CAR – Transient Emission 14

EMC-Test Equipment for electrical installation of vehicles

Highlights:

- **Triggerable load switch**
- **Battery current:**
  50A / 100A / 200A
- **Shunt resistors integrated, switchable**
  10Ω / 20Ω / 40Ω

According to
ISO 7637: 2011
CISPR 25
CISPR 16-1-2

The CAR- Transient Emission 14 is used to check the transient transition behaviour when switching loads on the vehicle electrical system.
It consists of two triggerable circuit breakers (electronically or mechanically), an artificial network, a control unit for operating the device, and optionally an external power supply.

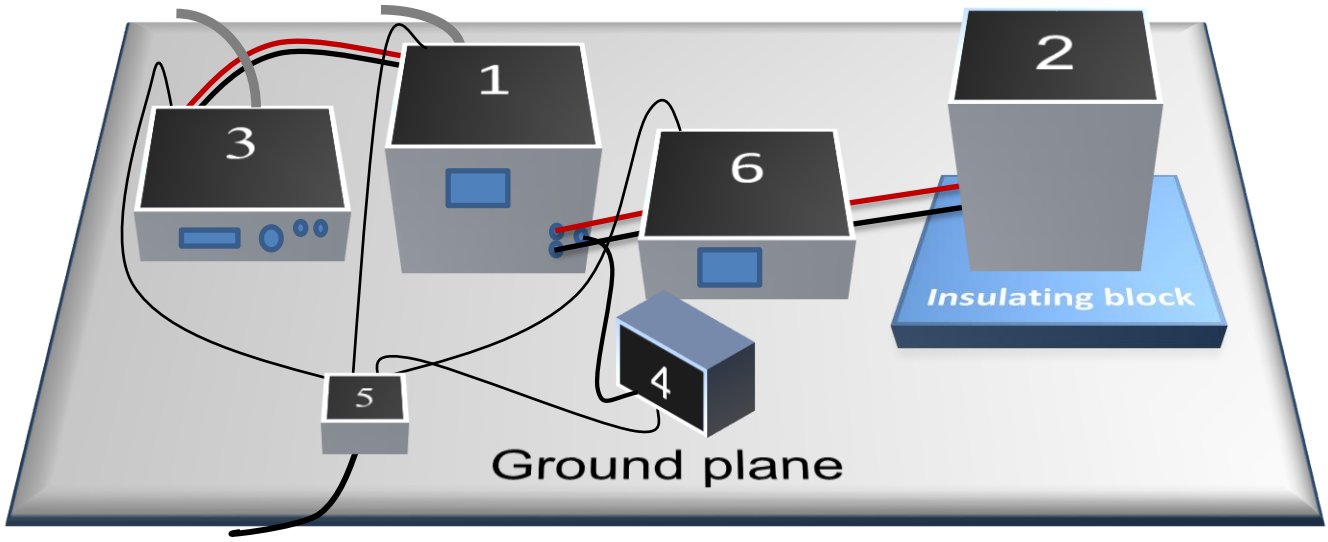
The CAR-Transient Emission 14 can perform the "Transient Emission Test" for "slow pulses" and "fast pulses" according to ISO 7637-2.

A microprocessor-controlled 7" touch screen display unit is integrated and permits an easy operation of the generator.
The software program CAR-remote permits the PC control of the generator via Ethernet and also allows the standardized documentation according to IEC 17025 and the evaluation of test results.

The device can be operated individually or in conjunction with the CAR TEST SYSTEM and can be controlled by the PC Remote software.
It is characterized by its compact design and a easy operation.

Option	Description
switchable to CISPR 25	1µF
switchable to CISPR 16-1-2	2µF + 1Ω
PC Software CAR-Remote (required for PS)	To control CAR - Tester 14 To control PS xx-xx To control PG 2804 To control CAR-Transient Emission 14

Block diagram of CAR-TEST-SYSTEM 14 with CAR-TE14



1 CAR-SYS Generator
with internal power supply resistance R_i
ground connection; maximum length for test pulse 3: 100 mm
2 device under test disconnected / connected
3 Power supply 70V/ 200A
4 Oscilloscope, at monitor output, built in 1:100
5 Ethernet switch
Connected with PC control (CAR-Remote Software)
6 CAR-TE14

Options :
- CAR-SS-A1250-16E
- Load Dump 2804
- Load Dump 3xPS 66-55

Technical specifications:	CAR-TE 14
Mainframe	
Microprocessor controlled touch panel	7”, capacitive
Ethernet Interface for remote control of the generator	built-in
Interface for saving reports	USB
External trigger input /output	Switch/ 10 V
Connector for external safety interlock loop	24 V=
External red and green warning lamps acc. to VDE 0104	230V / 60 W
Mains power	90V - 264V, 50/60 Hz
Dimensions desk top case, W * H * D	450*310*500 mm^3
Weight	35kg
Transient Emission Test, Power Switch Transients, According to DIN/ ISO 7637-2	
Max. operating voltage	70V
High short circuit current capability	900A
Voltage drop over switch at 25A	< 2.0V
Switching time electr. switch	< 300ns
Transient over voltage protection	> 500V
Nominal voltage	0 - 100%
Minimal turn off time; mechanical / electronically switch; toff	1 / 0.1 s
Minimal Period; mechanical / electronically switch; Period	0.5 / 0.01 s
Number of tests	1 – 1000; infinity
Mechanical switch, switch time	200ms
Artificial network	
Series inductance	5 µH, 50/ 100/ 200 A
Load impedance	0.1 µF + 50 Ω
Load resistor Rs, switchable	10 / 20 / 40 Ω
Connectors for external load resistor, > 2.0 Ω	build in
Artificial network	on / off
Power supply switch, mechanical or electronic	
Max. output current	50/100/200 A
Max. reverse voltage	800 V
Trigger input, connectable to external modules	build in
Measurement probes, Transient immunity test	
Impulse voltage divider, 5.0 kΩ/50Ω	100:1, 10 MHz, 1kV-peak