

MAC[®] 600 Resting ECG

Technical Specifications



Instrument Type	
Microprocessor augmented automatic electrocardiograph; 10-leadwire, 12-lead simultaneous acquisition with programmable lead configuration.	
Processing	
ECG interpretation:	Marquette® 12SL™ ECG Analysis Program for Adults and Pediatrics
Computerized measurements:	12-lead analysis
ECG analysis frequency:	500 samples/second (sps)
Digital sampling rate:	2,000 samples/second/channel
ECG on-screen preview:	On-screen preview of acquired 10-second ECG waveform and optional 12SL measurement and interpretation
Acquisition mode:	Pre-acquisition or post-acquisition, provide 10 seconds of instantaneous ECG acquisition
Dynamic range:	AC Differential ± 5mV, DC offset ±300 mV
Resolution:	4.88 µV/LSB @ 500 sps
Frequency response:	-3 dB @ 0.01 to 150 Hz
Low cut-off frequency:	0.01 Hz, 0.02 Hz, 0.16 Hz or 0.32 Hz (-3 dB limits)
High cut-off frequency:	Configurable at 20 Hz, 40 Hz, 100 Hz or 150 Hz
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Adaptive AC filter:	47 Hz to 53 Hz when set to 50Hz, 57 Hz to 63 Hz when set to 60 Hz
Common mode rejection:	>100 dB (with AC filter switched on)
Input impedance:	>10MΩ @ 10 Hz, defibrillator protected
Patient leakage:	<10 µA
Special acquisition functions:	Disconnected lead detection except RL, excessive AC noise, baseline wander and muscle tremor messages
Heart rate meter:	30 to 300 BPM ±10% or ±5 BPM, whichever is greater. Heart rates outside this range will not be displayed
Start-up time:	Less than 7 seconds
Patient Information	
Supported patient information:	Patient ID, secondary ID, age, date of birth, gender. Alphanumeric entry in T9 type for patient ID and secondary ID.
Display	
Display type:	4.3 inch (110 mm) diagonal, TFT LCD with LED graphics backlit (color optional)
Display resolution:	480 X 272 pixels with scrolling waveform
Display data:	Heart rate, patient ID, clock, battery power indicator, waveforms, lead labels, speed, gain and filter settings, warning messages, information messages, prompts. 12-leads standard display.
Writer	
Writer technology:	Thermal dot array
Writer speed:	5, 12.5, 25, & 50 mm/s
Number of traces:	3 leads + 1 rhythm or 3 leads; user selectable
Writer sensitivity/gain:	2.5, 5, 10, 20, 10/5 (split calibration) mm/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. Z-fold perforated, 80 mm width, 280 sheets/pack. Roll paper 15.7 m.
Keyboard	
Type:	Type Membrane keyboard with tactile feedback
Software Standard	
Resting ECG mode:	Records and prints 12-lead resting ECGs with 10-second duration as a standard feature
Hookup Advisor™:	Provides visual indication of signal quality
Multi-language support:	Supports 16 languages
Software Options	
Measurement:	Supports measurement with Marquette 12SL ECG Analysis Program
Measurement and interpretation:	Supports measurement and interpretation with Marquette 12SL ECG Analysis Program
Color:	Color display

External storage:	200 ECGs in external memory (SD card)
Transmission:	ECG data transmission via serial cable
XML format:	ECG storage in XML format
PDF format: ¹	ECG storage in PDF format
Communication (optional)	
MUSE® Cardiology Information System Compatible	
Serial cable:	ECG transmission to MUSE Cardiology Information System
Serial cable:	ECG transmission in XML format
SD card interface:	Compatible with MUSE v7
CardioSoft™ Interface	
SD card interface:	Compatible with Cardiosoft V6.51
Storage (optional)	
ECG storage format:	GE storage format for MUSE and CardioSoft. XML storage format. PDF storage format.
PDF file name format:	User-configurable file name, which includes patient ID, secondary ID, date of birth, ECG recording date and time
Report Formats	
Thermal printer report formats	4 by 2.5s 4 by 2.5s + 1 rhythm lead 4 by 3s 4 by 10s Autorhythm (10-second ECG data for 3 leads) Printing of 4 by 10s or Autorhythm for abnormal ECG Continuous 3-channel rhythm
PDF report format (A4 format):	4 by 2.5s 4 by 2.5s + 1 rhythm lead 2 by 5s 2 by 5s + 1 rhythm lead 2 by 5s @ 50mm/s 4 by 10s Autorhythm (12-lead)
Accessories	
IEC/AHA leadwire and electrode adaptor sets (user-selectable) 10-lead patient cable (user-selectable replaceable leads or fixed leads cables) Electrodes (disposable or reusable, user-selectable) Country-specific power cords Z-fold and Roll paper Electrode cream 250 ml/tube	
Electrical	
Power supply:	External AC/DC adaptor or battery operation
External Adaptor Specifications	
Input voltage:	100 to 240 VAC ±10%
Input current:	Maximum 0.6A @ 90 VAC, 0.3A @ 240 VAC
Input frequency:	50 to 60 Hz ± 3Hz
Output voltage:	12V ± 5%
Battery Specifications	
Battery type:	Replaceable and rechargeable, Lithium Ion
Battery capacity:	7.2V typical, 2.25 AH ±10% 360 minutes of continuous operation without recording or 250 ECGs in 2.5 X 4 format at 25 mm/S and 10 mm/mV or 100 minutes continuous rhythm print at 25 mm/S and 10 mm/mV.
Battery charge time:	Approximately 3 hours from total discharge (with display off)
Physical Specification	
Height:	81 mm
Width:	263 mm
Depth:	208 mm
Weight:	1.2 Kg including battery, without paper

¹ECG storage in PDF format is not supported in Russian language.

Environmental Specification	
Temperature	
Operating	5°C 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
Certification	
Class II, type CF defibrillator proof UL 60601-1 Medical Electrical Equipment, part 1: General Requirements for Safety CAN/CSA C22.2 No. 601.1 General Requirements for Safety CE marking for Council Directive 93/42/EEC concerning medical devices IEC 60601-1 General Requirements for Safety IEC 60601-1-1 General Requirements for Safety Medical Electrical systems IEC 60601-2-25 Particular Requirements for the Safety of Electrocardiographs IEC 60601-2-51 Particular Requirements for Safety, including essential performance, of recording and analyzing single channel and multi channel electrocardiographs IEC 60601-1-2 General Requirements for Safety Electromagnetic Compatibility IEC 60601-1-4 General Requirements for Safety – Programmable electrical medical systems IEC 60601-1-6 General Requirements for basic safety and essential performance – Collateral Standard: Usability-Edition 2.0 Meets applicable AAMI EC-11 requirements and AAMI EC 13 (Clause 4.2.7 only)	

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GE imagination at work

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