343A DC Voltage Calibrator

0 to 1100 V output, 0 to 25 mA
0.1 ppm resolution, seven decades
20 ppm basic accuracy
Stability: better than 5 ppm/month, 15 ppm/month

The 343A is a 7-digit instrument with a basic accuracy of 20 ppm and a resolution of 1 µV on the 10 µV range.
Cleanness of the dc output is evident in the combined ripple and noise specifications of 50 µV rms from the 343A. Short term jitter and other random excursions are almost non-existent, less than 1 ppm.
A simple amplifier/comparator circuit is utilized to establish a convenient, variable, current limiter. Any maximum current output from 1 to 30 mA may be set via a front panel control. In addition to providing for current protection to the load, a failsafe “crowbar” protects the series-pass elements from damage should the total voltage across the elements exceed a safe level.

**Specifications**

**Output Voltage:** 0 to 1100 V
**Resolution:** 1 µV on 10 V range, 10 µV on 100 V range, 100 µV on 1000 V range

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**Uncertainty, 90 Days**

<table>
<thead>
<tr>
<th>Time</th>
<th>10 V Range</th>
<th>100 V Range</th>
<th>1000 V Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per Hour</td>
<td>0.005% or 0.0005% or 0.0005% or 0.0005% or 20 µV</td>
<td></td>
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<tr>
<td>Per Month</td>
<td>0.0015% or 0.0015% or 0.0015% or 0.0015% or 25 µV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per 6 Months</td>
<td>0.0025% or 0.0025% or 0.0025% or 0.0025% or 40 µV</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Whichever is greater*

**Temperature Coefficient:** ±(3 ppm of setting +0.1 ppm of range +2 µV) per degree Celsius from 24°C to 15°C or 25°C to 35°C
**Regulation:** <0.0005% of setting +25 µV for a 10% line voltage change or a full-load to no-load change
**Isolation:** May be floated 500 V from chassis
**Settling Time:** Within 15 ppm of final output in 5 seconds
**Overcurrent Protection:** Automatically limits output current at any preset level between 1 mA and 30 mA via continuously variable front panel control. Panel lamp illuminates during limiting.
**Meter:** Switch-selectable to full range voltage or full range current

**Remote Sense:** Separate terminals are provided for sensing the output voltage directly at the load
**Temperature:** 0°C to 50°C, operating
**Power:** 115 or 230 VAC ±10%, 50 to 440 Hz, approximately 60 VA fully loaded
**Size:** 8.9 cm H x 43.2 cm W x 45.7 cm D (3.5 in H x 17 in W x 18 in D)
**Weight:** 10.43 kg (23 lb)

**Included with Instrument:** Instruction Manual, power cord, serialized and dated calibration certificate

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**Ordering Information**

**Model**
343A DC Voltage Calibrator

**January 1990 prices**
343A DC Voltage Calibrator

**Accessories** (Also see Section 17)
MEE-7001 3½" Rackmount Kit............. $120
MEE-8078 24" Rack Slide for rackmount kit.......................... $140
MEE-8079 18" Rack Slide for rackmount kit.......................... $150

**Customer Support Services**

**Warranty**
One-year product warranty. See Section 16 for further information on warranty terms and conditions.

**Extended Warranty**
A 10% discount is available when you order the following at the time of the instrument purchase or when ordered within the factory warranty period.

SC1-343A Repair.......................... $231
SC2-343A Calibration.................. $252
SC3-343A Full Service................... $455
SC4-343A Performance Verification-Plus $151

Note: Incoming and/or outgoing calibration readings are available as an option.