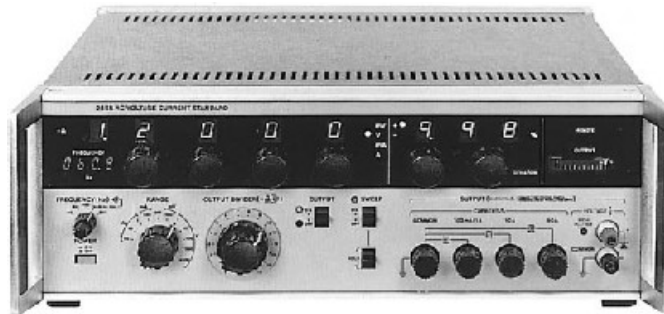


VOLTAGE/CURRENT STANDARDS



2558

2558 AC Voltage/ Current Standard



2558
438 × 149 × 415 mm 23 kg
(17-1/4 × 5-7/8 × 16-3/8" 50.7 lbs)

The 2558 is a precision, stable AC Voltage and Current source. Output voltage or current set using front-panel dials is controlled by digital signals through photocouplers and microprocessors, and displayed on a red 5-digit LED.

- **±0.08% accuracy**
- **1 mV to 1,200 V in 6 ranges, 1 mA to 60 A in 4 ranges**
- **Frequency ranges — 50, 60, 400 Hz or 40 to 500 Hz continuously variable**
External oscillator can also be used on 40 to 800 Hz frequency ranges.
- **Overvoltage and overcurrent protection**
- **Sweep mode**
- **Large output capacity — 30 V max. on 100 mA range, 0.5 A max. on 1 V range**
- **% Deviation readout**
- **Output divider**
- **Remote control and programming using IEEE-488 interface (optional)**

SPECIFICATIONS

Output:

Range	*Output	Resolution	Maximum Output (approx.)
100 mV	1.00 to 120.00 mV	10 μV	10 Ω (output resistance)
1 V	0.0100 to 1.2000 V	100 μV	0.5 A
10 V	0.100 to 12.000 V	1 mV	3 A
100 V	1.00 to 120.00 V	10 mV	0.3 A
300 V	3.0 to 360.0 V	100 mV	0.1 A
1,000 V	10.0 to 1,200.0 V	100 mV	6 mA
100 mA	1.00 to 120.00 mA	10 μA	30 V
1 A	0.0100 to 1.2000 A	100 μA	30 V
10 A	0.100 to 12.000 A	1 mA	3 V
50 A	0.50 to 60.00 A	10 mA	0.6 V

*May be set to zero with settings of less than 1% of range.

Accuracy: 50 or 60 Hz... ±(0.08% of setting + 0.015% of range) on all except 50 A range, ±(0.15% of setting + 0.015% of range) on 50 A range, 400 Hz... ±(0.1% of setting + 0.015% of range) on all except 50 A range, ±(0.2% of setting + 0.015% of range) on 50 A range

Note: Output at less than 20% of range, 50 or 60 Hz... ±0.02% of range on all except 50 A range, ±0.04% of range on 50 A range, 400 Hz... ±0.03% of range on all except 50 A range, ±0.06% of range on 50 A range

Distortion: Voltage output... 0.07% of range, current output... 0.18% of range, at output from 40 to 120% of range

Note: Above accuracies and distortion apply at the following

reference standard conditions:

Output frequency... 50, 60 or 400 Hz generated by internal oscillator, 23±3°C, less than 75% relative humidity, power supply voltage fluctuation... within ±10% of rated value, load... less than 6 VA on all except 1,000 V and 100 mA ranges, less than 1.2 VA on 1,000 V range, less than 0.2 VA on 100 mA range

Output Voltage/Current Setting: 4 dials on the front panel (opto-setting using photocouplers), highest dial... 0 to 12 in 13 steps, 3 least dials... 0 to 9 in 10 steps

Setting Value Indication: 5-digit red LED display

Output Unit Marks: mV, V, mA or A

DIVIDER Output:

DIVIDER output = output V/A setting × n/m, m and n are selectable by OUTPUT DIVIDER dual-in-one dial, m... 1, 2 through 15 in 15 uniform divisions, n... 0, 1 through 15 (n ≤ m)

Accuracy of Output Divider: Within ±1 digit of LSD

Stability: ±0.03% of range/hour

Calibration Cycle: 3 months

% DEVIATION Setting: 2 dials on the front panel (opto-setting using photocouplers), up to 9.99% of output setting

% DEVIATION Indication: 3-digit LED display up to 9.99% indication

SWEEP Speed: Approx. 16 s for sweep from 0 to 100% of setting or 100% to 0

Frequency Range (Sine Wave): Internal oscillator... 50 Hz ±1%, 60 Hz ±1%, 400 Hz ±1%, or 40 to 500 Hz continuously variable using FREQUENCY dual dial

Output Frequency Indication: 4-digit LED display (indication accuracy... ±0.1 Hz on 40 to 100 Hz, ±0.2 Hz on 100 to 500 Hz, ±0.6 Hz on 500 to 800 Hz)

Response Time: Approx 3 s for output of 0 to 100% of setting

Temperature Coefficient of Output: ±50 ppm of range/°C at 5 to 20°C, 26 to 40°C

Output Terminal: Grounded

Insulation Resistance: More than 100 MΩ at 500 V DC between power line and output terminals, and between power line and case

Dielectric Strength: 1,500 V AC for one minute between power line and output terminals, and between power line and case

Power Requirements: 100, 120, 200, 220 or 240 V AC (must be specified), 50 and 60 Hz

Power Consumption: Approx. 200 VA

OPTION

General Purpose Interface Bus (GP-IB)... 255801

Functional, Electrical and Mechanical Specifications:

Meets the IEEE Standard 488-1978, interface function and identification... SH 1, AH 1, T 6, T 5, L 4, SR 1, RL 1, PP 0, DC 1, DT 1, C0

Interconnected Devices: 0 up to 15 maximum.

Notes: 1. GP-IB should always be ordered together with the standard instrument since the combination instrument will be tested at YOKOGAWA.

2. Interface cable to controller is not provided with the 255801 (must be prepared by user).