Function Tester **DP-300**

Testing system for function tests of defibrillators / external cardiac pacemakers and ECG simulation

- ☑ line- and accumulator operation
- ☑ cursor driven menu or PC control
- ☑ graphical display of the discharge plot
- ☑ measuring of pulsed biphasic is possible
- ☑ ECG ouput for all ECG revulsions
- ☑ stop clock function for charge and discharge times
- ☑ user specific language settings

Test and measurement technic
for medicine and industry

Management System ISO 9001:2008
TÜVRheinland ZERTIFIZIERT
www.tuv.com ID 0910095181

S.P.L. Elektronik

Technical Data

Line voltage:	83 – 264 V ac, 50 / 60 Hz or internal accumulator operation
Nominal power:	max. 25 VA
Protection class:	1
Environmental temperature:	+5 - +40 °C
Storage temperature:	-10 - +50 °C
Function:	
DEFI	asynchronously, synchronously, biphasic
Measurement at:	50 Ohm
Measurement range:	Range1 ± 403 V Range2 ± 4440 V 0 – 89 A 0 – 1000 J
Sensitivity:	1 V
Measuring time:	20 ms, dt 20 µs
PACE	transthoracic, intracardial
Measurement at:	50 – 1600 Ohm in 50 Ohm steps
Voltage measurement:	0,1 – 277,5 V automatic measuring change - over
Frequency measurement:	30 – 800 BPM
AV delay time:	10 – 400 ms
Demand frequency:	55 – 65 BPM
Inhibition frequency:	55 – 65 BPM
Refractory time:	50 – 400 ms
Sensitivity:	0,5 – 25 mV
ECG	12 channel ECG
Pulse forms:	sinus, square sinus, triangle, rectangle, trapeze, ISO, ventricular fibrillations (VF), ventricular tachykardie (VT), line frequency, QRS

	range	error
DEFI		
Resistor:	50 Ohm	± 1 %
Energy	0 – 1000 Joule	± 1 Joule or ± 1 % of. measurement value
Pulse voltage range1:	0 - 403 V	± 1 V or ± 1 % of measurement value
Pulse voltage range2:	0 - 4440 V	± 1 V or ± 1 % of measurement value
Pulse width:	0 – 20 ms	± 0,1 ms or ± 2 % of measurement value
Pulse delay time:	0 – 100 ms	± 0,1 ms or ± 2 % of measurement value
PACE		
Pulse voltage:	0,1 - 277 V	± 0,1 V or ± 5 % of measurement value
Pulse length:	0,1 – 250 ms	± 1 ms or ± 5 % of measurement value
Frequency measuring:	30 – 800 BPM	± 1 BPM or ± 1 % of measurement value

Interface:	1 x RS-232 for PC-connection
Testing device connection:	2 Paddle sensor components with integrated 4 mm sockets for DEFI 4 sockets 4 mm for PACE 10 sockets 4 mm for ECG
Digital display:	4 x 20 char display
Keyboard:	6 key foil keyboard
Accessories:	1 x RS-232 interface cable Line cable 10 x STA8
Mechanical data:	Light weight metal case IP20
Dimensions:	235 x 130 x 310 mm (W x H x D)
Weight:	approx. 2 kg
Selectable languages:	german, english, french, polish, spanish, italian, portuguese, turkish

DP-300 is a defibrillator testing system for the examination of defibrillators, external cardiac pacemakers and is useful as test generator for ELECTRO-CARDIOGRAM (ECG) functions. It can be operated with main voltage and with internal accumulators.

The defibrillator testing system can be used as stand alone device and with PC.

The DP-300 as defibrillator testing device is in use for the functional test of external monophasic, biphasic and pulsed biphasic defibrillators. The delivered defibrillator energy is measured on a load resistance of 50 Ohm, furthermore the voltage curve can be displayed graphically when operating with PC.

The tests can be done in the synchronous and asynchronous mode. Synchronous mode differs between paddle synchronous and monitor synchronous defibrillators.

DP-300 as cardiac pacemaker testing device serves for the functional test of external one circuit or dual circuit cardiac pacemakers for intracardial or transthoracic stimulation, operating with asynchronous or demand pulses. The pulse amplitude, the pulse time, the pulse frequency and the AV delay time could be measured, furthermore it is possible to determine the refractory time, the sensitivity and the demand frequency automatically with a programmable test signal.

ECG stimulation serves for ECG impulse output to defibrillators and ECG. The pulse parameters are variable.

(The specified measuring accuracy refers to the measuring element. Technical modifications and errors reserved. 02/2013)

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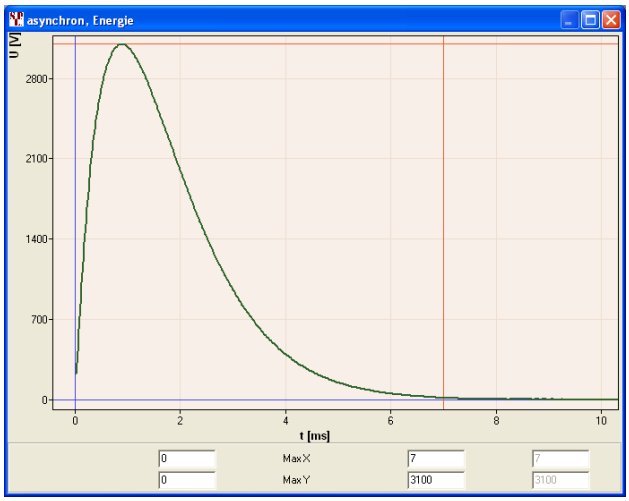
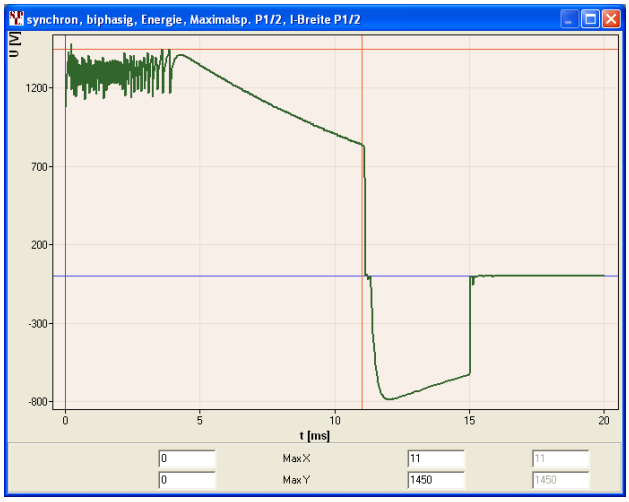
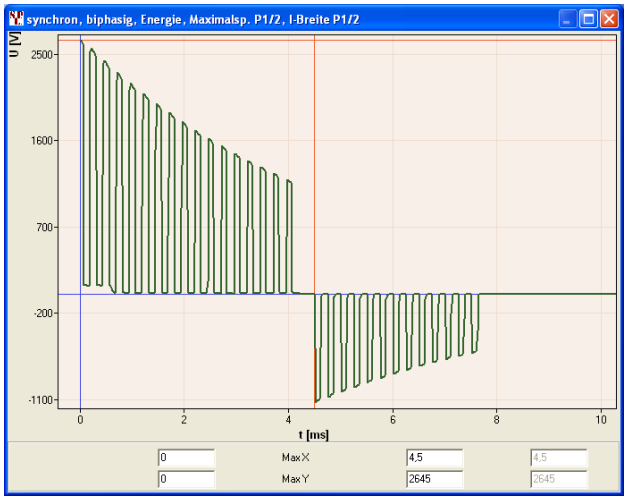
Technical Data



discharge plot of
Hellige DEFIPORT SCP 844
at 320 J, measured with ACTIMED 3



discharge plot of
PRIMEDIC HeartSave AED-M
at 360 J, measured with ACTIMED 3



discharge plot of
Schiller FRED easy
at 150 J, measured with ACTIMED 3

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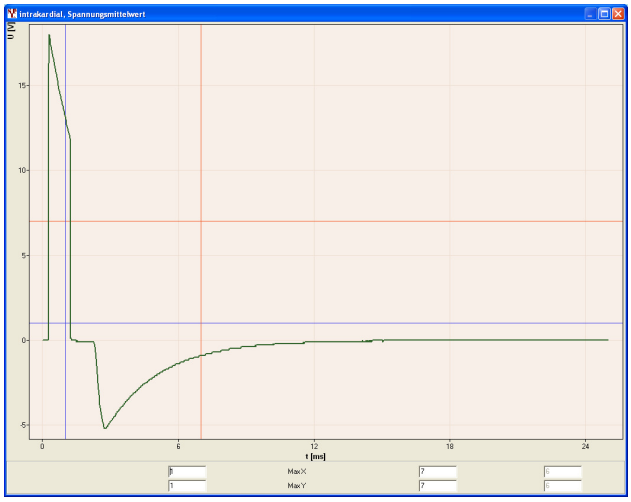
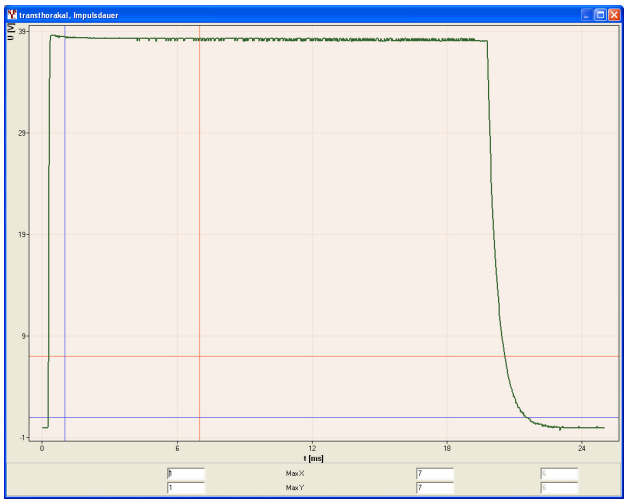


Intracardial chart



transthoracic chart

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