


# BeneHeart R300

## Electrocardiograph



| Technical Specifications                  |   |
|---|---|
| <b>Physical Specifications</b>            |   |
| Height                                    | ≤60 mm  |
| Width                                     | ≤210 mm   |
| Length                                    | ≤270mm  |
| Weight                                    | ≤1.5 kg   |
| <b>Measurement Specifications</b>         |   |
| Frequency response                        | 0.01~500Hz  |
| ECG sampling rate                         | 64000 samples/s (A/D)   |
| Pacer sampling rate                       | 96000 samples/s (A/D)   |
| Common mode rejection                     | ≥ 140 dB (AC filter on)<br>≥ 123 dB (AC filter off)   |
| Time constant                             | ≥3.2 s  |
| ADC                                       | 24 bits   |
| A/D resolution                            | 0.1192 μV/LSB   |
| Input impedance                           | ≥ 100 MΩ (10 Hz)  |
| Display sensitivity                       | Auto, 1.25 mm/mV, 2.5 mm/mV , 5 mm/mV, 10 mm/mV, 20 mm/mV , 10/5 mm/mV, 20/10 mm/mV, (± 5%) |
| Electrode offset potential tolerance      | ±900mV, ± 5%  |
| Minimum signal                            | 20 μV p-p(10Hz)   |
| Calibration signal                        | 1mV ± 1%  |
| Noise level                               | ≤12.5 μV (p-p)  |
| Baseline filter                           | 0.01Hz, 0.05 Hz, 0.56 Hz  |
| EMG filter                                | 20 Hz, 35 Hz, OFF   |
| Lowpass filter                            | 150 Hz, 270 Hz, 350 Hz  |
| Notch filter                              | 50 Hz, 60 Hz, OFF   |
| Rejection on power frequency interference | ≥20 dB  |
| Input signal range                        | ±10 mVpp  |
| Accuracy of signal reproduction           | In compliance with the requirements of IEC 60601-2-25                                       |
| Defibrillation proof                      | Enduring 5000V (360 J) charge without data loss or corruption                               |
| Baseline recovery time                    | <5 s (after defibrillation)   |
| Electrode polarization recovery time      | <10 s   |
| Defibrillation energy absorption          | ≤10% (100Ω load)  |
| AC overload protection                    | 10 s  |
| Channel crosstalk                         | ≤0.5mm  |
| Time deviation between channels           | < 100μs   |
| Pacer detection                           | Amplitude: ±500 μV to ±700 mV<br>Width: 30 μs to 2ms  |
| HR measurement range                      | 30 to 300 bpm   |
| HR accuracy                               | ±1% or ±1bpm, whichever is greater  |
| HR resolution                             | 1 bpm   |

| <b>Display</b>   |   |
|--|---|
| Display type   | Color TFT LCD   |
| Display size   | 5 inches  |
| Display resolution   | 800×480 pixels  |
| Display data   | patient ID, patient name, gender, age, heart rate, pacemaker, warning messages, information messages, time, battery power indicator, network, waveforms, lead labels, pace annotations, speed, gain |
| <b>Power</b>   |   |
| Power supply   | AC input (without external power adaptor) or battery operation  |
| <b>AC Power</b>  |   |
| Input voltage  | 100 to 240 VAC ±10%   |
| Input current  | 1.0 to 0.5A   |
| AC frequency   | 50/60 Hz  |
| <b>Battery</b>   |   |
| Battery type   | Rechargeable lithium-ion battery, 2600mAh   |
| Charge time  | Less than 3 hours to 90% and less than 3.5 hours to 100% with equipment turned off.   |
| Battery capacity   | At least 500 auto reports, or 2 hours of continuous paper recording, or 6 hours of paperless recording.   |
| Shutdown delay   | at least 5 minutes after the low battery alarm first occurs   |
| <b>Recorder</b>  |   |
| Recorder type  | High-resolution thermal recorder  |
| Paper speed  | 5 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s. (± 5%)   |
| Printing resolution  | Horizontal 32 dots/mm (25 mm/s) , Vertical 8 dots/mm  |
| Paper type   | 80mm×20m (rolled paper)<br>80mm×70m×200 pages (folded paper)  |
| <b>Software</b>  |   |
| Measurement and interpretation   | Supports <i>the University of Glasgow 12-lead ECG analysis program</i> and <i>Mindray 12-lead Resting ECG Analysis Algorithm</i> for adults and pediatrics  |
| Resting ECG mode   | Records and prints 12-lead resting ECG with 10-second duration  |
| Internal storage   | 1200 ECGs   |
| <p><b>www.mindray.com</b></p> <p>P/N:ENG-R300 datasheet -210285X2P-20240911<br/>©2024 Shenzhen Mindray Bio-Medical Electronics Co.,Ltd. All rights reserved.</p> |   |
| <br><b>mindray</b><br>healthcare within reach                               |   |