

Multifunction Safety Compliance Analyzer SME1180 Series



Advance Features

- Seven-in-one comprehensive test system with the following functions:
 - 1 AC Withstand Voltage test
 - 2 DC withstand Voltage test
 - 3 Insulation resistance test
 - 4 Ground bond test
 - 5 Continuity test
 - 6 Leakage current test
 - 7 Electrical performance test
- 500VA power AC Withstand Voltage
- Maximum Voltage 5kV for Insulation Resistance test
- 500VA high-power AC power output (SME1180 & SME1180A)
- Single screen display test mode, time, voltage, current, resistance value, test steps
- Leakage current supports a variety of human body impedance simulation resistance (MD)
- Open/short circuit detection OSC
- ARC detection function
- Crash Voltage test function
- List display function: Simultaneously display the test results of multi-step settings and sequential execution
- Storage: 100 files, 50 steps/file
- 7-inch capacitive touch screen, 800×480 resolution Linux operating system

Technical Specifications			SME1180	SME1181	SME1180A	SME1181A	
Withstand Voltage Test							
Output Voltage	AC	Range	0.05 ~ 5.0kV				
		Waveform	50/60Hz ± 0.1% Sine Wave				
		Output Power	500VA (5.0kV / 100mA)	200VA	500VA	200VA	
	DC	Range	0.05 ~ 6.0kV				
		Output Power	150VA (6.0kV / 25mA)	120VA	150VA	120VA	
		Load Change Rate	± (1% set value + 10V) Rated Power				
	Voltage Resolution	2V					
	Voltage Accuracy	± (1% set value + 5V)					
Output Current	AC	Range	V ≤ 4kV	0.001mA ~ 120mA	0.001mA ~ 40mA	0.001mA ~ 120mA	0.001mA ~ 40mA
			V ≤ 4kV	0.001mA ~ 100mA	0.001mA ~ 40mA	0.001mA ~ 100mA	0.001mA ~ 40mA
		Resolution	0.001mA				
		Accuracy	120mA	0.1mA ~ 120.0mA ± (1% Reading + 0.6mA)			
	30mA		0.01mA ~ 29.99mA ± (1% Reading + 0.15mA)				
	3mA		0.001mA ~ 2.999mA ± (1% Reading + 0.015mA)				
	DC	Range	V ≥ 1.5kV	0.0001mA ~ 25mA	0.0001mA ~ 12mA	0.0001mA ~ 25mA	0.0001mA ~ 20mA
V < 1.5kV			0.001mA ~ 20mA	0.0001mA ~ 12mA	0.0001mA ~ 20mA	0.0001mA ~ 10mA	

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	Resolution		0.1 μ A				
		Accuracy	25mA	0.01mA ~ 25.00mA \pm (1% Reading + 0.12mA)			
			3mA	0.001mA ~ 2.999mA \pm (1% Reading + 0.015mA)			
		5.1 μ A	0.1 μ A ~ 299.9 μ A \pm (1% Reading + 1.5 μ A)				
Time Setting	Testing Time		0.3 ~ 999s, 0 means continuous testing				
	Rise Time / Fall Time		0.3 ~ 999s, 0 means off				
	Waiting time		0.1 ~ 999s, 0 means off (only DC With stand voltage)				
ARC Detection	AC		1.0mA ~ 20.0mA				
	DC		1.0mA ~ 10.0mA				
Maximum short circuit current (AC Test)			200mA	80mA	200mA	80mA	
Quick Discharge Function			Automatic discharge After test (DCW)				
Insulation Resistance Test							
Voltage	Output		DC : 0.05 ~ 5.0kV				
	Resolution		2V				
	Accuracy		\pm (1% Reading + 5V)				
Resistance	Test Range		0.1m Ω ~ 50.0 G Ω				
	Accuracy	V \geq 500V	1m Ω ~ 1G Ω	\pm (3% Reading + 1M)			
			1G Ω ~ 10G Ω	\pm (7% Reading + 0.2G)			
			10G Ω ~ 50G Ω	\pm (10% Reading + 0.5G)			
	V < 500V	1m Ω ~ 1G Ω	\pm (5% Reading + 100V/Vs*10M)				
Time Setting	Testing Time		0.3 ~ 999S, 0 means continues testing				
	Rise Time / Fall Time		0.1 ~ 999S, 0 means off				
	Waiting Time		0.1 ~ 999S, 0 means off				
Quick discharge function			Automatic discharge after test				
AC Ground Bond Test							
Output Current	Range		1.00 ~ 40.00A				
	Resolution		0.01A				
	Accuracy		\pm (2% Set value + 2 D)				
Output Voltage	Range		3.00 ~ 8.00V				
	Resolution		0.01V				
	Accuracy		\pm (2% set value + 3 D)				
Test Frequency			50/60 Hz \pm 0.1%				
Output Regulation			\pm (1% Output Value + 0.02A)				
Resistance Test	Range and Accuracy	1.00 ~ 3.00A	0 ~ 600m Ω \pm (3% Reading + 3 D)				
		3.01 ~ 10.00A	0 ~ 600m Ω \pm (2% Reading + 2 D)				
		10.01 ~ 30.00A	0 ~ 200m Ω \pm (2% Reading + 2 D)				
		30.01 ~ 40.00A	0 ~ 150m Ω \pm (2% Reading + 2 D)				
Test Time			0.5 ~ 999s, 0 means continuous testing				
Continuity test							
Test Current	0.0001A ~ 0.1A		0.00 ~ 10000 Ω				
Resistance Accuracy	0 ~ 1000 Ω		\pm (1% Reading + 3 D)				
	1001 ~ 10000 Ω		\pm (1% Reading + 10 D)				
Test Time			0.3 ~ 999s, 0 means continuous testing				
Electrical Performance Test							
Voltage Test	Range		0.0 ~ 277.0V		-	-	
	Resolution		0.1V		-	-	
	Accuracy		\pm (1.5% Reading + 2 D) (30 ~ 277V)		-	-	
Current Test	Range		0.00 ~ 16.00A		-	-	
	Resolution		0.01A		-	-	
	Accuracy		\pm (2% Reading + 2 D)		-	-	
Power Test	Range		0 ~ 4500W		-	-	
	Resolution		1W		-	-	
	Accuracy		\pm (5% Reading + 3W)		-	-	

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Power Factor	Range		0.000 ~ 1.000		-	-	
	Resolution		0.001		-	-	
	Accuracy		±(8% Reading + 2 D)		-	-	
Leakage Current	Range		0.00 ~ 10.00mA		-	-	
	Resolution		0.01mA		-	-	
	Accuracy		±(2% Reading + 2 D)		-	-	
Test Time			0.1 ~ 999s, 0 means continuous testing		-	-	
Waiting Time			0.2 ~ 999s		-	-	
Leakage Current Test							
Input Voltage	Range		0 ~ 277Vac, 16AacmAx.		-	-	
	Accuracy		± (1.5% Reading + 2 D) (30 ~ 277V)		-	-	
Leakage Current	Test Range		0.0µA ~ 10.00mA		-	-	
	Test Frequency		DC, 15Hz ~ 1MHz		-	-	
Test Time	AC + DC		0.5 ~ 999s, 0 means continues testing		-	-	
	AC / DC		0.1 ~ 999S, 0 means continues testing		-	-	
Waiting Time	AC + DC		0.5 ~ 999s, 0 means continues testing		-	-	
	AC / DC		1.8 ~ 999s Auto Range 1.3 ~ 999s Fixed Range		-	-	
Body Impedance Network (MD)	A :		UL 544NP, UL 484, IEC60598, UL1363, UI923, UL471, UL867, UL697		-	-	
	B :		UL544P		-	-	
	C :		UI2601 - 1, IEC60601, EN60601-1		-	-	
	D :		UL1563		-	-	
	E :		IEC609090Fig4U2, IEC60950-1, IEC60335-1, IEC60598-1, UL484, IEC60065, IEC61010		-	-	
	F :		IEC60990Fig5U3, IEC60598-1		-	-	
	G :		Frequency Detection 1 kΩ		-	-	
MDA-G Devices precision	Resistance Precision		±1%		-	-	
	Capacitance Precision		±5%		-	-	
MD Voltage Protection			30V, Peak Value or 30Vdc		-	-	
30V PeakValue or 30Vdc			G - L, PH - L, PH - PL		-	-	
Leakage Current Range e Effective Value RMS	MD Main Resistance		Range		-	-	
	0.5kΩ / 1kΩ / 1.5kΩ		0.0µA ~ 10.00mA		-	-	
	Resolution	Auto Range & Fixed Range 1 - 2 & Fixed Range 3 (1k & 1.5kMD)		< 1000µA	0.1µA	-	-
				1000µA ~ 8400µA	1µA	-	-
				> 8400µA	0.01mA	-	-
				< 8400µA	1µA	-	-
		Fixed range 3 (0.5 kMD) & Fixed Range 4 - 6		> 8400µA	0.01mA	-	-
	Range Accuracy	Rang 1- 5	AC + DC	Frequency	Accuracy	-	-
				DC	±(2% Reading + 3 D)	-	-
			AC only	15Hz < f < 100kHz	±(2% Reading + 3 D)	-	-
				100kHz ≤ f ≤ 1MHz	±(5% Reading) > 10.0µA	-	-
				15Hz < f ≤ 30Hz	± (3% Reading + 5 D)	-	-
			DC only	30Hz < f < 100kHz	± (2% Reading + 3 D)	-	-
				100kHz ≤ f ≤ 1MHz	±(5% Reading) > 10.0µA	-	-
Range 6			AC + DC	DC	± (2% Reading + 3 D) > 10.0 µA	-	-
				15Hz < f < 100kHz		-	-
			AC Only	15Hz < f ≤ 30Hz		±(5% Reading) > 10.0µA	-
	30Hz < f < 100kHz	-		-			
DC only	DC	-	-				
	DC	-	-				

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Leakage Current Range Peak Value PEAK	MD Main Resistance		Range		-	-	-	
	0.5kΩ / 1kΩ / 1.5kΩ		0.0μA ~ 10.00mA		-	-	-	
	Resolution	Auto Range & Fixed Range 1 - 2 & Fixed Range 3 (1k & 1.5kMD)		< 1000μA	0.1μA	-	-	-
				< 1000μA ~ 8400μA	1A	-	-	-
				> 8400μA	0.01mA	-	-	-
		Fixed range 3 (0.5 kMD) & Fixed Range 4 - 6		< 8400μA	1μA	-	-	-
	> 8400μA			0.01mA	-	-	-	
	Range Accuracy	Range	Test Mode	Frequency	Accuracy	-	-	-
		Rang 1- 5	AC + DC	DC	±(2% Reading+ 2μA)	-	-	-
				15Hz ≤ f ≤ 1MHz	±(10% Reading + 2μA)	-	-	-
				15Hz < f < 1MHz	±(10% Reading + 2μA)	-	-	-
		Range 6	AC + DC	DC	±(2% Reading + 3D)	-	-	-
15Hz < f < 100kHz				±(10% Reading + 2D)	-	-	-	
15Hz < f < 100kHz	±(10% Reading + 2D)			-	-	-		
Leakage Voltage Range Effective Value RMS	MD Main Resistance		Range		-	-	-	
	0.5kΩ / 1kΩ / 1.5kΩ		0.0mV ~ 15.00V		-	-	-	
	Resolution	Auto Range & Fixed Range 1 - 2 & Fixed Range 3 (1k & 1.5kMD)		< 1000mV	0.1mV	-	-	-
				< 1000mV ~ 8400mV	1mV	-	-	-
				> 8400mV	0.01V	-	-	-
		Fixed range 3 (0.5 kMD) & Fixed Range 4 - 6		< 8400mV	1mV	-	-	-
	> 8400mV			0.01V	-	-	-	
	Range Accuracy	Range	Test Mode	Frequency	Accuracy	-	-	-
		Rang 1- 5	AC + DC	DC	± (2% Reading + 3D)	-	-	-
				15Hz < f < 100kHz	± (2% Reading + 3D)	-	-	-
				100kHz ≤ f ≤ 1MHz	± (5% Reading) > 10.0μA	-	-	-
			AC only	15Hz < f ≤ 30Hz	± (3% Reading + 5D)	-	-	-
30Hz < f < 100kHz				± (2% Reading + 3D)	-	-	-	
100kHz ≤ f ≤ 1MHz				± (5% Reading) > 10.0mV	-	-	-	
Range 6		AC + DC	DC	± (2% Reading + 3D) > 10.0mV	-	-	-	
			15Hz < f < 100kHz					
		AC Only	15Hz < f ≤ 30Hz					
	30Hz < f < 100kHz							
DC only	DC	± (2% Reading + 3D) > 10.0mV	-	-	-	-		
	DC	± (5% Reading) > 10.0mV	-	-	-	-		
Leakage Voltage Range Peak Value PEAK	MD Main Resistance		Range		-	-	-	
	0.5kΩ / 1kΩ / 1.5kΩ		0.0mV ~ 15.00V		-	-	-	
	Resolution	Auto Range & Fixed Range 1 - 2 & Fixed Range 3 (1k & 1.5kMD)		< 1000mV	0.1mV	-	-	-
				< 1000mV~8400mV	1mV	-	-	-
				> 8400mV	0.01V	-	-	-
		Fixed range 3 (0.5kMD) & Fixed Range 4 - 6		< 8400mV	1mV	-	-	-
	> 8400mV			0.01V	-	-	-	
	Range Accuracy	Range	Test Mode	Frequency	Accuracy	-	-	-
		Rang 1- 5	AC + DC	DC	± (2% Reading+ 2mV)	-	-	-
				15Hz ≤ f ≤ 1MHz	± (10% Reading + 2mV)	-	-	-
				15Hz < f < 1MHz	± (10% Reading + 2mV)	-	-	-
		Range 6	AC + DC	DC	± (2% Reading + 3 D)	-	-	-
15Hz < f < 100kHz				± (10% Reading + 2 D)	-	-	-	
15Hz < f < 100kHz	± (10% Reading + 2 D)			-	-	-		
OSC Open and Short Circuit Detection								
Sampling Standard Capacitance Range			0.001 ~ 40nF					
Open Circuit Judgment Range			10% ~ 100%					
Short Circuit Judgment Range			100% ~ 500%					

Technical Specifications	SME1180	SME1181	SME1180A	SME1181A
Safety Protection Function				
Electric Shock Protection	0.5mA ± 0.25mA Option: on or off			
Start Protection Interlock	The pin is grounded to allow high voltage output			
Panel Operation Protection	Key Lock			
Alarm Indication	Pass : short tone, green light, Fail : long tone, red light			
Electrical and leakage power short circuit protection	23Arms or Electric shock 68A PEAK			
Hipot and Ground Synchronous Output Test	5kVac / 30mAac and 30Aac / 150mΩ			
Storage and Interface				
Internal Memory Storage	100 files, 50 steps per file			
Standard Interface	RS232, USB Device, USB Host, LAN, Handler			
Optional Interface	GPIB			
Temperature and Humidity				
Operating Temperature	0°C ~ 45°C, Humidity : 20% ~ 90% RH			
Storage Temperature	-10°C ~ 55°C, Humidity : 80% RH			
General Specifications				
Power Supply	100V ~ 240VAC, 47Hz ~ 63Hz			
Power	Power : 1200W, No load < 100W			
Size (W X H X D)	430mm x 132mm x 550 mm			
Weight	40kg	38kg	34kg	32kg

Subject to change

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