

3M 711 Charge Analyzer Properties

Property	Typical Values
Dimensions	Base unit: (152 x 152 x 152) mm, (6 x 6 x 6) inches
Weight	1.6 kg (3.53 lbs.)
High Voltage Power Supply (internal)	> 1100 V positive or negative (current limiting resistor: 10 M _Ω)
Low Voltage Power Supplies	Built-in NiMH-rechargeable batteries, 1400 mAh AC/DC Adapter: secondary side, DC 12 V/500 mA
Operating Time (rechargeable batteries)	4 hours (approximately) with full charge
Storage Memory Capacity	128 k EEPROM (e.g. sufficient for approximately 100 CPM-measurements)
Response Time	0 to 100 % _ 100 ms
Impedance	1015 _Ω (Teflon-separators cleaned)
Accuracy	\pm 2.5% of range end value (digitized) \pm 5% for the analog output
Operating Functions	CPM (positive/negative/automatic), voltmeter and fieldmeter
Interfaces	Analog output \pm 2 V (\pm 1 V, in 500 V range for voltmeter), serial PC-COM, and external field sensor type 711 RS
Displays	Two, 11-segment positive & negative LED-bar charge indicators 16-digit alphanumeric dual row LCD
Settings – CPM Operating Function	Starting voltage: 600 V – 1200 V n 1 V-steps Stop voltage: 1 V – 500 V in 1 V-steps (in decimal mode)
Static Decay Time	0.1 seconds – 99.9 seconds
Offset-Voltage Time	1 – 10 seconds in 1 second steps and 10 – 60 seconds in 10 seconds steps
Voltmeter Operating Function	Ranges: 25 V, 100 V, 500 V, 1.0 kV, 5.0 kV and auto range
Fieldmeter Operating Function	Ranges: Manual 1.25 kV/m, 5 kV/m, 25 kV/m, 50 kV/m, 250 kV/m, and automatic
Plate Electrode	VA-steel (152 x 152) mm/(6 x 6) inches, removable, capacitance (20 \pm 2) pF
Cup Electrode	Gold-plated electrode with 4mm-banana socket, for voltage measurements
Selection of Operating Function	Pre-setting is "FIELDMETER", additional automatic settings by applying the plate or cup electrode
Operating Temp.	32°F to 113°F (0 - 45°C)
Humidity	Maximum 60% Note: At high relative humidity, charge leakage may occur affecting the decay time measurement
Storage Temperature	-22°F to 140°F (-30 - 60°C)
Declaration of Conformity	EN 60204-1/85 EN 60204-1/91 EN 61010 (SAFETY) EN 50082-1 EN 50082-2