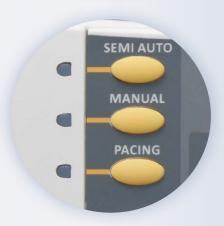
# **TECHNICAL SPECIFICATION**

# Cardio-Aid® 360-B Biphasic Defibrillator











#### **Innomed Medical**

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## **Physical**

Dimensions 360x280x250 mm 6.3 kg (base unit) 7.7 kg (with Weiaht

#### **Environmental**

IP Rating IP32 Operating Temperature 0...45 °C -20...+60 °C

30%...95% (without condensation) Humidity Display

7" (177.7 mm) diagonal, active area 152.4 x 91.4 mm Dimensions Color WVGA TFT LCD, LED Type backlight, adjustable brightness Resolution 800 x 480 x 3 pixels

170 degrees left/right and up/down

FCG window 4.4 sec at 25 mm/sec

Max. number of parameters

Viewing angle

#### **Mains Power Supply**

Voltage	90240 V
Current	Max. 1.2 A
Frequency	4763 Hz AC
Power Factor	0.97 with Power Factor Correction
Battery	
Туре	Ni-MH 10.8V 3000mAh
Dimensions	70 x 60 x 90 mm
Weight	620 g
Capacity	More than 5 hours continuous monitoring or 200 shocks at 200J
Indicator	5-stage indicator on screen and LED indicator when turned off
Charge time	Less than 2 hours for full charge
Defibrillator	
A 4 = -1 =	AED as an and an allowed and

AED, manual and synchronized Defi electrodes Paddles, Pads and Internal STAR™ Biphasic Truncated Waveform

Energy for external 2..360 J in 15 steps Energy for internal defibrillation 1..50 J in 15 steps

From paddles or front panel buttons, programmable for AED **Energy Selection** 2.7 sec to 200 J, 4.5 sec to 360 J Charge Time **Energy Availability** Automatic disarm after 30 sec Patient Impedance Range 15..200 ohms with indicator

40 msec typ. Sync Time

#### Pacemaker (Optional)

· documentor (opinomar)		1
	Mode	Demand (VVI) and Fixed Rate (VVO)
	Туре	Transthoracic non-invasive
	Waveform	Rectilinear, constant current
	Pulse Width	40 msec
	Current Amplitude	0 and 20200 mA, 1 mA resolution
	Rate	30200 ppm, 1 ppm resolution
	Patient Impedance Range	01000 ohms with indicator

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#### **ECG**

Pads/Paddles, 3-, 5-, and 10-lead Source cables and EXT ECG cable Number of leads 12 leads simultaneously Number of displayed ECG 13 (12 leads and 1 rhythm) Gain 2.5, 5, 10, 20 mm/mV and Auto 5, 10, 25, 50 mm/sec Speed High-pass, mains (50/60 Hz) and adjustable Low-pass filters **Filters** Heart Rate Display 15..300 bpm HR, Asystole, VF, VT Alarms Min. 2 mV 0.25 msec, max. 700 mV Pacemaker detection Defibrillator protection Max. 400 J Overload Recovery Time < 3 sec, typ. Lead-Off detection For all leads

**Pulseoxymetry (Optional)** 

1..100 % SpO<sub>2</sub> Range Resolution 1 % Pulse Rate 20..300 bpm

For Lower and Upper limits, No Finger and sensor fall-off

#### **Non-Invasive Blood Pressure (Optional)**

Oscillometric Systolic: 40..260 mmHg, Diastolic: 25..200 mmHg Range Systolic, Diastolic, Mean, Rate, Time Displayed values

of Last Measurement For Lower and Upper limits and cuff **Alarms** 

Type Main- and Sidestream 0..150 mmHg (0..19.7 %, or 0..20 Range Resolution 0.1 mmHg Respiration Rate Display 2..150 rpm For Lower and Upper limits and Alarms

#### Alarm System

Levels 3-level intelligent alarm system Visual Alarm Multicolor, configurable Audible Alarm Different sounds, configurable Event Storage, Automatic Printout **Automatic Actions** (configurable)

#### Data Storage

Туре Internal memory Alarm conditions, manual events, Stored events 10000 events minimum Capacity

Export capability **USB** drive

Report Browser Software On PC, from exported USB data

## **Recorder (Optional)**

Thermal Strip-Chart Recorder Type Paper Width Number of Channels 1 or 3 Online, Stored Waves, Stored Events 12 channel ECG printout Simultaneous, in 3x4 format Events, Device Information, Date, Reports Time, Modes, Parameters, Name Configurable for Events, Shocks, Automatic Printing 2.5, 5, 10, 20 mm/mV Gain 25, 50 mm/sec Speed

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# Cardio-Aid® 360-B Biphasic Defibrillator











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Cardio-Aid® 360-B biphasic defibrillator integrates state-of-the-art technologies which make quick life saving possible.



#### STAR™ biphasic waveform

The main goal of designing STAR™ (Self-Tracking Active Response) biphasic waveform was to optimize energy delivery. Maximal energy accuracy is guaranteed by the system under any circumstances, which ensures the most effective therapy for all patients

#### 360 Joule

Cardio-Aid® 360-B delivers a biphasic shock even at 360 J energy level if it is necessary.

#### 2.7 sec typical charging time\*

The exceptionally short charging time ensures the quickest possible intervention, increasing the chance for survival.

#### **AED** mode

The user is guided by clear screen and voice commands through the resuscitation procedure according to the latest ERC guidelines. Safe and simple operation minimizes the chance of mistakes from user's side, after receiving a brief training.

#### **VF** detector

The applied VF/VT detector guarantees quick and reliable detection of patient arrhythmia both in AED and in manual modes.

#### Cardioversion

Using the latest technologies, the delay of detection is minimized, therefore the reliability of cardioversion therapy is guaranteed.

#### Impedance measurement

Patient's safety and efficiency of the therapy is achieved by the continuous monitoring of patient's chest impedance. The actual patient impedance is displayed on the screen on a bargraph, and a voice message also warns the user in case of insufficient contact.

#### Transcutaneous pacer

For quick intervention, not only disposable electrodes but also multifunctional defibrillation paddle-electrodes can be used during the application of external pacer therapy.

#### 12-channel ECG

DSP technology based ECG helps the doctor with accurate information before and after intervention. Simultaneous, real 12-channel diagnostic quality ECG with pacemaker detection ensures the appropriate monitoring of patients even with implanted pacemaker.



## Intelligent energy management

The intelligent battery managementalways gives adequate information on the status of the battery. The power consumption of the device has been



#### **Event storage and printing**

The event storage system is capable of storing practically unlimited number of events, which can be printed out online or offline, or even exported to a USB drive. PDF report also can be created on PC from the exported data. Automatic printing is also possible for several events.

#### Multifunctionality

Cardio-Aid® 360-B defibrillator is dedicated to clinical and hospital use. Due to its easy handling and high-level services, both experienced personnel and laymen can use it fast and effectively.

The reliable SunTech® NIBP module built in the device measures patient's blood-pressure in a fast and accurate way.

Precise oxygen saturation measurement is guaranteed by Nellcor™ pulseoxymeter technology.

The Philips Respironics CAPNOSTAT® and LoFlo™ capnograph modules provide reliable main- and sidestream CO2 monitoring.

#### ALL-IN-HAND™ simple handling

The multifunctional external paddle-electrodes are equipped with ergonomic setting keys. Energy level can be set, charging and shock delivery can be started from paddle-electrodes. Together with the voice messages, it allows the user to perform critical interventions, without touching or looking at the device. Paddles can be transformed to paediatric with a simple twist.

#### Desian

Ergonomically designed housing provides comfortable portability.

#### Alarm system

The alarm system of the defibrillator is able to generate alarms from technical and physiological ori-

If any measured parameter exceeds the previously set alarm limits, or any sensor problem occurs, the device gives fully configurable visual and audible alarms and stores the event as well.

Cardio-Aid® 360-B defibrillator is available in different language configurations. Flexible expansion of language range: display messages, labels, manuals and voice prompts.





# **Accessories and options**

Internal electrodes



ECG electrodes



Pacer electrodes

Multifunctional paddles



Pulseoxymeter



capnograph

Mainstream



NIBP cuff



capnograph



Sidestream





#### Multi-lanauaae





Carrying bag