

### 3.2. 3780 Functional Specifications

INPUT		
Voltage	115/230 VAC ± 15%, automatically selected	
Frequency	50/60 Hz ± 5%	
Fuse	15 Amp, slow-blow 250VAC	
DIELECTRIC WITHSTAND TEST MODE		
Output Rating	5000V @ 100 mA AC	
Voltage Setting	Range:	0 – 5.00KV AC
	Resolution:	0.01KV
	Accuracy:	± (2% of setting + 0.01KV) (Adjustable during operation. Disabled when key lockout is active.)
Maximum Limit AC	Range:	0.00 – 99.99 mA
	Resolution:	0.01 mA
Minimum Limit AC	Range:	0.000 – 9.999 mA
	Resolution:	0.001 mA
	Accuracy:	± (2% of setting + 6 counts)
Arc Detection	Range:	0 – 9, 0 disabled
Failure Detector	Audible and Visual	
Ground Fault Interrupt	GFI Trip Current: 450µA max HV Shut Down Speed: <1ms	
Voltage Display	Range:	0.00 – 5.00KV AC
	Resolution:	0.01KV
	Accuracy:	± (2% of reading + 0.01KV)

## DIELECTRIC WITHSTAND TEST MODE

Current Display	Auto Range	
AC	Range 1:	0.000mA – 3.500mA
	Resolution:	0.001mA
	Accuracy:	$\pm (2\% \text{ of setting} + 2 \text{ counts})$
	Range 2:	3.00 – 99.99 mA
	Resolution:	0.01 mA
	Accuracy:	$\pm (2\% \text{ of setting} + 6 \text{ counts})$
AC Voltage Wave Form	Sine Wave, Crest Factor = 1.3 – 1.5	
Output Frequency	Range:	50 or 60 Hz, User Selectable
	Accuracy:	$\pm 0.1\%$
Output Voltage Regulation	$\pm (1\% \text{ of output} + 5 \text{ volts})$ from no load to full load and over input voltage range.	
Dwell Timer	Range:	0, 0.3 – 999.9 sec (0 = Constant)
	Resolution:	0.1 sec
	Accuracy:	$\pm (0.1\% \text{ of reading} + 0.05 \text{ sec})$
Ramp Timer	Range:	Ramp-Up: 0.1 – 999.9 sec Ramp-Down: AC 0.0 – 999.9 sec
	Resolution:	0.1 sec
	Accuracy:	$\pm (0.1\% \text{ of reading} + 0.05 \text{ sec})$
Ground Continuity Current	DC 0.1 A $\pm 0.01A$ , fixed	
Ground Continuity	Range:	0.0 $\Omega$ - 1.50 $\Omega$
Maximum Limit	Resolution:	0.01 $\Omega$
Minimum Limit	Accuracy:	$\pm (3\% \text{ of setting} + 0.02\Omega)$
Ground Continuity	Range:	0.0 $\Omega$ - 0.50 $\Omega$
Auto Offset	Resolution:	0.01 $\Omega$
	Accuracy:	$\pm (3\% \text{ of setting} + 0.02\Omega)$
Output Short Circuit Current	> 200mA	

<b>GENERAL</b>	
Remote Input-Output Control	The following input and output signals are provided through two 9 pin D-type connectors: 1. Remote control: Test, Reset, and Remote Interlock. 2. Remote recall of memory program 1, 2 and 3 3. Outputs: Pass, Fail, Test-in-Process, and Reset
Program Memory	10 memories, 3 steps per memory, all steps within a memory are linkable.
Security	Key Lock capability to avoid unauthorized access to all test parameters. Memory Lock capability to avoid unauthorized access to memory locations.
Ground Fault Interrupt	Built-in Smart GFI circuit
Display	128 x 64 dot resolution with front panel contrast setting.
Alarm Volume Setting	Front panel adjustable volume setting with 10 set points.
Line Cord	Detachable 7 ft. (2.13m) power cable terminated in a three prong grounding plug.
Terminations	Detachable 5ft.(1.52m) high voltage and return leads (2) with clips and a standard U.S. style (NEMA 5-15) remote receptacle box for testing items terminated with a line cord. International receptacles also available. Front and Rear outputs standard.
Mechanical	Tilt up front feet. Dimensions: (W x H x D) (215 x 89 x 370 mm) (3705,3765,3770) Dimensions: (W x H x D) (430 x 133 x 350 mm) (3780) Weight: 20.96 lbs. (9.53Kgs) (3705,3765,3770) Weight: 49lbs. (22.23Kgs) (3780)
Environmental	Operating Temperature : (0° - 40°C) Relative Humidity - 0 to 80%
Calibration	Traceable to National Institute of Standards and Technology (NIST). Calibration controlled by software. Adjustments are made through front panel keypad in a restricted access calibration mode. Calibration information stored in non-volatile memory.