

Technical specification of Digital ECG Machine

Purchaser: Tulsipur Sub Metropolitan city, Tulsipur , dang

Medical equipment : Digital ECG Machine

Quantity : 1



S.N.	Purchaser's Specifications
1	Description of Function
1.1	ECG Machine is primary equipment to record ECG Signal in various configurations.
2	Operational Requirements
2.1	Microprocessor controlled digital ECG machine must be able to acquire all 12 Leads simultaneously.
3	System Configuration
3.1	Digital ECG machine with complete accessories
4	Technical Specifications
4.1	Simultaneous recording of 12 standard leads: aVR, aVL, aVF, I, II, III and V1-6 pre-cordials.
4.2	Internal memory for data storage. Bidder to specify the storage capacity of ECGs.
4.3	Splash-resistant alphanumeric keyboard with function keys.
4.4	With zeroing reset, auto-base-line correction (0.5Hz) and 1mV test/calibration signal.
4.5	Filter setting for line-frequency (50 or 60Hz) and tremor.
4.6	Continuous check on the quality of electrodes connection, audio visual alert on loss of signal
4.7	Appropriately protected for operation during defibrillation.
4.8	Alphanumeric colour LCD display, approximately: 6". Display shows ECG-curves, heart rate, patient name and ID, time, speed and filter setting.
4.9	Front panel provides indication of system and battery status, electrode connection and paper.
4.10	Built-in high-resolution, approx. 300 dpi thermal printer, width 210mm, automatic and manual print-out mode.
4.11	Print-out on folded thermo-reactive paper, format A4.
4.12	Number of channels printed is user selectable: 3, 6 or 12.
4.13	Combination of channels printed is standard and user selectable and with copy function.
4.14	Paper speed, user adjustable: 5, 25 and 50mm/sec.
4.15	Sensitivity, automatic or user selectable: 5, 10 and 20mm/mV.
4.16	Data interface: RS232 or equivalent Self-test is performed each time the device is switched on.
4.17	Transformer, charger and rechargeable battery integrated in device.
4.18	Autonomy, approximately 50 readings on fully charged battery.
4.19	Internal re-chargeable battery Power consumption, approximately: 200W
5	Accessories, spares and consumables
5.1	Accessories: <ul style="list-style-type: none"> • Patient cable-1 no. • Reusable chest electrodes, suction ball-type- 6 nos. • Extremity clamp electrodes, reusable- 4 nos. • Box of A4 recording paper, 1000 sheets- 1 no. • Bottles of electrode gel, approximately 350ml- 2 nos. • Spare rechargeable battery pack- 1 no. • Set of spare fuses- 1 set • Plastic protective dustcover- 1 no.
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must

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S.N.	Purchaser's Specifications
	specify the quantity of every item included in their offer (including items not specified above).
6	Operating Environment
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.
6.2	Power supply: 220-240V AC, 50Hz fitted with appropriate plug type D round 3 pins. The power cable must be at least 3 metre in length.
7	Standards and Safety Requirements
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.
7.3	Shall meet IEC-60601-1-2:2001 General Requirements of Safety for Electromagnetic Compatibility.
7.4	Electrical safety conforms to standards for electrical safety IEC-60601-1 General Requirements and IEC-60601-2-25 Safety of Electrocardiograms.
8	User Training
8.1	Must provide user training (including how to use and maintain the equipment).
9	Warranty
9.1	Comprehensive warranty for 2 years after acceptance.
10	Maintenance Service During Warranty Period
10.1	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.
11	Installation and Commissioning
11.1	Supplier must accomplish proper installation and commissioning of the equipment onsite.
12	Documentation
12.1	User (Operating) manual in English.
12.2	Service (Technical / Maintenance) manual in English.
12.3	List of important spare parts and accessories with their part numbers and costing.
12.4	Certificate of calibration and inspection from factory.

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