

GE Healthcare

MAC™ i

More ECG Per ECG

MAC™ i is GE Healthcare's new compact electrocardiograph, specially designed to meet the needs unique to Indian environment. Being a 'GE *healthymagination*' product, MAC™ i offers **More Accuracy, More Convenience** and **More Value for Money**.

Light weight & portable MAC™ i is easy to operate, aids in faster, more confident cardiac assessment ensuring better patient care.

- **Accuracy**

- MAC™ i complies to all the applicable requirements of international safety and performance standards namely IEC and AAMI EC 11 & thus ensures that waveform printed out is accurate.
- Marquette 12SL measurement algorithm provides reliable decision support and helps in faster and more accurate interpretation of ECG.

- **Convenience**

- Alpha Numeric Display helps easy visualization of setup information, displays heart rate information and also tells us when the ECG starts stabilizing.
- Ultra portability (weight with battery just 1200gms), Single touch operation & wide paper size further adds to convenience.

- **Value for Money**

- Only 3 hours battery recharge time.
- Longer battery life.
- Capacity of 500 ECGs per charge for three channel machine & 250 ECGs per charge for single channel machine make MAC™ i offer long term economy.



imagination at work

At a Glance

Instrument Type

Microprocessor augmented automatic electrocardiograph; 10-leadwire, 12 lead simultaneous acquisition with programmable lead configuration.

Processing

Acquisition 12 leads simultaneous ECG acquisition
 Digital sampling rate: 2,000 samples/second/channel
 Acquisition mode ECG10 seconds of simultaneous and Sequential recording

Computerized Measurements Supports Measurement with Marquette™ 12SL™ ECG Analysis Program (Optional feature)

ECG analysis frequency 500 samples/second/channel
 Dynamic range AC Differential ± 5mV, DC offset ±300 mV

Resolution 4.88µV/LSB @ 500 sps
 Frequency response -3dB @ 0.01 and 150 Hz

Low cut-off frequency 0.01 Hz, 0.02 Hz, 0.16 Hz or 0.32 Hz

High cut-off frequency 150 Hz, 40 Hz or 20 Hz

Operating modes Automatic ECG (12lead data), Rhythm/Manual (real-time data)

Common mode rejection >100 dB (with AC filter enabled)

Input impedance >10MΩ @ 10Hz, defibrillator protected.

Patient leakage <10µA in Normal Condition and <50µA in Single Fault Condition

Lead-fail indication Disconnected lead detection.

Heart rate meter 30 to 300 BPM ±10% or ±5 BPM, whichever is greater.

Start up time ≤ 7 seconds

Display

Display type 2x16 alphanumeric display with adjustable contrast

Display data Operating Mode, Heart rate, print formats/Lead display, speed, gain, muscle filter, AC filter and Configuration menu

Writer

Writer technology Thermal dot array print head
 Writer speed 5, 25, & 50 mm/s
 Number of traces 1 channel rhythm, 1 or 3 channel (option) Auto ECG user selectable

Writer sensitivity/gain 2.5, 5, 10, 20mm/mV

Writer speed accuracy ±5%

Writer amplitude accuracy ±5%

Writer resolution Horizontal 40 dots/mm @ 25 mm/s, 8 dots/mm vertical

Paper type Thermal Roll paper 20m.

Keyboard

Type Membrane keyboard with tactile feedback

Software Standard

Resting ECG mode Records and prints 12-lead resting ECGs with 10 seconds duration as a standard feature.
 Language support English

Electrical

Power Supply External ACDC adaptor or battery operation (system acquires and prints only on battery)

External ACDC adaptor specifications

Input voltage 100 to 240 VAC ±10 %
 Input current Maximum 0.5A @ 90 VAC, 0.3A @ 240 VAC
 Operating frequency 50 to 60 Hz ±3Hz
 Output voltage 12V ± 5%

Battery Specification

Battery type Replaceable and rechargeable, Lithium Ion
 Battery capacity 7.2V typical, 2.25 AH ±10%
 250 continuous ECGs in Simultaneous 1 lead report format at 25 mm/s and 10mm/mV
 500 continuous ECGs in Simultaneous 3 lead report format at 25 mm/s and 10mm/mV
 240 minutes of continuous rhythm print at 25 mm/S and 10 mm/mV

Battery charge time Approximately 3 hours from total discharge

Physical Specification

Height Approximately 85 mm
 Width Approximately 275 mm
 Depth Approximately 215 mm
 Weight Approximately 1.2 Kg including battery and paper roll

Environmental Specification**Temperature**

Operating 5° to 40°C
 Transport/storage -15°C to 50 °C

Humidity

Operating 25% to 95% RH non-condensing
 Transport/storage 25% to 95% RH non-condensing

Pressure

Operating 700 to 1060 hPA
 Transport/storage 500 to 1060 hPA

International Safety & Performance Standards

IEC 60601-1: 1988 +Amd-1: 1991, +Amd-2: 1995
 General Requirements for Safety

IEC 60601-2-25: 1993 +Amd-1: 1999
 Particular Requirements for the Safety of Electrocardiographs

IEC 60601-2-51: 2003
 Particular requirements for safety, including essential performance, of recording and analyzing single channel and multi channel electrocardiographs.

ANSI/AAMI EC-11: 1991 / © 2001 / © 2007

American national standard Diagnostic Electrocardiography Devices

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