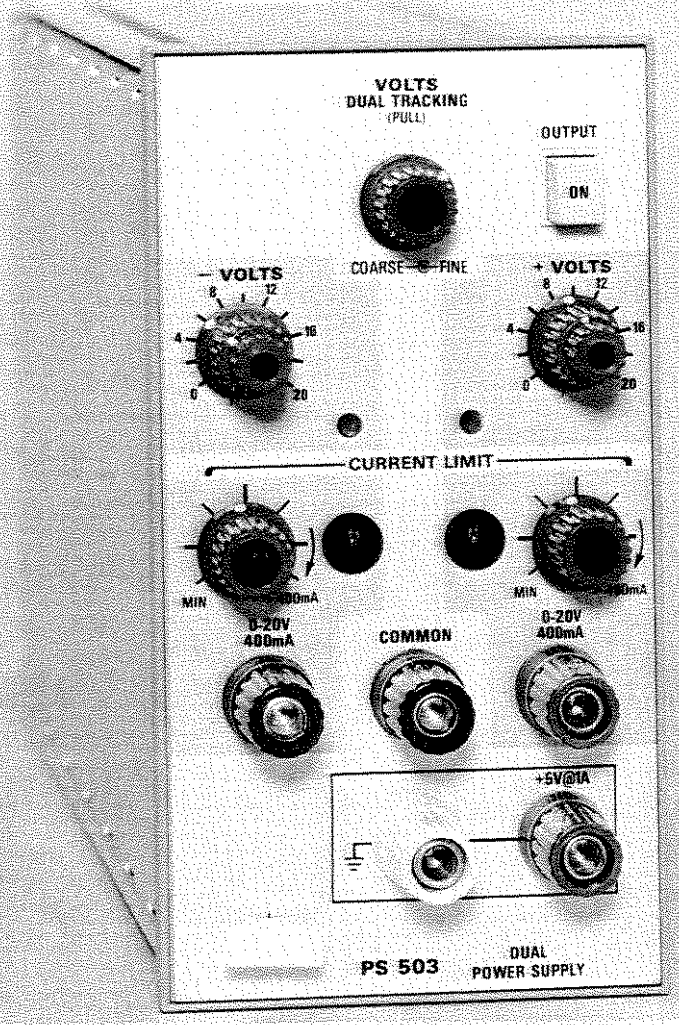
VOLTS
DUAL TRACKING
(PULL)
OUTPUT
ON
COARSE
FINE
– VOLTS
+ VOLTS
4
8
12
16
0
20
CURRENT LIMIT
MIN
0-20V
400mA
COMMON
+5V@1A
PS 503
DUAL
POWER SUPPLY

Ⓐ

ELECTRICAL CHARACTERISTICS

Performance Conditions

The electrical characteristics are valid only if the instrument has been calibrated at an ambient temperature between +20°C and +30°C and is operating at an ambient temperature between 0°C and +50°C unless otherwise noted.

20 V Floating Supplies

OUTPUTS: 0 to at least 20 VDC with respect to the common terminal or 0 to 40 VDC across the plus and minus terminals. Outputs either independently variable or both variable at a constant ratio by a common control. Both supplies insulated for 350 V (DC + peak AC) above ground. Each supply has continuously variable current-limiting from 0 to at least 400 mA.

MINIMUM RESOLUTION: 10 mV.

LOAD REGULATION: Within 1 mV with a 400 mA load change.

LINE REGULATION: Within 5 mV for a ±10% line voltage change.

RIPPLE AND NOISE: 0.5 mV P-P or less. 0.1 mV RMS or less.

TEMPERATURE COEFFICIENT: 0.01%/°C or less.

STABILITY: 0.1% + 5 mV or less drift in 8 hours at constant line, load and temperature.

TRANSIENT RECOVERY TIME: 20 μs or less for a constant voltage to recover within 20 mV of nominal output voltage after a 400 mA change in output current.

+5 V Ground-Referenced Supply[1]

OUTPUT (+20°C to +30°C): 4.8 VDC to 5.2 VDC at 1 A.

LOAD REGULATION: Within 100 mV with a 1 A load change.

LINE REGULATION (+20°C to +30°C): Within 50 mV for a ±10% line voltage change.

RIPPLE AND NOISE (1 A): 5 mV P-P or less. 100 μV RMS or less.

STABILITY: 0.5% or less drift.

OVERLOAD PROTECTION: Automatic current limiting and over-temperature shutdown.

[1] **For additional information refer to National Semiconductor Corp. specifications for the LM309K 5 V Regulator Integrated Circuit.**