2. SPECIFICATIONS

Model		TOS8650	TOS8651
Test voltage	Applied voltage (AC)	0 - 1.5/0 - 5 kV	0 - 2.5/0 - 5 kV
	Output	500 VA (5 kV, 100 mA), when operated on 100-V AC line. (Note 1)	
	Waveform	AC line voltage waveform	
	Voltage regulation (with 100-V AC line)	20 % or better	15% or better (Note 2)
		(For change from maximum rated load to no load)	
	Switching	Zero-turn-on switch (zero-start switch) is used.	
Current limiting		○ A limiting resistor is inserted in the primary circuit of high voltage transformer. ○ When cut-off current setting is 100 mA, current limiting is released unconditionally. When it is 0.5 - 10 mA, current limiting is selectable.	
Output voltmeter	Scales	1.5/5 kV FS	2.5/5 kV FS
	Class	JIS Class 1.5	JIS Class 1
	Accuracy	±3% FS	
	Response/ graduation	Mean-value response/rms-value graduation	
	Calibration		Can be calibrated from rear panel
Judgement of test result (Shut-off of output by leak current detection)	Judgement system	○ Window comparator system ○ NG judgement when current larger than the set value is detected ○ NG judgement when detected current is less than 1/10 of the set value ○ When NG judgement is made, the output is cut out and an NG alarm is generated. ○ If no abnormal state is found during the set period, the GOOD signal is generated.	

Model		TOS8650	TOS8651
Judgement of test result (Cont'd)	Reference value setting	0.5, 1, 2, 5, 10, or 100 mA	
	Multiplier	○ Each of the above setting values can be multiplied up to 2.5 times continuously variably, except the 100 mA range. ○ The scales are non-calibrated.	
	Accuracy of judgement (Note 3)	○ With reference to high limit (set value): ±5% ○ With reference to low limit (1/10 of set value): ±(20% + 20 μA)	
	Detection system	Absolute value of leakage current is integrated and compared with the reference value.	
	Calibration	Calibrated for rms value of sine wave, using pure resistive load.	
			Can be calibrated for individual ranges from the rear panel.
	No-load output voltage needed for detection (Note 4)	500 V when at 100-mA setting	300 V when at 100-mA setting
Dimensions (Maximum dimensions)		350 W × 200 H × 300 D mm (13.78 W × 7.87 H × 11.81 D in.) 360 W × 220 H × 355 D mm (14.17 W × 8.66 H × 13.98 D in.)	
Weight (Note 7)		Approx. 19 kg (42 lb)	Approx. 17 kg (38 lb)

Note 1: The period during which the Testers can be continuously operated with their maximum rated currents are as follows:
- ○ TOS8650: Up to 30 minutes
- ○ TOS8651: Up to 60 minutes

Note 2: Model TOS8651 Tester is a special model for special voltage regulation specifications, which are as follows when the Tester is operated on a 100-V AC line with its current limiting switch set to the OFF state.

- At 5-kV range, 5-kV output, for current change from 100 mA to no load: 15% or better

- At 5-kV range, 5-kV output, for current change from 10 mA to no load: 2% or better

- At 2.5-kV range, 1-kV output, for current change from 5 mA to no load: 3% or better

Note 3: When a test is actually done, the current which flows through the stray capacitances of the output circuit and measuring leads also causes measuring errors. The overall judgement error is the sum of this current and the above-mentioned judgement accuracy. Approximate values of such currents are shown in the following table. Note that, at high-sensitivity high-voltage test, the current which flows through the stray capacitances becomes larger than the low-limit judgement value and low-limit judgement may not be successfully made.

Output Voltage	1 kV	2 kV	3 kV	4 kV	5 kV
Main unit only (without measuring leads)	4 μA	8 μA	12 μA	16 μA	20 μA
When 300-mm-long leads are used being suspended in air	6 μA	12 μA	18 μA	24 μA	30 μA
When the accessory lead-wires (HTL-1.5W) are used	20 μA	40 μA	60 μA	80 μA	100 μA

Note 4: Due to the internal resistance of the output circuit, to make NG judgement with the output terminals shorted, a certain level of no-load output voltage is needed. The values of such voltages are shown in the preceding table.