

# Specifications - Heartstart 3000QR

## Defibrillator

ECG acquisition:	Via disposable defibrillator electrodes in Lead II. anterior-anterior placement
Waveform type:	Truncated exponential per ANSI/AAMI DF2-1989
Energy level:	Semi-automatic Mode: 200 J, 360 J. Manual Mode: 25 J, 50 J, 100 J, 200 J, 360 J.
Charging time:	Typically 6 seconds to 200 J and 10 seconds to 360 J with fully charged battery. After fifteen 360 J discharges, approximately 13 seconds to 360 J.
Detection algorithm:	Monitors impedance and ECG.
Charging:	Ventricular fibrillation as per amplitude and time order specifications. Ventricular tachycardia greater than 180 bpm.
Analysis time:	Typically 6 – 9 sec.
Voice prompts:	"CHECK PATIENT" "CHECK ELECTRODES" "STAND CLEAR" "PRESS TO SHOCK" "CHECK TAPE RECORDER" "CHECK PULSE" "MANUAL MODE - SELECT ENERGY"
Display:	70 mm x 127 mm backlit LCD incorporating operating messages, warnings and written messages.
Controls description:	Seven membrane switches.
Patient cable:	Length 1.8 m

## Monitor

ECG acquisition:	Via disposable defibrillation electrodes or ECG electrodes.
Type:	LCD display with backlight incorporated.
Trace time:	4.5 sec.
Freeze:	On/Off membrane switch freezes 3 sec. of trace while real time continues on remaining 1.5 sec.
Ratemeter:	Numeric 30 – 300 bpm.
Sweep speed:	25 mm/sec. +/- 5%
Amplitude:	10 mm/mV +/- 5%

## Medical Control

Medical Control	Operates only MCM Plus reusable module (standard MCM supported only in version G and lower).
Module:	Capacity: MCM: 150 sec. ECG. MCM Plus: 1200 sec. ECG. (20 min.)
Tape playback:	Tapes are read by separate "Heartstart Medical Control Unit" for playback or printer generated report.
Tape cassette:	MC-60 (micro-cassette): Recording time is 30 min. per side.
Module readers:	Modules are read by separate "Heartstart Reporter" or "Heartstart Quick Reporter" for printing generated report.
Printers:	Std. computer printer with parallel connection e.g. Epson FX 800 or equivalent.

## Battery

Type:	Rechargeable sealed lead acid.
Capacity:	New, fully charged, at least 30 ea. 360 J discharges, or 3.3 hours of monitoring operation, or combination.
Charger:	Connect battery charger to mains for charging uninstalled battery, or use "Heartstart Quick Reporter" as charger.
Charging time:	Up to 16 hours.

## Physical/Environmental

Size:	287 mm x 357 mm x 103 mm (width x length x height)
Weight:	3.7 kg (8.4 lbs) w/tape w/o battery 4.4 kg (9.9 lbs) w/tape and battery
Temperature:	0°C to +50°C - Operating (30°F to 122 °F) -20°C to +55°C - Storage (+ 4°F to 131°F)
Humidity:	10–95% RH non-condensing

Radio frequency interference (RFI): Better than VDE 0871 limit B and FCC Part 15 Subpart J.  
Electromagnetic susceptibility (EMS) tested according to IEC - 801-2  
IEC - 801-3 class 3 (10 V/m)  
IEC - 801-4