



SURGE TESTERS / medical defibrillation-proof testers

MegaPulse Defib-5

FAST

SAFE

RELIABLE



IEC 60601-1 Issue 3 Defib-Proof Tester

FEATURES

Surge Tester built to the requirements of IEC 60601-1:2005 (Issue 3) Figure 10 (IEC 60601-1 Figure 50 in older versions). Optionally can conduct IEC 60601-1:2006 Figure 11; IEC 60601-2-34; IEC 60601-2-49; IEC 60601-2-27; EC-13; and EC-53. All these tests use the same 5000V source with differences in output waveshaping. The options include the various waveshaping output circuits required for each test.

Energy Measurement is now required by IEC 60601-1:2005. The Defib-5 is completely redesigned to allow accurate energy measurement during the test. With an oscilloscope connected to the energy measurement output jack on the Defib-5 rear panel, accurate energy measurements are assured by our redesigned resistor bank which not only measures 100 ohms statically when checked before each test, but remains within 5% of the nominal value while the test is being conducted, which is essential for accurate energy measurement.

Our capacitor bank and inductor designs are correctly sized to maintain correct output in accordance with circuit simulations. The Defib-5 is the best defib-proof tester available.



The blue box that tests. And tests.

MegaPulse Defib-5



FEATURES ▾

Output:	5000 V voltage source with output shaping network and evaluation network to perform in accordance with IEC 60601-1:2005 Figure 10. Options include waveshaping circuits for IEC 60601-1:2006 Figure 11; IEC 60601-2-27, -2-49, -2-34; EC-13 and EC-53. New design resistor bank, inductor and capacitors allow output to be in accordance with circuit simulations. (Circuit simulations required for referee output because Standards only include circuit diagrams, but not waveform outputs.)
Energy Measurement Port:	Energy Measurement of the output pulse is now required by IEC 60601-1 Figure 10. The Defib-5 resistor bank is stable within 5% of nominal value while the pulse is being delivered, and while the energy measurement information is being gathered. Since circuit resistance is part of the formula for calculation of energy, it is imperative that this resistance be stable for accurate results. Option DGSB allows automated Energy measurement as well as Waveform capture and retrieval.
Resistor Bank:	Provided with heavy duty resistor bank to allow 30 second duty cycles between pulses. Option FCD allows 12 second continuous duty resistor bank is available and is also equipped with our comparator-fired 5000V autotrigger circuit for very repeatable output voltage delivery.
Capacitor Bank:	Standard: 20,000 cycle maintenance interval. Option FCD: 2.5M cycle maintenance interval.



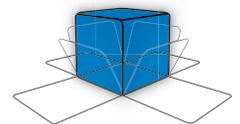
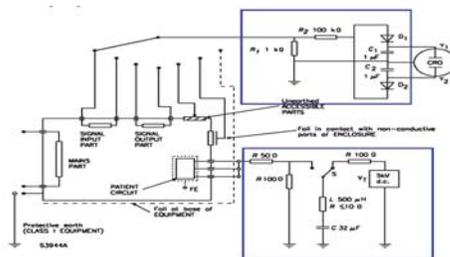
Defib-5 Reference: **AVAILABLE OPTIONS ▾** An optional source connected in place of the DUT to validate the test setup, and ensure the correct function of the Defib-5's voltage shaping circuit and evaluation network.

RI:	PLC Interface Relay Board.
FCD:	12 sec charge; autotrigger; heavy duty capacitor bank.
MP240:	240V mains. (220V on request)
TMMD:	MegaPulse TestMinder Computer Control with Test Sequence Autorun capability.
27:	IEC 60601-2-27 Testing.
13:	EC-13/EC-53/IEC60601-1 Fig. 11/IEC60601-2-49 Testing.
DGSB:	LabView driver and switch box; allows energy measurement calculations via computer as well as waveform capture and retrieval. Check hardware requirements carefully.



CIRCUIT (IEC 60601-1 Fig. 10) ▾

The Defib-5 includes all circuitry shown in the blue boxes.



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