

# QED 6

## Defibrillator Analyzer

### Technical Data



The QED 6 provides a scalable solution to accurately test defibrillators. Lightweight and portable, the QED 6 measures a wide range of defibrillator energy output parameters.

An RS-232 serial port supports remote computer control and test documentation.

### Key features

- Defibrillator Analyzer
- Monophasic and biphasic dc energy measurement
- Energy and cardioversion measurement
- Peak voltage, peak current, and overshoot measurement
- 2-line x 24-character display
- Bidirectional RS-232 port for computer control
- Storage and playback of output waveform so results can be viewed in greater detail
- Optional Ansur test automation software to standardize testing procedures, capture waveforms and test results, and print and document test results

## Specifications

<b>Output energy test</b>	
Load	50 ± 1 %, with inductance < 70 μ h
Resolution	High-range: 1 J; low-range: 0.1 J
Low-range	0 J to 100 J
High-range	0 J to 400 J
Pulse width	1 ms to 50 ms
Maximum current	Low: 35 A; high: 110 A
Maximum voltage	Low: 1750 V; high: 5500 V
Minimum voltage	Low: 20 V, high: 66 V
Accuracy	400 J range: ± 2 % of reading; 100 J to 400 J: ± 2 J; 100 J Range: ± 2 % of reading, ± 0.1 J
Waveform storage	Discharge viewable via ECG output, paddles, and scope output
Time expansion lead II amplitude	High = 3000 V / mV; low = 900 V / mV
<b>Peak/overshoot</b>	
Voltage accuracy	400 J range: ± 10 V; 100 J Range: ± 25 V Current accuracy: ± 1 A
Cardioversion synchronization test	Measurement from peak or base of simulated R-wave: 0 ms to 199.9 ms Accuracy: 1 % of full scale or ± 2 ms, whichever is greater
<b>Defib waveform playback</b>	
Time base expansion	100:1 @ 25 mm/s paper speed, each division equals 40 ms
Amplitude scaling	Lead II (RA-LL); 400 J range: 1 mV = 3000 V; 100 J range: 1 mV = 900 V
ECG output	400 J range: 0.5 V = 3000 V; 100 J range: 0.5 V = 900 V
<b>Scope outputs</b>	
ECG hi-level	Fixed at 1 V
Accuracy	± 2 %
Defib output	Real time
Waveform output	5 ECG lead adapters, front-panel paddles, and high-level scope output
<b>Calibration screen</b>	
Load	50 ± 1% (Apex-Sternum)
Amplitude scaling	Apex (+) to sternum (-)
Zero voltage input	0 ± 2 counts
<b>RS-232 output/computer control</b>	
<b>Note:</b> Computer control allows the user to operate the QED 6 remotely via a serial RS-232 interface. It requires an RS-232 cable and a bidirectional D-9 connector.	
<b>Selectable communications parameters</b>	
Baud rate	300, 600, 1200, 2400, and 9600
Parity	None, even, odd
Stop bits	1 or 2
Data bits	7 or 8

<b>Environmental requirements</b>	
<b>Storage temperature</b>	-25 °C to 50 °C (-13 °F to 122 °F)
<b>Operating temperature</b>	0 °C to 40 °C (32 °F to 104 °F)
<b>Maximum humidity</b>	90 % relative humidity
<b>General information</b>	
<b>Display</b>	2-line x 24-character super twist LCD
<b>Power</b>	One 9 V alkaline battery or 9 V battery eliminator; 12 hours continuous operation; low-battery indication; 120/240 V battery eliminator input
<b>Dimensions (WxDxH)</b>	24.13 cm x 26.67 cm x 10.16 cm (9.5 in x 10.5 in x 4 in)
<b>Weight</b>	2.06 kg (4.54 lb)

## Ordering information

### Model

**QED-6** QED-6 Defibrillator Analyzer

### Standard accessories

**3371002** User Manual

**3360501** Internal Paddle Discharge Contact Adapters (two each)

**BEUNVSL IEC320C14P** Battery Eliminator, 90-264 V ac/9 V dc

**POWER SUPPLY** Power Supply, 90-264 V ac/9 V dc

### Interface cables and accessories (optional)

**ANSUR QED 6** Ansur QED 6 Plug-in

**3362013** Soft-Sided Vinyl Carrying Case

**3370512** RS-232/Printer Cable

**PRINTR/414-US120V** Printer, Seiko DPU-414-30B 120 V Power Supply

**PRINTR414-SHK220V** Printer, Seiko DPU-414-30B 220 V Power Supply

**61096** Printer, 120 V Power Supply

**61097** Printer, 220 V Power Supply

**97116** Printer Paper (7 rolls minimum, priced per individual roll)

**3370512** Serial Cable D9F-D9F

**3360504FG** Printer Cable DPU 411

**3370513** Serial Printer Cable DPU 414, DB9F to DB9F

### Defibrillators electrode adapters (optional)

**Note:** Refer to your sales representative or directly to Fluke Biomedical for most current listing of available adapters.

**3010-0447** Agilent/HP: Codemaster XL + series (inline round connector included)

**3010-0537** Agilent/Philips: HEARTSTREAM FR2, XL AND XLT series (inline rectangular connector)

**5215-0258FG** GE-Marquette: Responder series (snap connector included; two adapters required)

**5215-0278FG** Laerdal: HEARTSTART/SpaceLabs: FIRST MEDIC (early series) round snap connector included; two adapters required

**3010-0302** MDE (Medical Data Electronics: All) (inline R2/Darox connector included)

**3010-0513FG** Medtronic Physio-Control LifePak series: QUIK COMBO (inline connector included)

**5215-0256FG** Medtronic Physio-Control LifePak series: FAST PATCH (snap connector included; two adapters required)

**3010-0378** Zoll Medical PD series, M series, M series CCT and AED Plus™ (Testing the AED Plus™ requires the purchase of an additional auxiliary adapter directly from Zoll Medical (Zoll Medical model: 8000-0804-01)

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