

EEC EST-300 Series Hipot Tester

Datasheet



As Compact and Versatile As Ever

The EST-300 next-generation Hipot tester combines industry-leading compact size with unbeatable performance. This new series economically integrates AC, DC withstand, and insulation resistance into a single solution. The Hipot tester is highly portable and fits readily in any spatially limited testing environment. The EST-300 series provides a robust set of features that includes high output rating, ARC detection, ramp-high, charge-low, and fast discharge to enhance overall testing efficiency and safety by preventing the common errors and detecting any dielectric breakdowns during tests on the DUT. The interconnecting function allows expansion with a ground bond tester, offering a more complete testing system for added safety.

Features

Thinner, Lighter and Safer

- Designed with the dimensions of piece of A4 paper, it is extremely compact in size for operational flexibility.
- The tester fully integrates AC/DC withstand, and insulation resistance testing features into a single solution.
- Weighing only 5.5 kg, it is one of the lightest 3-in-1 Hipot testers available on the market, delivering extreme portability to the manufacturing floor.
- The EST-300 series is a world-class reliable safety tester certified by TUV (TUV EN 61326-1).

Efficiency in Every Detail

- Ramp-high and charge-low functions increase testing efficiency by eliminating common misjudgment errors from the DUT's test results that can occur during current overshoots and faulty connections.
- EEC-exclusive patented fast discharge function helps the DUT efficiently released excess electricity within 50ms to ensure maximum safety for operators.
- Unmatched quality assurance with ARC detection capability eliminates poor gap spacing that can cause dielectric breakdowns
- Future-proof your safety testing with expandable interconnecting capability to a ground bond testing machine for more complete testing.



MODEL	EST-310	EST-320	EST-330
INPUT RATING			
Voltage (AC)	100 - 120Vac / 200 - 240Vac±10% Auto Range		
Apparent Power	360 VA		
Frequency	50/60 Hz ± 5%		
AC WITHSTAND VOLTAGE			
Output Rating	5KVAC / 20mA		
Output Voltage Range	0 - 5.00 kVac		
Voltage Resolution	0.01 kVac		
Voltage Accuracy	(1% of setting + 0.5% of Range)		
Output Frequency	50Hz / 60Hz ± 0.1%		
Output Waveform	Sine Wave, Crest Factor = 1.3 - 1.5		
Output Regulation	± (1% of output + 5V), From no load to full load		
Current Measurement Range	0.000 - 20.00 mA		
Current Resolution	0.001 / 0.01 mA		
Current Accuracy	0.000 - 4.000 mA 3.50 - 20.00 mA	(1% of reading + 1% of Range)	
Ramp Up Timer	0.1 - 999.9s		
Ramp Down Timer	0 - 999.9s		
Dwell Timer	0, 0.3 - 999.9s , (0 = continuous)		
Timer Resolution	0.1 s		
Timer Accuracy	± (0.1% of setting + 0.05s)		
Arc Detection	The range is from 1 - 9 (9 is the most sensitive)		
DC WITHSTAND VOLTAGE			
Output Rating	-	-	6KVDC / 7.5 mA
Output Voltage Range	-	-	0 - 6.00 kVdc
Voltage Resolution	-	-	0.01 kVdc
Voltage Accuracy	-	-	(1% of setting + 0.5% of Range)
Output Ripple	-	-	< 5% (6KV / 7.5 mA at Resistive Load)
Current Measurement Range	-	-	0.0 - 7.5 mA
Current Resolution	-	-	0.1µA/0.001mA/0.01 mA
Current Accuracy	0.0 - 400.0µA 0.35 - 4.00 mA 3.50 - 7.50 mA	-	(1% of reading + 1% of Range)
Ramp Up Timer	-	-	0.1 - 999.9s
Ramp Down Timer	-	-	0, 1.0 - 999.9s
Dwell Timer	-	-	0, 0.4 - 999.9s , (0 = continuous)
Timer Resolution	-	-	0.1s
Timer Accuracy	-	-	± (0.1% of setting + 0.05s)
Ramp-HI Current Range	-	-	0.0 - 7.5 mA
Charge-LO Current Range	-	-	0.0 - 350.0uA or Auto Set
Discharge Time	-	-	< 50 msec for no load ¹
Arc Detection	-	-	The range is from 1 - 9 (9 is the most sensitive)
INSULATION RESISTANCE			
Output Rating	-	-	1KVDC / 50 GΩ
Output Voltage Range	-	-	30 - 1 KVdc
Voltage Resolution	-	-	1 Vdc
Voltage Accuracy	-	-	(1% of setting + 0.5% of Range)
Resistance Measurement Range	-	-	0.100 MΩ - 50 GΩ
Resistance Resolution	-	-	0.001 / 0.01 / 0.1 / 1 MΩ

MODEL		EST-310	EST-320	EST-330
Resistance Accuracy ²	0.100 - 999.9 MΩ under 30-499V	-		±(7% of reading+0.1% of Range)
	1 - 10 GΩ under 30-499V	-		±(15% of reading+0.1% of Range)
	0.500 - 999.9 MΩ under 500-1000V	-		±(2% of reading+0.1% of Range)
	1 - 9.999 GΩ under 500-1000V	-		±(5% of reading+0.1% of Range)
	10 - 50 GΩ under 500-1000V	-		±(15% of reading+0.1% of Range)
Ramp Up Timer		-		0.1 - 999.9s
Ramp Down Timer		-		0, 1.0 - 999.9s , (0 = OFF)
Dwell Timer		-		0, 0.5 - 999.9s , (0=continuous)
Delay Timer		-		0.5 - 999.9s
Timer Resolution		-		0.1s
Timer Accuracy		-		± (0.1% of setting + 0.05s)
Charge-Lo Current		-		0.000 - 3.500 μA or Auto Set
GENERAL				
Interface		USB , PLC Remote		
Memory		30 steps (Maximum 30 Steps in one File)		
Display		4.3" Color Display (Touch Panel)		
Safety		Built-in Smart GFI circuit, GFI trip current 450μA max		
Language		English, Traditional Chinese, Simplified Chinese, Japanese		
Security		Screen lock		
Environment		0 - 40°C, 20 - 80%RH		
Dimension (W x H x D), mm		215 x 88.1 x 300		
Net Weight		5.46 Kg		

¹ Discharge time < 100 msec for capacitor load (1μF < 1KV, 0.75μF < 2KV, 0.5μF < 3KV, 0.08μF < 4KV, 0.04μF < 5KV, 0.015uF < 6KV)

² Environment requirement: humidity < 60% RH (no condensation, no scanner), When I < 150nA.

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