# DSR 100 Series

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


**Key Performance Capabilities:**

| | |
|---|---|
| 4-Quadrant | Can source and sink current |
| ±80V | DC supply for 12V – 48V systems<br>Meets 80V surge requirements |
| 300 kHz Sine | DC ripple tests for all major standards |
| 3µS Rise time | exceeds Surge and Drop-out slew rate requirements |
| 3mΩ DC source impedance | – better than ISO 7637-2 requirements |

**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.

**Includes library of 1000+ 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**

**Models from 15A to 200A continuous output current available**

**Pre-entered tests for the following Industry standards:**

ANSI ASAE EP455 (Feb03)
DO 160G (2012-12)
ISO 7637-2 (2014) (E)
ISO 7637-2 (2011) (E)
ISO 16750-2 (2012-11) (E)
JASO D 001-94 (1994-03-31)
MIL STD 461F (2007-12)
SAE J1113-2 JUL2004
SAE J1113-11 JUN2007
SAE J2139 SEP2005
SAE J2628 JUL2007

*See page 2 for manufacturer-specific tests.*

### DSR 100 - 15
**Output Current:** 0A to 15A continuous
**Peak Current:** 50A for 200 mS
**Bandwidth (-3dB), Full Signal:** DC to 200 kHz
**Small Signal:** 20Vp-p to 300kHz
**Supply Voltage:** Single-phase 100/120/230V ±10%
**Dimensions (DxHxW):** 25 x 9.5 x 20 in. (63.5 x 24.1 x 50.8 cm)
**Weight:** Approximately 70 lbs. (32 kg)

### DSR 100 - 50
**Output Current:** 0A to 50A continuous
**Peak Current:** 200A for 200 mS
**Bandwidth (-3dB), Full Signal:** DC to 150 kHz
**Small Signal:** 20Vp-p to 250kHz
**Supply Voltage:** 3-phase 200/400V ±10%
**Dimensions (DxHxW):** 27 x 34 x 22.5 in. (68.6 x 86.4 x 57.2 cm)
**Weight:** Approximately 215 lbs. (98 kg)

### DSR 100 - 100
**Output Current:** 0A to 100A continuous
**Peak Current:** 400A for 200 mS
**Bandwidth (-3dB), Full Signal:** DC to 150 kHz
**Small Signal:** 20Vp-p to 250kHz
**Supply Voltage:** 3-phase 200/400V ±10%
**Dimensions (DxHxW):** 27 x 46 x 22.5 in. (68.6 x 116.8 x 57.2 cm)
**Weight:** Approximately 380 lbs. (172 kg)

### DSR 100 - 150
**Output Current:** 0A to 150A continuous
**Peak Current:** 600A for 200 mS
**Bandwidth (-3dB), Full Signal:** DC to 150 kHz
**Small Signal:** 20Vp-p to 250kHz
**Supply Voltage:** 3-phase 200/400V ±10%
**Dimensions (DxHxW):** 28 x 55.25 x 22 in. (71.1 x 140.3 x 55.9 cm)
**Weight:** Approximately 600 lbs (272 kg)

### DSR 100 - 200
**Output Current:** 0A to 200A continuous
**Peak Current:** 800A for 200 mS
**Bandwidth (-3dB), Full Signal:** DC to 150 kHz
**Small Signal:** 20Vp-p to 250kHz
**Supply Voltage:** 3-phase 200/400V ±10%,
**Dimensions (DxHxW):** 28 x 69.25 x 22 in. (71.1 x 175.9 x 55.9 cm)
**Weight:** Approximately 850 lbs. (386 kg)

### Manufacturer Specific Standards
Audi I EE-32 (2006-06)
BMW GS 95003-2 (2010-01)
BMW GS 95024-2-1 (2010-01)
BMW GS 95024-2-2 (2011-01)
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
Fiat 9-90110 Issue 13 (2007-03)
Ford CS-2009.1 (2-11-2010)
General Motors GMW3172_H (July 2010)
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)
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)
Toyota TSC70212G (2007-06)
Volkswagen VW 80101 (2009-03)
Volkswagen VW 80000 (2009-10)

### Common Data (all models)
**Output Range:** –80V to +80V
**Source Impedance:** 3 mV + 2.2 µH
**Operation:** 4-quadrant, bi-polar operation
**Output Rise Time:** <3 µS
**Remote Control:** LAN
**Cooling:** Internal forced-air fans
**Protection:** Over/under voltage, over current, over temperature
**Trigger:** Automatic repeat, manual trigger
**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
**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)