS 200N, LD 200N, PFM 200N or PFS 200N are also available .

VDS 200R100	
Output Range	0 V to +60 V
Output Current	0 A - 100 A, continuous
Peak Current	200 A for 200 ms
Bandwidth	DC - 150 kHz full signal
Supply Voltage	3-phase 200/400 V ±10%, L1, L2, L3, PE
Dimensions	19"/38 HU
Weight	450 kg

COMMON DATA (ALL MODELS)

GENERAL	
Source impedance	Zi = ‹10 mOhm
Operation	Two quadrant operation
Recovery	›90% of excursion within 25 us
Output rise time	typ. ‹ 3 us
Ripple voltage	Ur ‹10 mVp-p, frequency min. 400 Hz
Control	Analog In, Internal
Cooling	temperature-controlled air cooling
Protection	Thermal-Magnetic Circuit Breakers Depending on VDS 200R model

TRIGGER	
Automatic	Automatic release of the events
Manual	Manual release of a single pulse
External	External release of a single pulse

OUTPUT	
DUT Supply +/-	Safety laboratory or high current connectors
Ext. trigger	5-15 V TTL, BNC connector
CRO Trigger	5 V TTL-signal for oscilloscope

INTERFACE	
Interfaces	USB Ethernet (for optional AutoWave) IEEE 488, addresses 1 - 30
Remote control	To connect an external signal generator (100 kohm): 0 - +10 V / 0 - 150 kHz (Gain 8, 60V max.)

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TECHNICAL DETAILS

OPERATION

TEST ROUTINES FOR ARBITRARY WAVES	
DC source	Depending on VDS 200R model
Functions	Sine Wave Sweep Sine Wave (Cranking) Clipped Load Dump Jump Start GM 9105P Pulse 4 Drop and Jump pulse External
Standard test routines	ISO 7637, Pulses 2b and 4 ISO 16750-2
Service	Service, Setup, Self test

GENERAL DATA

OPERATING ENVIRONMENT	
Temperature	10 - 40 °C
Rel. humidity	10 - 90 %, non-condensing
Atmospheric pressure	86 kPa (860 mbar) to 106 kPa (1,060 mbar)

OPTIONS	
AutoWave	2 or 4-channel arbitrary generator for automotive test applications
iso.control	Software to control the test, including standard library, test report facility and data conversion generator

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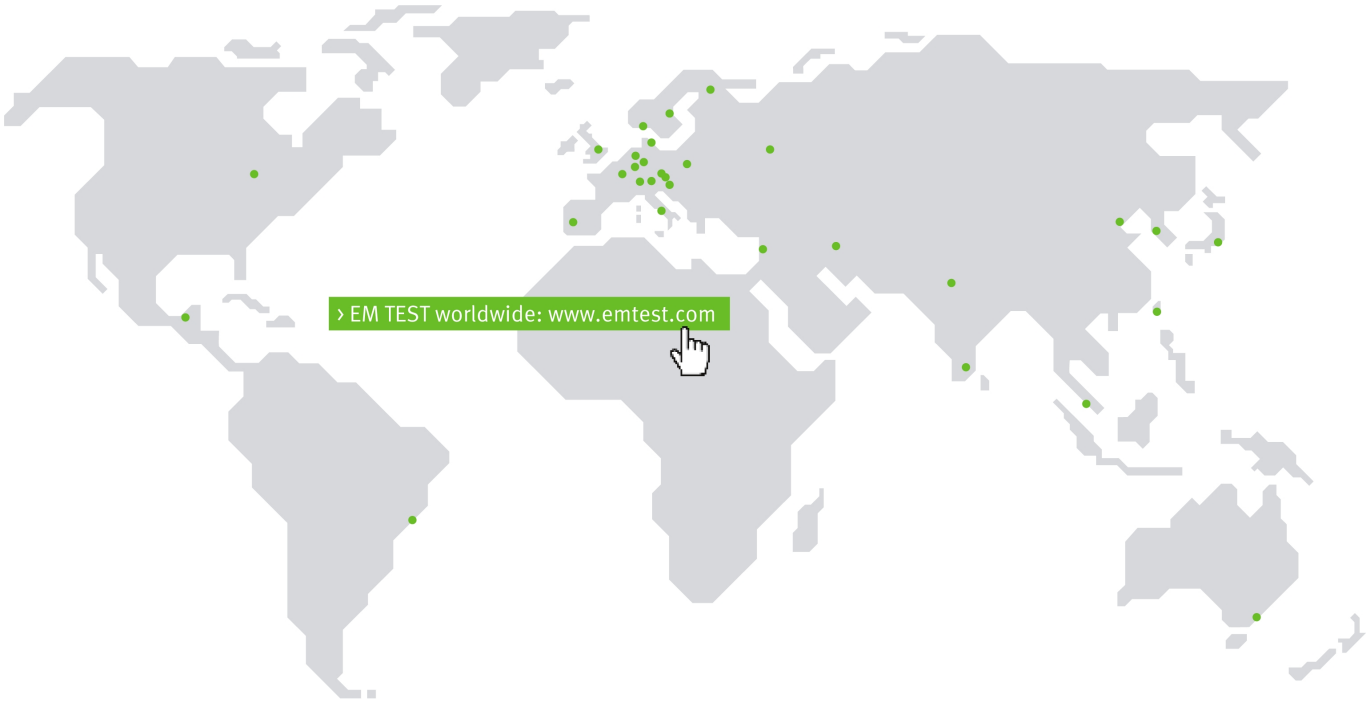
COMPETENCE WHEREVER YOU ARE



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