



mode. In this mode the voltage of the negative output can be set lower than that of the positive output. The tracking ratio control allows the negative supply's output to be set to any value between a maximum that is within $\pm 5\%$ of the positive supply's output and a minimum that is less than 0.5 volts. Once a ratio is established by the tracking ratio control, the ratio of the positive output voltage to the negative output voltage remains constant as the $\pm 20V$ voltage control varies the 0 to +20V output over its range.

The front panel also contains a line switch, three overload indicators for +6V output, +20V output, and -20V output, a voltmeter and an ammeter, and three push-button meter switches. The push buttons select one of the supply's three outputs for display. The voltmeter and ammeter always monitor any one supply simultaneously. In addition to the standard 115 Vac $\pm 10\%$ 47 to 63 Hz input, two other line voltage options

are available for nominal inputs of 100 and 230 Vac. The supply is furnished with a detachable 3-wire grounding type line cord. The ac line fuse is in an extractor type fuseholder on the rear heat sink.

LINE FUSE

The line fuse is located by the ac line receptacle. Check the rating of the line fuse and replace it with the correct fuse if necessary as indicated below. These are slow-blow fuses.

Line Voltage	Fuse	Agilent Part No.
100/115 Vac	1.6 A	2110-0918
230 Vac	1.0 A	2110-0599

SPECIFICATIONS

Table 1 lists detailed specifications for the power supply.

Table 1. Specifications

<p>AC INPUT</p> <p><u>Standard:</u> 115 Vac $\pm 10\%$, 47-63 Hz, 115 VA, 84 W</p> <p><u>OE9:</u> 100 Vac $\pm 10\%$, 47-63 Hz, 115 VA, 84 W</p> <p><u>OE3:</u> 230 Vac $\pm 10\%$, 47-63 Hz, 115 VA, 84 W</p> <p>DC OUTPUT and OVERLOAD PROTECTION</p> <p><u>0 to ± 20 V Outputs:</u> Maximum rated output current is 0.5 A. Short circuit output current is 0.55 A $\pm 5\%$ and a fixed current limit circuit limits the output of each supply to this maximum at any output voltage setting. Unbalanced loads within current rating are permitted.</p> <p><u>0 to +6 V Output:</u> Maximum rated output current is 2.5 A at 6 V. The maximum available output current decreases with the output voltage setting. A current foldback circuit limits the output to 2.75 A $\pm 5\%$ at 6 volts and, with decreasing voltage, reduces the current limit linearly to 1 A $\pm 15\%$ at zero volts (short circuited).</p> <p>TRACKING ACCURACY</p> <p>The +20 V and -20 V outputs track within 1% with the TRACKING ratio control in the Fixed position. (In variable tracking ratio mode, the negative tracking output can be adjusted from less than 0.5 V to within $\pm 5\%$ of the setting of the positive output.)</p> <p>LOAD REGULATION</p> <p><u>All Outputs:</u> Less than 0.01% plus 2 mV for a full load to no load change in output current.</p> <p>LINE REGULATION</p> <p><u>All Outputs:</u> Less than 0.01% plus 2 mV for any line voltage change within rating.</p> <p>PARD (Ripple and Noise)</p> <p><u>All Outputs:</u> Less than 0.35 mV rms/1.5 mV p-p (20 Hz-20 MHz).</p> <p><u>Common Mode Current (CMI):</u> Less than 1 μA for all outputs (20 Hz-20 MHz).</p>	<p>OPERATING TEMPERATURE RANGE</p> <p>0 to 40 $^{\circ}$C for full rated output. At higher temperatures, output current is derated linearly to 50% at 55 $^{\circ}$C maximum temperature.</p> <p>TEMPERATURE COEFFICIENT</p> <p><u>All Outputs:</u> Less than 0.02% plus 1 mV voltage change per $^{\circ}$C over the operating range from 0 to 40 $^{\circ}$C after 30 minutes warm-up.</p> <p>STABILITY (OUTPUT DRIFT)</p> <p><u>All Outputs:</u> Less than 0.1% plus 5 mV (dc to 20 Hz) during 8 hours at constant line, load and ambient after an initial warm-up time of 30 minutes.</p> <p>LOAD TRANSIENT RESPONSE TIME</p> <p><u>All Outputs:</u> Less than 50 μsec for output recovery to within 15 mV of nominal output voltage following a load change from full load to half load, or vice versa.</p> <p>OUTPUT VOLTAGE OVERSHOOT</p> <p><u>All Outputs:</u> During turn-on or turn-off of ac power, output plus overshoot will not exceed 1 V if the output control is set for less than 1 V. If the control is set for 1 V or higher, there is no overshoot.</p> <p>METER ACCURACY: $\pm(0.5\%$ of output + 2 counts) at 25$^{\circ}$C$\pm 5^{\circ}$C</p> <p>METER RESOLUTION</p> <p><u>All Output:</u> <u>Voltage</u> 10 mV <u>Current</u> 10 mA</p> <p>DIMENSIONS</p> <p>212.3 mmW x 88.1 mmH x 269.2 mmD (8.354 inW x 3.469 inH x 10.591 inD)</p> <p>WEIGHT: 3.8 kg(8.4 lbs) net, 5.1 kg(11.3 lbs) shipping</p>
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