



## HVR 2000RG High-Voltage Ripple Generator System



### System Features:

- Easy-to-use software reduces user training time
- Multi-layer current protection
- Greater system uptime
- Customizable test modifications
- No recurring license fees
- Small in-lab footprint

### Key Performance Capabilities:

#### AC Ripple

- From 10 Hz to 200 kHz
- Up to 50 Vp, 60 Ap
- Adjustable ripple current limit

### STANDARDS TESTING LIST Comprehensive Solution for:

MBN LV123	VW 80300
ISO 21498-2	VW 80303
MAN CVS 43:2021-01	Stellantis CS.00245

High-voltage ripple testing is a rapidly growing automotive and aviation test requirement. With the **HVR 2000RG**, AE Techron introduces a test system designed for high-voltage ripple testing that provides unparalleled accuracy and efficiency in assessing EV component immunity to ripple voltages.

Focused on standards compliance, this system offers ease of use, rugged construction, and comprehensive system protec-

tions and limits. The HVR 2000RG is designed to be forgiving of accidental misuse while being safe for the user and for the equipment being tested.

When compared to other options, this system features reduced user training time, greater system up time, customizable test modifications, no recurring license fees (future updates to standards are included in the initial purchase price), and a small in-lab footprint.

## Specifications

### PERFORMANCE

**Voltage Output Range, AC:** 0 – 50Vp  
**Output Current Range, AC:** 0 – 50Ap, 60Ap  
**Ripple Bandwidth:** 10 Hz to 200 kHz  
**DC Source Impedance:** 1.7 - 2700Ω\*  
**Operation, AC:** 4-quadrant, bi-polar operation  
**Output Rise Time, DC Supply:** 10 ms from 10% to 90% of full scale voltage

### INPUT AND OUTPUT CONNECTORS

System,

**Output, DUT Supply +/-:** High-voltage barrier block connectors, accepts up to 6 AWG  
**Voltage Monitor:** Unbalanced BNC connector; 20V/V  
**Current Monitor:** Unbalanced BNC connector; 20A/V  
**Keyboard:** USB connector on cabinet back  
**Mouse:** USB connector on cabinet back  
**USB Drive:** USB connector on cabinet back  
**Video Output:** HDMI connector on cabinet back  
**LAN:** RJ-45 connector on cabinet back

Signal Generator,

**Signal Input:** Unbalanced BNC used for factory diagnostics  
**Signal Output:** Unbalanced BNC (analog – 10Vp)

DC Supply: USB port for factory configuration

### STATUS DISPLAYS

**Signal Generator:** LEDs for Power, System Fault, Signal-In Enabled

**Amplifier:** LEDs for Run/Standby status, Signal presence/Overload condition, Power Supply Fault, Overtemp/Over Current

### CONTROLS

Software,

**Trigger:** User, GPIO or LAN  
**Loop:** Fixed, variable, scripted variable  
**Template:** Creation and playback

**Remote Output:** GPIO or LAN

**Signal Generator:** Front-panel on/off power switch

**Amplifier:** Front-panel Run/Standby switch

### PROTECTION

Amplifier,

**Over/Under Voltage:** ±10% from specified supply voltage amplifier is forced to Standby

**Over Current:** Breaker protection on both main power and low-voltage supplies

**Over Temperature:** Separate output transistor, heat sink, and transformer temperature monitoring and protection

### PHYSICAL CHARACTERISTICS

**AC Supply Requirements:** 3-phase 400V-480V AC ±10%, 30A, 50/60 Hz

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)

**Cooling:** Forced-air fans

**Dimensions (HxWxD):** 49.64 x 22.22 x 39.58 inches (126.09 x 56.44 x 100.53 cm)

**Weight:** Approximately 300 lbs. (136 kg)

\* For high-voltage ripple testing, this impedance value will change.



## HVR 1000CS and 2000CS: High-Voltage Ripple Test Systems

- We offer the HVR 1000CS or HVR 2000CS as complete ripple test systems, that include a DC power supply.
- Both systems offer adjustable DC current limit and have bi-directional DC capability.

### HVR 1000CS:

- **Output Voltage:** up to 1000V
- **Power/Current:** up to 60 kW, 160A DC (higher voltage options available)

### HVR 2000CS:

- **Output Voltage:** up to 2000V
- **Power/Current:** up to 60 kW, 80A DC (higher voltage options available)