



[www.biocare.com.cn](http://www.biocare.com.cn)

# iE 300

## Technical Specifications

**Signal processing specification:**

|                               |                                                                                                    |
|-------------------------------|----------------------------------------------------------------------------------------------------|
| ECG interpretation            | Biocare CardioPro ECG analysis program for adults and pediatrics                                   |
| Acquisition mode              | Simultaneous standard 12-lead acquisition                                                          |
| A/D conversion                | 24 bit                                                                                             |
| Sampling rate                 | 8,000 samples/s                                                                                    |
| Frequency response            | 0.05 Hz ~ 250 Hz                                                                                   |
| Signal measurement range      | -5mV ~ +5mV                                                                                        |
| Common mode rejection ratio   | >115dB                                                                                             |
| Polarization voltage          | $\pm 500$ mV                                                                                       |
| Input circuit                 | Floating circuit input                                                                             |
| Input impedance               | $\geq 50$ M $\Omega$                                                                               |
| Input CIR current             | $\leq 0.1$ $\mu$ A                                                                                 |
| Patient leakage current       | <10 $\mu$ A                                                                                        |
| Time constant                 | $\geq 3.2$ s                                                                                       |
| Noise level                   | $\leq 12.5$ $\mu$ V <sub>p-p</sub>                                                                 |
| Sensitivity threshold         | $\leq 20$ $\mu$ V                                                                                  |
| Calibration voltage           | 1 mV $\pm 3$ %                                                                                     |
| Sensitivity                   | (0.625, 1.25, 2.5, 5, 10, 20, 40, 10/5, 20/10) mm/mV, Auto Gain                                    |
| Filter setting                | EMG filter: 25/35/75/100/150/250Hz<br>Baseline wander filter: 0.01/0.02/0.05/0.35/0.5/0.8Hz        |
| AC filter                     | 50Hz, 60Hz                                                                                         |
| Heart rate range              | 30~300 bpm                                                                                         |
| Special acquisition functions | Lead-off detection, lead overflow, AC interference, baseline wander interference, EMG interference |
| Acquisition time              | 10~24 seconds                                                                                      |

**Display and keyboard specifications:**

|                       |                                                                                                                                                        |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Display type          | 5 inch TFT LCD                                                                                                                                         |
| Display resolution    | 800×480                                                                                                                                                |
| Display data          | Waveforms, heart rate, clock, printing mode, filters, sensitivity, paper speed, system prompt, alarming messages, battery, power indicator, tone level |
| Waveform display mode | 1) Same screen display:<br>3*4, 3*4+1R, 6*2, 6*2+1R, 12*1<br>2) Split-screen display:<br>3*4 , 3*4+1R                                                  |
| Keyboard type         | Silicon quick-access function keys                                                                                                                     |

**Recorder specifications:**

|                     |                                                                   |
|---------------------|-------------------------------------------------------------------|
| Recorder technology | Thermal dot matrix word printing system                           |
| Recorder resolution | 8 points/mm (perpendicular)<br>40 points/mm (horizontal, 25 mm/s) |
| Recorder speed      | (5, 6.25, 10, 12.5, 25, 50) mm/s±5 %                              |
| Recording paper     | 80 mm, roll paper                                                 |

**Standard software specifications:**

|                                |                                                                                                               |
|--------------------------------|---------------------------------------------------------------------------------------------------------------|
| Measurement and interpretation | Supports measurement and interpretation with Biocare CardioPro ECG analysis program for adults and pediatrics |
| Measurement values             | HR, PR interval, QRS duration, QT/QTc interval, P/QRS/T axis, RV5/SV1 amplitude, RV5+SV1                      |

|                                 |                                                                                                                                                              |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                 | amplitude                                                                                                                                                    |
| Minnesota code                  | With newest Minnesota code                                                                                                                                   |
| Working mode                    | Automatic mode, Manual mode, Rhythm mode, Upload mode                                                                                                        |
| DEMO mode                       | Normal ECG, Arrhythmia ECG                                                                                                                                   |
| QTC formula                     | Bazett, Fridercia, Framingham, Hodges                                                                                                                        |
| Rhythm analysis                 | Single rhythm mode: 30-300 seconds                                                                                                                           |
| Extended printing in arrhythmia | Supports extended arrhythmia waveform printing in automatic mode                                                                                             |
| Waveform frozen                 | Supports 300 seconds of waveform frozen                                                                                                                      |
| Pacemaker detection             | Weak, Normal, Enhance                                                                                                                                        |
| Report auto-saved               | Selectable auto-saved file                                                                                                                                   |
| Interpretation printout         | Selectable interpretation printing                                                                                                                           |
| Report preview                  | Preview the report before printing                                                                                                                           |
| Data format                     | ECG, DICOM, XML, JPEG, PDF                                                                                                                                   |
| Patient information setting     | Record No., Name, Gender, D.O.B, Height, Weight, BP, Race, Pacemaker, Medication, Accession No., Ref-physician, Technician, Physician, Room No., User-define |
| Language                        | Chinese, English, Spanish, Portuguese, Russian, Polish, German, Czech, French, Italian, Ukrainian, Turkish                                                   |
| Local memory capacity           | More than 3000 files                                                                                                                                         |

## Report specifications:

|               |                                                              |
|---------------|--------------------------------------------------------------|
| Report type   | Manual report, Simple report, MVB report(Median beat report) |
| Record format | 3*4, 3*4+1R; 1*12, 1*12+1R; 3/2                              |

## External peripheral use:

|                      |                                                        |
|----------------------|--------------------------------------------------------|
| Patient cable socket | Connect to the patient cable                           |
| Two USB port         | Support USB flash disk and barcode scanner             |
| LAN port             | Communication with ECG-1000 workstation software on PC |

## Power supply

|                      |                                                                                                                  |
|----------------------|------------------------------------------------------------------------------------------------------------------|
| Power supply         | AC / DC                                                                                                          |
| AC power supply      | 100 V~240 V, 50 Hz /60 Hz, 80 VA                                                                                 |
| Battery power supply | Rechargeable lithium battery, 11.1V, 2600mAh                                                                     |
| Battery capacity     | Supports about 3 hours for continuous operation, no less than 350 pcs 3 channels ECG exams and reports recording |
| Battery charge time  | Approximately 4 hours for total charge                                                                           |

## Dimensions and weight

|                         |                     |
|-------------------------|---------------------|
| Length × width × height | 281 mm×191 mm×59 mm |
| Weight:                 | About 1.3 kg        |

## Standard accessories

|                 |                                           |
|-----------------|-------------------------------------------|
| ECG Cable       | 10 lead wires,TPU, banana plug, defi, IEC |
| Chest Electrode | Adult chest electrode,Φ4mm,6pcs/set       |
| Limb Electrode  | Adult limb electrode, Φ4mm, 4pcs/set, no  |

|                         |                                                                     |
|-------------------------|---------------------------------------------------------------------|
|                         | LOGO, light blue color                                              |
| Thermal Recording Paper | Roll paper,80mmx20m,no LOGO                                         |
| Paper roller            | ABS fire-proof UL94V-0                                              |
| Power Cord              | L=1900±100mm H05VV-F/3G*0.75<br>AP24/AC24, black, European standard |
| Grounding Cable         | L=4mm UL1015 14AWG                                                  |
| Battery                 | HYLB-1994,11.1V 2600mAh                                             |

## Environment requirements

|   |                                                                                                                      |                        |
|---|----------------------------------------------------------------------------------------------------------------------|------------------------|
| 1 | Transportation                                                                                                       |                        |
|   | Environment temperature                                                                                              | -20℃~+55℃              |
|   | Relative humidity                                                                                                    | ≤95% (No condensation) |
|   | Air pressure                                                                                                         | 70 kPa~106 kPa         |
|   | In accordance with the requirements stipulated in the contract order, the transport process to prevent rain and sun. |                        |
| 2 | Storage                                                                                                              |                        |
|   | Environment temperature                                                                                              | -20℃~+55℃              |
|   | Relative humidity:                                                                                                   | ≤95%(No condensation)  |
|   | Air pressure                                                                                                         | 70 kPa~106 kPa         |
|   | The packaging of ECG stored in the non-corrosive gases and well-ventilated room.                                     |                        |
| 3 | Using                                                                                                                |                        |
|   | Environment temperature                                                                                              | +5℃~+40℃               |
|   | Relative humidity:                                                                                                   | ≤95%(No condensation)  |
|   | Air pressure                                                                                                         | 86 kPa~106 kPa         |

- All rights reserved by Biocare.
- Based on the need of product technical improvement or the file updates, we reserve the right to modify the contents contained in this manual; if the change does not involve safety issues,

the contents are subject to amend without notification

Care from hear<sub>s</sub>

**Shenzhen Biocare Bio-Medical Equipment Co., Ltd.**

**Headquarters** #A735, 7/F, Block A, Shenzhen Mingyou Industrial Products Exhibition & Procurement Center, Baoyuan Road, Xixiang Sub-district, Bao'an District, 518102 Shenzhen, PEOPLE'S REPUBLIC OF CHINA

**Factory** 2/F, West 4th Block, Dayang Road, South, Fuyong Sub-district, Bao'an District, 518103 Shenzhen, PEOPLE'S REPUBLIC OF CHINA

**Tel:** +86-755-27960888

**Fax:** +86-755-27960643

**E-mail:** [sales@biocare.com.cn](mailto:sales@biocare.com.cn) / [support@biocare.com.cn](mailto:support@biocare.com.cn)