

## **SPECIFICATIONS**

**Reference Conditions:** 23°C ± 5°C (30 to 50% RH) range. Add 25ppm/°C from -10° to 18°C and 28° to 50°C to all accuracy specifications. No external electrical or magnetic fields. Output current ≤150 mA for VT/PT and ≤ 50mA for CT. Calibration cycle is 1 year.

### **3.1 DTR® 8510 Specifications**

<b>DTR® 8510</b>		
<b>ELECTRICAL</b>		
<b>Ratio Range (VT/PT)</b>	Autoranging: 0.8000 to 8000:1	
<b>Accuracy (VT/PT)</b>	<b>Ratio Range</b>	<b>Accuracy (% of Reading)</b>
	0.8000 to 9.9999	± 0.2%
	10.000 to 999.99	± 0.1%
	1000.0 to 4999.9	± 0.2%
	5000.0 to 8000.0	± 0.25%
<b>Ratio Range (CT)</b>	Autoranging: 0.8000 to 1000.0	
<b>Accuracy (CT)</b>	<b>Ratio Range</b>	<b>Accuracy (% of Reading)</b>
	0.8000 to 1000.0	± 0.5%
<b>Excitation Signal</b>	VT/PT Mode: 32Vrms max CT Mode: Auto Level 0 to 1A, 0.1 to 4.5Vrms	
<b>Excitation Current Display</b>	Range: 0 to 1000mA Accuracy: ± (2% of Reading + 2mA)	
<b>Excitation Frequency</b>	70Hz	
<b>Display</b>	Dual line alpha-numeric LCD, 16x2 characters with contrast adjustment and backlight control. Day/night visible.	
<b>Measurement Method</b>	In accordance with IEEE Std C57.12.90™-2006	
<b>Power Source</b>	Two 12V, 5x2, 1650mAH NiMH rechargeable battery packs	
<b>Battery Life</b>	Up to 10 hrs of continuous operation. Low battery indication.	
<b>Battery Charger</b>	Universal input (90 to 264Vrms input) smart recharger	
<b>Charging Time</b>	< 4 hrs	
<b>Data Storage</b>	99 objects with 99 tests each	
<b>Date/ Time</b>	Battery-backed, Real-time clock	

<b>Communication</b>	USB. 2.0 compliant, optically isolated, 115.2 KB
<b>Software</b>	DataView® analysis software included
<b>MECHANICAL</b>	
<b>Dimensions</b>	10.70 x 9.76 x 5.12" (272 x 248 x 130 mm)
<b>Weight</b>	8.1 lbs (3.7kg)
<b>Connection</b>	XLR connectors
<b>Leads</b>	15 ft (4.6m) H & X shielded with large color-coded industrial alligator clips in carrying bag
<b>Enclosure</b>	Heavy duty Polypropylene case, UL 94 V0
<b>Vibration</b>	IEC 68-2-6 (1.5mm to 55Hz)
<b>Shock</b>	IEC 68-2-27 (30G)
<b>Drop</b>	IEC 68-2-32 (1m)
<b>Index of Protection</b>	IP 40 (Instrument lid open) per EN 60529 IP 53 (Instrument lid closed) per EN 60529
<b>ENVIRONMENTAL</b>	
<b>Operating Temperature</b>	14° to 122°F (-10° to 50°C)
<b>Storage Temperature</b>	-4° to 140°F (-20° to 60°C)
<b>Relative Humidity</b>	10 to 85% RH @ 35°C
<b>Altitude</b>	Up to 2000 meters (6560 ft)
<b>SAFETY</b>	
<b>Safety Rating</b>	EN 61010-1; 50V CAT IV; Pollution Degree 2
<b>Double Insulated</b>	Yes

*Specifications are subject to change without notice.*

### 3.2 Battery Charger Specifications

DTR® 8510 BATTERY CHARGER	
ELECTRICAL	
No-load Voltage	41V ±2V
Fast Charge Current	0.9A ±70mA
Top-off Charge	130mA ±40mA
Charge Termination Options	-dV, dT/dt
Input Rating	90 to 264VAc/47 to 63Hz
Maximum Output Power	35W
Trickle Charge Current	50mA ±25mA
Leakage Current (from battery with mains off)	<1mA
MECHANICAL	
Dimensions	4.22 x 2.64 x 1.44" (107 x 67 x 36.5mm)
Weight	0.55 lbs (250g)
Input Connection	2-pin IEC 320-C7
Output Connection	NiMH: 3 PIN DIN
ENVIRONMENTAL	
Operating Temperature	-4° to 104°F (-20° to 40°C)
SAFETY	
Insulation Class	II
Electrical Safety Approval	EN 60601-1, EN 60950, EN 60335-2-29
EMC Standards	EN 61000-6-3 (Emission), EN 61000-6-1 (Immunity)

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