

Technical Specifications TECNOHEART SMART

Defibrillation Electrical Discharge

Feature	Specification
Waveform	Biphasic Truncated Exponential (BTE) waveform (impedance compensation)
Energy	Adult: 170 to 195J ($\pm 5\%$) (p. 1) Pediatric (neonate-child): 44 to 51J ($\pm 5\%$) (p. 1)
Operating Mode	Semi-automatic, fully automatic (p. 1)

ECG

Feature	Specification
Lead	II (RA, LL) (p. 1)
Patient Impedance	25 to 200 ohms (p. 1)
Heart Rate	20 to 350 per minute (p. 1)
Accuracy	1 per minute (p. 1)
V/F Detection	greater than or equal to 0.2 mV (p. 1)
V/T	Adult: greater than or equal to 150 bpm (p. 1) Pediatric (neonate-child): greater than or equal to 180 bpm (p. 1)
Connector Connection	Connection confirmation and voice messages (p. 1)
Filter	0.5 to 30 Hz (p. 1)

Pacemaker Detection	The AED can detect or reject pulses from an implanted pacemaker for rhythm analysis (p. 1).
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Indicators

Category	Item
Controls	Standard: Power button, shock button, patient mode button, language selection button (p. 1)
Visible	Action icon, status LCD (AED status, battery status, temperature status, electrode status), LED (p. 1)
Audible Signals	Speaker (voice messages, CPR indication) Beep (CPR indication, power on, very low battery, failed self-test, abnormal operation alarm) (p. 1)

Physical Characteristics

Feature	Specification
Dimensions	200 × 286.5 × 90 (mm) (W×H×D) (p. 1)
Weight	Approximately 1.95 kg including battery (p. 1)
Degree of Protection against electric shock	Electrodes: Type CF with defibrillator protection (p. 1)

Environmental Conditions

Condition	Operating/Standby	Storage (in shipping box)
Temperature	0 to 43°C (32 to 109.4°F) (p. 2)	-20 to 60°C (-4 to 140°F) (p. 2)
Relative Humidity	5 to 95% RH (non-condensing) (p. 2)	5 to 95% RH (non-condensing) (p. 2)

Altitude	0 to 4,575 m (p. 2)	0 to 12,192 m (p. 2)
Drop Height	0.75m (p. 2)	-
Water and Dust Resistance	IP55 (IEC60529) (p. 2)	-

Self-Test

- **Temperature:** 0 to 43°C (32 to 109.4°F) (p. 2)
- **Cycle:** Every 24 hours, 1 week, 1 month (p. 2)
- **Test Types:** Power-on self-test, battery insertion self-test (p. 2)
- **Test Results:** The status LCD indicates "O" / "X" (p. 2).

Data Backup and Communication

- **Standard:** SD card, infrared communication port (p. 2)

Expected Useful Life

- **Expected Useful Life:** 10 years (p. 2)

Accessories Specifications

Electrodes

- **Type:** Adult/Pediatric (neonate/child) disposable, self-adhesive electrodes (p. 3)
- **Shelf Life:** Refer to the electrode's sense for use (p. 3)
- **Placement:** Adult: Anterolateral; Pediatric (neonate-child): Anteroposterior (p. 3)
- **Minimum Gel Adhesion Surface Area:** 80 cm² +/-5% (p. 3)
- **Cable Length:** Approximately 1.8 m (p. 3)

Battery

- **Type:** LiMnO₂, Disposable, Long-Life Primary Cell (p. 3)
- **Voltage/Capacity:** 15V, 4200 mAh (p. 3)
- **Expiration Date (in original packaging):** 2 years from the date of manufacture (p. 3)
- **Standby Life (inserted in the AED):** 5 years from the date of manufacture (p. 3)
- **Discharge Capacity:** Minimum 200 electrical discharges (excluding CPR period between defibrillation therapy) or 6 hours of operation at 20°C (p. 3)

