LDS series

LOAD DUMP SIMULATOR

Load dump simulator LDS 100

- ✓ Predefined pulses (pulse 5a and 5b) to meet automotive standards
- ✓ Pulse parameters are freely adjustable
- ✓ High current capability up to 200 A
- ✓ Save different pulse profiles on the simulator
- ✓ Pulse amplitude up to 250 V
- ✓ Simulator control via webinterface and interface commands
- ✓ Test and evaluation software available

The relating standards:*
ISO 7637-2
ISO 7637-3
ISO 16750-2
ISO 21848
LV124
VDA320 (LV148)
BMW GS 95002
BMW GS 95002-2
BMW GS 95003-2
BMW GS 95024-2-2
BMW GS 95026
FCA CS.00054
Fiat 9.90111-01
Ford FMC1278
GMW 3097
GMW 3172
JLR EMC-CSv1.0A4
MAN M 3285
MBN LV 124-1
MBN 10567
Mitsubishi ES-X82114
Mitsubishi EX-X82115
Nissan 28401NDS02
PSA B21 7110
Renault 36-00-808/--M,N
SAE J 1113-11
Volvo 31822854
Volvo 31850329
VW 80000
VW 82148
VW TL 81000
Magnetic field test

** The LDS series can be used for certain tests within these standards. Additional equipment might be required. For detailed information, please contact sales@spitzenberger.de.*

Pulse characteristic

The LDS allows to generate pulses as required in many automotive test standards. For a list of predefined pulses see Table 1. These pulses may occur in the event of a discharged battery being disconnected while the alternator is generating excessive charging current to loads, which are remaining on the alternator circuit at the moment of battery disconnection. The alternator output generates an overvoltage pulse, as shown in Figure 1. In case the alternator has a built-in overvoltage protection, the amplitude of the overload pulse is limited as shown in Figure 2.

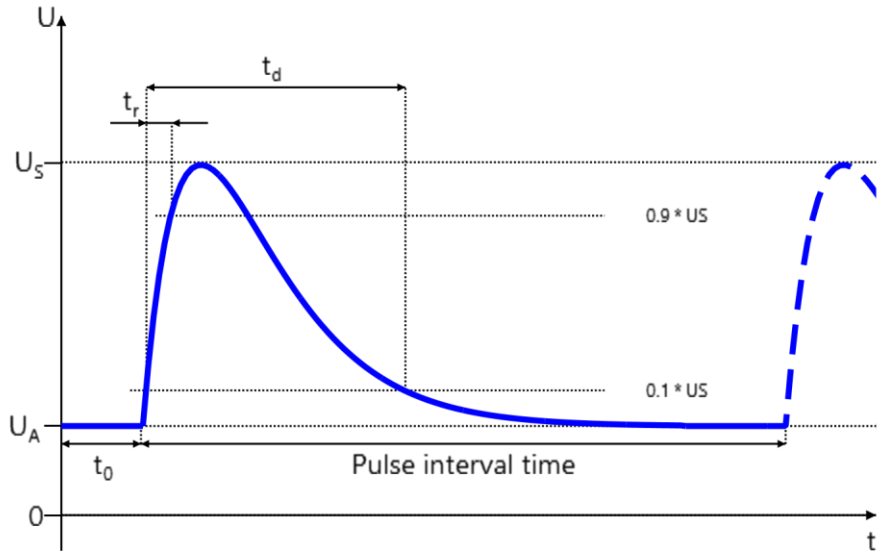

Fig. 1: Load dump test pulse 5a

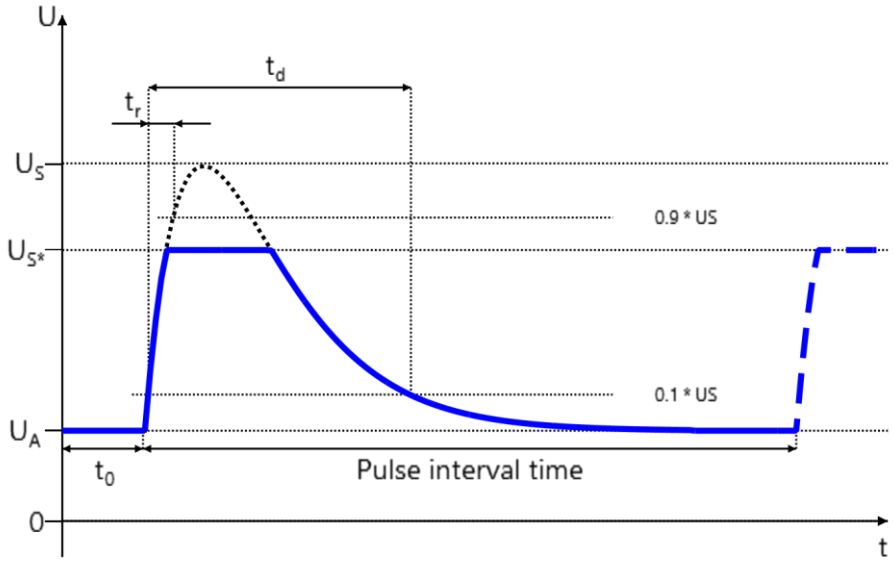

Fig. 2: Load dump test pulse 5b

Predefined pulses*

Standard	Pulse
BMW GS 95002-2	5
BMW GS 95003-2	5a, 5b
FCA CS.00054	Test B
Fiat 9.90111-01	5b
Ford FMC1278	5a, 5b
GMW 3097	5b
ISO 16750-2	Test A, Test B
ISO 7637-2	5a, 5b
Jaguar JLR-EMC-CS v1.0 Amendment4	G1, G2
Nissan 28401NDS02	5a, 5b, 5c
PSA B21 7110	EQ/IC 03
Renault 36-00-808	5a, 5b, 5c
SAE j1113-11	5a, 5b, 5c
Scania TB1901	5b
Volvo 31822854	Test B
VW TL 81000	Impulse 48

Table 1: Predefined pulses

* Other standards and pulses on request

TOUCHSCREEN USER INTERFACE

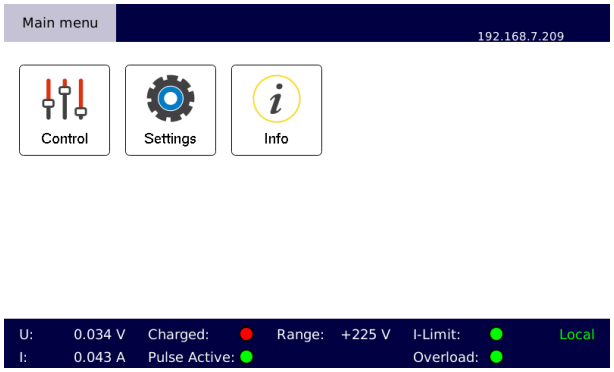

Fig. 3: Main menu

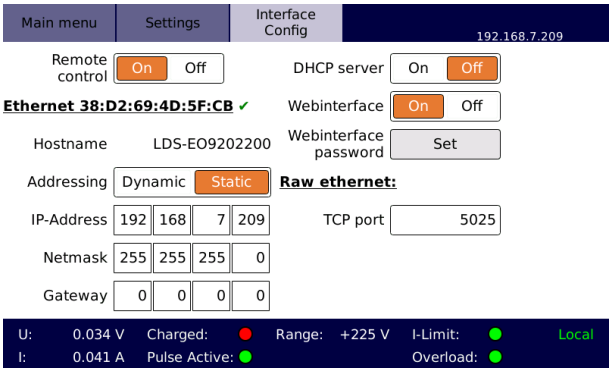

Fig. 4: Interface configuration

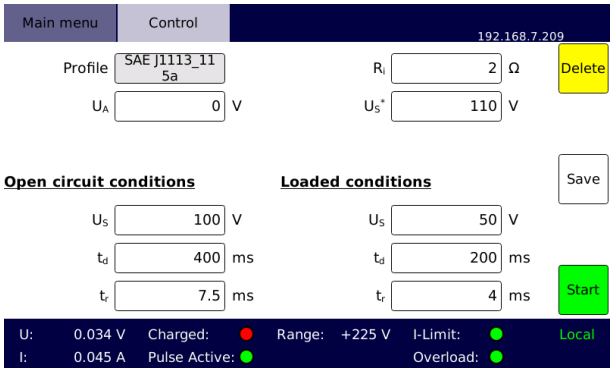

Fig. 5: Control setting

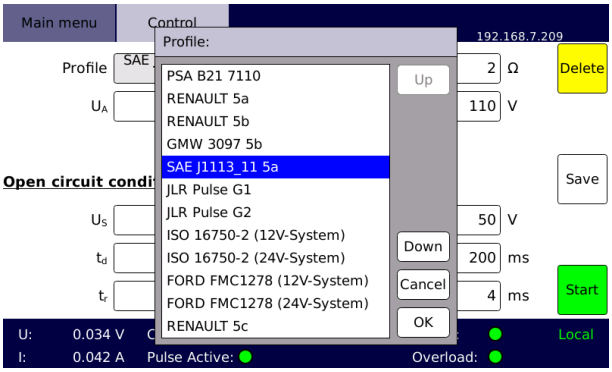

Fig. 6: Predefined profiles

SOFTWARE CONTROL

SPS TestManager

- ✓ Test and evaluation software for fully compliant emission and immunity tests
- ✓ Automated test run of various IEC and automotive standards

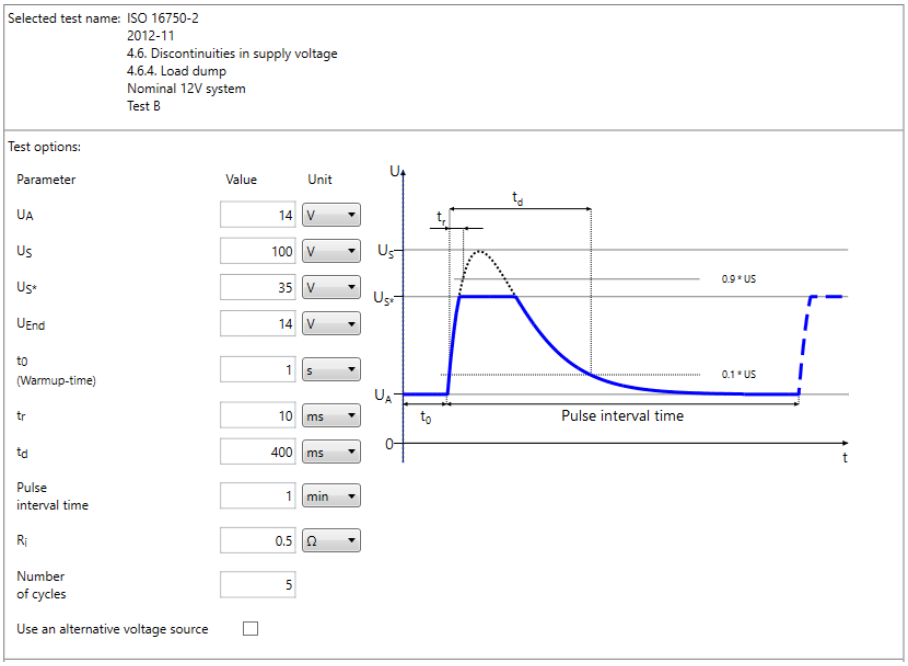

Fig. 7: SPS TestManager software

Command interface

- ✓ Easily integrate the device into your own software applications
- ✓ Remote control commands are based on the SCPI standard

Webinterface

- ✓ Monitor and control the connected device via a web browser

TECHNICAL DATA

		LDS 100	LDS 200
DC input voltage U_A *(max.)*		70 V	70 V
Continuous current		100 A	200 A
Pulses			
	Open circuit peak voltage U_S	0 V … 250 V	
	*Supply voltage with load dump suppression U_S**	0 V … 250 V	
	Pulse width t_d (max.)	R_i * 400 mF	
	Energy (max.)	U_S^2 * 22 mF	
	Repetition rate (min.)	10 s	
	Source resistor R_i	0 Ω … 50 Ω	
	Rise time t_r	0.5 µs … 1 µs	
Protection circuits		overload / overtemperature / short circuit	
Internal control unit			
	Display	7.0" touchscreen (17.8 cm, resolution 800 x 480)	
	User interface	touchscreen / front panel button / incremental encoder webinterface	
Interface		Ethernet 100 Mbit/s (HiSLIP SCPI) USB 2.0 Host	
Cooling		temperature-controlled forced air cooling	
Ambient temperature		+10 °C up to +40 °C	
Storage temperature		-25 °C up to +60 °C	
Relative humidity		non condensing, max. 80 % for temperature < 31 °C, decreasing linearly to 50 % at 40 °C	
Ingress protection		IP20	
Power supply *(±10 %, 50/60 Hz)*		230 V	
Line protection, connection		16 A, Schuko	
Housing		desktop unit or plug-in, colour light grey (RAL 7035)	
	Simulator	19", 7 U	
	approx. dimension (H x W x D)	311 x 483 x 700 mm	
Weight	*Simulator (approx.)*	60 kg	

OPTIONS AND ACCESSORIES

Options		
OPT.01	IEEE488	Not in combination with OPT.02
OPT.02	RS232	Not in combination with OPT.01