Function Tester **DP-300**

Testing system for function tests of defibrillators, external cardiac pacemakers and ECG simulation in accordance to IEC 60601-2-4 / IEC 60601-2-31

- ☑ 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

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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 ± 400 V Range2 ± 4000 V 0 – 80 A 0 – 1000 J
Sensitivity:	1 V
Measuring time:	24/48 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 – 1200 BPM
AV delay time:	10 – 400 ms
Demand frequency:	55 – 100 BPM
Inhibition frequency:	55 – 100 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, NSR

	range	error
DEFI		
Resistor:	50 Ohm	± 1 %
Energy	0 – 1000 Joule	± 1 Joule or ± 1 % of. measurement value
Pulse width:	0 – 48 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 – 1200 BPM	± 1 BPM or ± 0,5 % of measurement value
Time Measurement:	1 – 1000 sek	± 1 %

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 a test generator for the Electro-Cardiogram (ECG) functions. It can be operated with main voltage and with internal accumulators.

The defibrillator testing system can be used as a stand-alone device, but also in connection with the PC.

The DP-300, as a defibrillator testing device, is in use for the functional testing 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 graphically displayed 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 a cardiac pacemaker testing device, serves for the functional testing 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 simulation 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. 07/2023)

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