



## DSR 100 Series Dropout, Surge, Ripple Simulator and AC/DC Voltage Source

Includes library of 3000+ 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
- $\pm 100V$  DC supply for 12V - 48V systems
- 300 kHz Sine DC ripple tests for all major standards
- 3 $\mu s$  Rise time exceeds Surge and Drop-out slew rate requirements
- 3m $\Omega$  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 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 16750-2 (2023)
- ISO 21780:2020
- ISO 21848
- JASO D 001-94 (1994-03-31)
- MIL STD 461G
- MIL STD 704F
- 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	DAF BSL-003 (1998-12)	Hyundai ES 95400-10 (2007-11-14)
Airbus ABD0100.1.8.1 Issue C	DAF BSL-006 (2009-04)	Hyundai ES 96100-02 (2006-11-16)
Audi I EE-32 (2006-06)	Daimler Chrysler DC-10842 (2003-12)	JLR-EMC-CS v1 Amendment 4 (Nov 2013)
BMW GS 95003-2 (2010-01)	Daimler Chrysler PF-9326 Change D	Mazda MES PW67600 (1995-07)
BMW GS 95024-2-1 (2010-01)	DO160G	MIL STD 461G
BMW GS 95024-2-2 (2011-01)	Fiat 9-90110 Issue 13 (2007-03)	MIL-HDBK-704-8
Boeing-D6-16050-5-C	Ford CS-2009.1	Mitsubishi ES-X82010 Rev Q (2007-01)
Boeing-D6-36440E	Ford FMC1278	Mitsubishi ES X82115 Rev C (2009-03)
Case New Holland ENS0310 (12-2-2010)	General Motors GMW3172_H (July 2010)	Nissan 28400NDS02 Rev 3 (1999-07)
Chrysler CS-11809 (2009-05-29)	General Motors GMW3172_I	Nissan 28400NDS03 Rev 3 (2005-08)
Chrysler CS-11979 (2010-04-13)	Harley-Davidson EG-812-22613	Nissan 28401NDS02 Rev 4 (2008-08)
Claas CN 05 0215 (2004-12)	Honda 30AA	Toyota TSC70212G (2007-06)
Cummins 14269 (06201-028)	Honda 7794Z-SAAA-000 (28.12.2004)	Volkswagen VW 80101 (2009-03)
Cummins 14387 (102020-119)	Hyundai ES 39110-00 (2005-08)	Volkswagen VW 80000 (2009-10)
		Volkswagen 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 300 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 300 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 300 kHz  
**Small Signal:** 3Vp-p to 1 MHz  
**Source Impedance:** 3 mΩ + 2.2 μH  
**Supply Voltage:** 3-phase 208V ±10%, 20A, 50/60 Hz; 400V, 10A 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)

