DSR 100 Series

Dropout, Surge, Ripple Simulator and AC/DC Voltage Source

Includes library of 3,400+ pre-entered Automotive and Aviation Standards' test routines

Operate as a free-standing system using the included monitor, keyboard and mouse, or control via LAN

Very easy to modify existing tests or build new test sequences

Can function as a controller or node in a larger test system via built-in LAN and GPIO controls

Models from 25A to 200A continuous output current available

Key Performance Capabilities:

4-Quadrant	**Can source and sink current**
Up to ±100V	**DC supply for 12V – 48V systems**
300 kHz Sine	**DC ripple tests for all major standards**
20 mV	**Noise Floor**

3µs Rise time exceeds Surge and Drop-out slew rate requirements

3mΩ DC source impedance – better than ISO 7637-2 requirements

Supports ground reference and supply offset testing required for ISO 16750-2 Sect. 4.8 and other similar standards

AE Techron's DSR 100 Series systems provide complete, single-box solutions for immunity testing. They include a simple-to-use yet powerful standards waveform generator matched with an industry leading power supply technology and come with an extensive library of tests for many automotive and aviation standards.

All models of the DSR 100 Series are 4-quadrant, allowing them to source and sink current. The DSR Series has power in reserve; each model provides continuous DC power as rated, and is able to provide 4X rated power (2X for 7234-based models) for in-rush testing up to 200 ms, as is required in DO 160 Section 16.

Pre-entered tests for the following industry standards:

ANSI ASAE EP455 (Feb03)
IEC 6100-4-16
IEC 6100-4-19
ISO 7637-2 (2014) (E)
ISO 11452-10
ISO 16750-2 (2023)
ISO 21498-2
ISO 21780
ISO 21848
JASO D 001-94 (1994-03-31)
MIL STD 461G
MIL STD 704F
MIL STD 1275E
MIL-HDBK-704-8
SAE J1113-2 JUL2004
SAE J1113-11-202303 MAR2023
SAE J2139-201412 DEC2014
SAE J2628-201806 JUN2018

See page 2 for manufacturer-specific tests.

Manufacturer Specific Standards

Airbus ABD0100.1.8 Issue E
Airbus ABD0100.1.8.1 Issue C
Audi I EE-32 (2006-06)
BMW GS 95003-2 (2010-01)
BMW GS 95023
BMW GS 95024-2-1 (2010-01)
BMW GS 95024-2-2 (2011-01)
Boeing-D6-16050-5-C
Boeing-D6-36440E
Case New Holland ENS0310 (12-2-2010)
Chrysler CS-11809 (2009-05-29)
Chrysler CS-11979 (2010-04-13)
Claas CN 05 0215 (2004-12)
Cummins 14269 (06201-028)
Cummins 14387 (102020-119)
DAF BSL-003 (1998-12)
DAF BSL-006 (2009-04)
Daimler Chrysler DC-10842 (2003-12)
Daimler Chrysler PF-9326 Change D
DO160G
Fiat 9-90110 Issue 13 (2007-03)
Ford CS-2009.1
Ford FMC1278
General Motors GMW3172_H (July 2010)
General Motors GMW3172_I
Harley-Davidson EG-812-22613
Honda 30AA
Honda 7794Z-SAAA-000 (28.12.2004)
Hyundai ES 39110-00 (2005-08)
Hyundai ES 95400-10 (2007-11-14)
Hyundai ES 96100-02 (2006-11-16)
JLR-EMC-CS v1 Amendment 4 (Nov 2013)
MBN-LV 123
MBN-LV 124
MBN-LV 148
Mazda MES PW67600 (1995-07)
Mitsubishi ES-X82010 Rev Q (2007-01)
Mitsubishi ES X82115 Rev C (2009-03)
Nissan 28400NDS02 Rev 3 (1999-07)
Nissan 28400NDS03 Rev 3 (2005-08)
Nissan 28401NDS02 Rev 4 (2008-08)
Stellantis CS.00244
Stellantis CS.00245
Stellantis CS.00246
Tesla TS-0000425-05 Rev 6
Tesla TS-2024048 Rev 1
Toyota TSC70212G (2007-06)
Volkswagen VW 80000 (2009-10)
Volkswagen VW 80101 (2009-03)
Volkswagen VW 80300
Volkswagon VW TL 820 66

DSR 100-25
Voltage Output Range: –70V to +70V
Output Current: 0A to 25A continuous
Peak Current: 50Ap for 200 ms
Bandwidth (-3dB), Full Signal: DC to 200 kHz
Small Signal: 3Vp-p to 1 MHz
Source Impedance: 4.4 mΩ + 0.43 µH
Supply Voltage: Single-phase 120V ±10%, 30A, 50/60 Hz; 230V, 15A version available
Dimensions (HxWxD): 9.5 x 20 x 25 in. (63.5 x 24.1 x 50.8 cm)
Weight: Approximately 76.5 lbs. (34.7 kg)

DSR 100-75
Voltage Output Range: –70V to +70V
Output Current: 0A to 75A continuous
Peak Current: 150Ap for 200 ms
Bandwidth (-3dB), Full Signal: DC to 200 kHz
Small Signal: 3Vp-p to 1 MHz
Source Impedance: 4.4 mΩ + 0.43 µH
Supply Voltage: 3-phase 208V ±10%, 20A, 50/60 Hz; 400V, 10A version available
Dimensions (HxWxD): 45.8 x 22.6 x 31.6 in. (116.3 x 57.3 x 80.2 cm)
Weight: Approximately 353 lbs. (160 kg)

DSR 100-155
Voltage Output Range: –70V to +70V
Output Current: 0A to 155A continuous
Peak Current: 300Ap for 200 ms
Bandwidth (-3dB), Full Signal: DC to 200 kHz
Small Signal: 3Vp-p to 1 MHz
Source Impedance: 3 mΩ + 2.2 µH
Supply Voltage: 3-phase 208V ±10%, 40A, 50/60 Hz; 400V, 20A version available
Dimensions (HxWxD): 45.80 x 22.56 x 31.56 in. (116.33 x 57.3 x 80.16 cm)
Weight: Approximately 479 lbs. (217 kg)

DSR 100-200
Voltage Output Range: –100V to +100V
Output Current: 0A to 200A continuous
Peak Current: 800Ap for 200 ms
Bandwidth (-3dB), Full Signal: DC to 150 kHz
Small Signal: 20Vp-p to 250kHz
Source Impedance: 3 mΩ + 2.2 µH
Supply Voltage: 3-phase 208V ±10%, 125A, 50/60 Hz; 400V, 65A version available
Dimensions (HxWxD): 69.25 x 22 x 28 in. (175.9 x 55.9 x 71.1 cm)
Weight: Approximately 850 lbs. (386 kg)

Common Data (all models)

Operation: 4-quadrant, bi-polar operation
Output Rise Time: <3 µS
Remote Control: GPIO, LAN
Cooling: Internal forced-air fans
Protection: Over/under voltage, over current, over temperature
Trigger: Automatic repeat, manual trigger, external trigger via GPIO or LAN
Input, Signal In: BNC connector; **LAN:** Ethernet connector
Output, DUT Supply +/-: High-current connectors; **Signal Output:** BNC connector; **LAN:** Ethernet connector
Waveforms: Sine wave sweep, ripple (cranking), DC source, triangle wave, square wave, sawtooth wave
Control Functions: Trigger, fixed loop, variable loop, template playback, GPIO output, LAN output
Operating Environment,
Temperature: 10°C to 50°C (50°F to 122°F), Maximum Output Power de-rated above 30°C (86°F).)
Humidity: 70% or less, non-condensing
Atmospheric Pressure: 86 kPa (860 mbar) to 106 kPa (1,060 mbar)