



**Advanced Test Equipment Rentals**

**[www.atecorp.com](http://www.atecorp.com) 800-404-ATEC (2832)**

## SWINGER TWO GENERAL DESCRIPTION

Swinger Two is a floating electronic load for testing DC sources in both static and dynamic conditions. The Swinger Two family offers six models—each with multiple current ranges and measuring voltage ranges covering a range span from 600 milliamps to 300 Amps full scale at power levels from 300 watts to 2500 watts. Operating voltages range from 1 volt to 150 volts. Swinger Two may be operated either in a constant current or resistive mode.

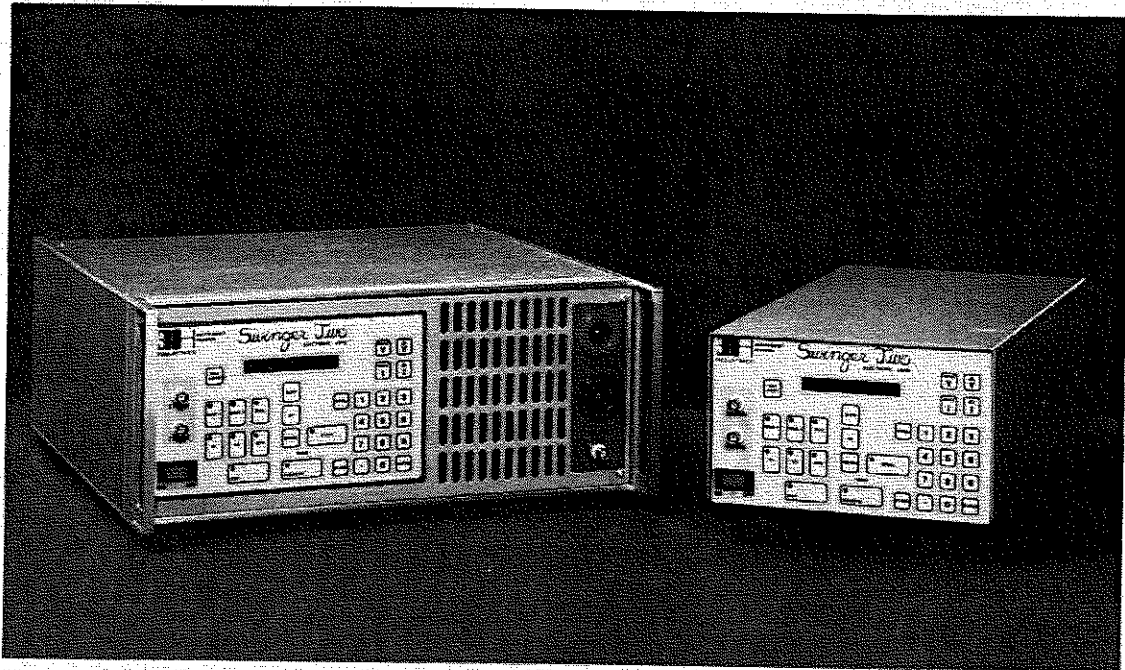
For incorporation into automatic test or burn-in systems, all functions can be controlled from an IEEE bus. In benchtop operation, a front panel keyboard and display allow the user to define the desired load (including its slew rate) and to measure conditions with single keystrokes.

In the dynamic mode, for example, the alphanumeric display will automatically scroll through a setup procedure by asking the user to key in the desired parameters such as high current level, low current level, high current time duration, low current time duration, and the independent slew rates of both rise and fall. Up to two complete waveforms (WAVE 1 and 2) may be stored for instant recall for loading—including a dual mode that will cause the load to continuously alternate between the two waveforms. A slew mode with up and down keys also allows the user to vary any of the parameters continuously or in small discrete steps while applying the load.

Multi-range measurement of current, voltage (with remote sensing), and dynamic load regulation are rapidly and precisely made and displayed using an internal 12-bit A/D converter and microprocessor. Dynamic load regulation is calculated from voltage measurements at both high and low current levels and then displayed.

For reliable long-life operation, Swinger Two is protected against reverse voltage, over-voltage, over-power, and over-temperature. In addition, the output stage is optically isolated from the control section (including the IEEE control), providing a true floating load.

All of the above features plus self-test, error indicating messages, and ease of operation make Swinger Two a simple to operate and, yet, a powerful instrument!



PARAMETER	MODEL																																															
	SW2-100	SW2-200	SW2-300																																													
MAXIMUM CURRENT	100A	200A	300A																																													
MAXIMUM OPERATING VOLTAGE	50V	50V	50V																																													
MINIMUM OPERATING VOLTAGE	SEE PAGE 14 FOR EXAMPLE: 1.5V at 50A 3V at 100A	SEE PAGE 14 FOR EXAMPLE: 1.5V at 100A 3V at 200A	SEE PAGE 14 FOR EXAMPLE: 1.5V at 150A 3V at 300A																																													
MAXIMUM CONTINUOUS POWER	1000W SEE PAGE 14	1500W SEE PAGE 14	2500W SEE PAGE 14																																													
CURRENT WAVEFORM DEFINITION																																																
CONSTANT CURRENT OR RESISTIVE MODE	<table border="1"> <thead> <tr> <th></th> <th>FULL RANGE</th> <th>SCALE</th> <th>RES.</th> <th>ACC.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10A</td> <td>10mA</td> <td>1%±</td> <td>50mA</td> </tr> <tr> <td>2</td> <td>100A</td> <td>100mA</td> <td>1%±</td> <td>200mA</td> </tr> </tbody> </table>		FULL RANGE	SCALE	RES.	ACC.	1	10A	10mA	1%±	50mA	2	100A	100mA	1%±	200mA	<table border="1"> <thead> <tr> <th></th> <th>FULL RANGE</th> <th>SCALE</th> <th>RES.</th> <th>ACC.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>20A</td> <td>20mA</td> <td>1%±</td> <td>100mA</td> </tr> <tr> <td>2</td> <td>200A</td> <td>200mA</td> <td>1%±</td> <td>400mA</td> </tr> </tbody> </table>		FULL RANGE	SCALE	RES.	ACC.	1	20A	20mA	1%±	100mA	2	200A	200mA	1%±	400mA	<table border="1"> <thead> <tr> <th></th> <th>FULL RANGE</th> <th>SCALE</th> <th>RES.</th> <th>ACC.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>30A</td> <td>30mA</td> <td>1%±</td> <td>200mA</td> </tr> <tr> <td>2</td> <td>300A</td> <td>300mA</td> <td>1%±</td> <td>600mA</td> </tr> </tbody> </table>		FULL RANGE	SCALE	RES.	ACC.	1	30A	30mA	1%±	200mA	2	300A	300mA	1%±	600mA
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OVERSHOOT (POS. OR NEG.)	0.5%	0.5%	0.5%																																													

PARAMETER	MODEL								
	SW2-100			SW2-200			SW2-300		
VOLTAGE MEASURE	RANGE	FULL SCALE	ACC.	RANGE	FULL SCALE	ACC.	RANGE	FULL SCALE	ACC.
	1	6V	0.3%± .1% FS	1	6V	0.3%± .1% FS	1	6V	0.3%± .1% FS
	2	20	0.3%± .1% FS	2	20	0.3%± .1% FS	2	20	0.3%± .1% FS
	3	60V	0.3%± .1% FS	3	60V	0.3%± .1% FS	3	60V	0.3%± .1% FS
CURRENT MEASURE	RANGE	FULL SCALE	ACC.	RANGE	FULL SCALE	ACC.	RANGE	FULL SCALE	ACC.
	1	10A	1%± 50mA	1	20A	1%± 100mA	1	30A	1%± 200mA
	2	100A	1%± 200mA	2	200A	1%± 400mA	2	300A	1%± 600mA
CONTROL WAVEFORM (I PROG)	CURRENT RANGE	FULL SCALE	ACC.	CURRENT RANGE	FULL SCALE	ACC.	CURRENT RANGE	FULL SCALE	ACC.
	100A	5V	1%± 50mV	200A	5V	1%± 50mV	300A	5V	1%± 50mV
ACTUAL CURRENT WAVEFORM (I MEAS)	CURRENT RANGE	FULL SCALE	ACC.	CURRENT RANGE	FULL SCALE	ACC.	CURRENT RANGE	FULL SCALE	ACC.
	100A	5V	1%± 10mV	200A	5V	1%± 10mV	300A	5V	1%± 10mV
FULL FORCING & MEASURING IEEE CONTROL	YES SEE PAGE 15&16			YES SEE PAGE 15&16			YES SEE PAGE 15&16		
OUTPUT LOAD FLOATING AND ISOLATED FROM IEEE CONTROL	YES			YES			YES		
OVER VOLTAGE PROTECTION	YES			YES			YES		
OVER CURRENT PROTECTION	YES			YES			YES		
OVER POWER PROTECTION	YES			YES			YES		
OVER TEMPERATURE PROTECTION	YES			YES			YES		
REVERSE POLARITY PROTECTION	YES			YES			YES		
INPUT POWER	115/230V 47-63HZ			115/230V 47-63HZ			115/230V 47-63HZ		
SIZE	W D H 17 x 15 x 7			W D H 17 x 17 x 7			W D H 17 x 17 x 10 1/2		
WEIGHT	26 LB.			32 LB.			47 LB.		