DESIGNED AND MANUFACTURED IN SWITZERLAND

CARDIOVIT AT-2 plus

Technical Data CARDIOVIT AT-2 plus

System

Dimensions: 400 x 330 x 101 mm (l/w/h), weight approx. 5 kg

Integrated monitor:
- Size: 120 x 90 mm
- Resolution: 320 x 240 dots

Monitor display:
- Battery status
- Date, time
- Mains operation

Control elements:
User-friendly alphanumeric keyboard, LED indicator and monitor

Power supply:
220 - 240 V (nominal), 50/60 Hz; 110 -115 V (nominal), 50/60 Hz; mains-independent operation thanks to integrated, rechargeable battery, LED indicator for mains operation, power supply unit

Battery capacity:
3 hours of normal use

Printer

Chart paper: Thermo-reactive, z-folded, width 210 mm (A4), approx. 60 m, ready-to-file

Printing technology: Integrated high-resolution thermal printer, 8 dots/mm (amplitude axis), 40 dots/mm (time axis) @ 25 mm/s

Chart speed: 5 / 10 / 25 / 50 mm/s (manual printout)

Sensitivity: 5 / 10 / 20 mm/mV, automatic or manual selection

Printer format: 6 / 12 channel printout, optimal positioning on a width of 200 mm, automatic baseline adjustment

Automatic lead programs:
- Presentation of 6 / 12 channels of the 12 standard leads, recorded simultaneously on one or several A4 pages
- Selection of different report formats

Interfaces: RS-232 connection for spirometry sensor, data transfer to a PC (SEMA 200) or external modem

Safety standards

Safety standard: CF according to IEC 60601-1 and IEC 60601-2-25, UL 2601-1; C22.2 No.601.1-M90

Protection class: I according to IEC 60601-1 (with internal power supply), IIa according to directive 93/42/EEC (medical devices)

Conformity: CE according to 93/42/EEC

Environmental conditions:
- Temperature, operating: 10°C to 40°C
- Temperature, storing: -10°C to 50°C
- Relative humidity: 25 to 95% (non-condensing)
- Pressure, operating: 700 to 1060 hPa

Technical Data: ECG

Patient input: Fully floating and isolated, defibrillation protected (only with original SCHILLER patient cable)

Monitor display:
- 3 selectable leads
- 25 or 50 mm/s
- 5, 10 or 20 mm/mV
- Filter status (on/off)
- Bad electrode contact
- Heart rate (HR)
- mm / mV / mm/s

ECG amplifier:
- Simultaneous recording of all 9 active electrode signals (= 12 leads)
- Sampling frequency: 1000 Hz
- Pacemaker detection: ≥ ± 2 mV/≥ 0.1 ms

Leads: 12 simultaneous leads: Standard/Cabrera

Log file:
- Patient data (name, age, height, weight, BP), user identification
- Listing of all ECG recording conditions (date, time, filter)
- Option: Measurement M and interpretation C: ECG measurement values (intervals, amplitudes, electrical axes), average complexes including optional measurement reference markings, interpretation for children and adult ECGs

Filter

Myogram filter (muscle tremor filter):
25 or 35 Hz, can be activated/deactivated

Line frequency filter: Distortion-free suppression of superimposed 50 or 60 Hz sinusoidal interferences by adaptive digital filtering

Frequency range:
0.05 Hz – 150 Hz (IEC/AHA)

Technical Data: Spirometry (option)

Measured values: **FVC:** FVC, FEV0.5, FEV1.0, FEV3.0, FEV0.5 /FVC, FEV1.0 /FVC, FEV3.0/FVC, FEF0.2-1.2, FEF25-75%, FEF75-85%, PEF, MEF75%, MEF50%, MEF25%, FIVC, FIV1.0, FIV1.0/FIVC, FIV1.0/FVC, PIF, MIF50%, TDEM SVC: SVC, ERV, IRV, TV

MVV: MVV, RR, TV

Presentation (printout and monitor):
- Flow/volume curve
- Time/volume curve
- Measurements table
- Real-time flow curve

Log file:
- Patient data (name, age, height, weight), user identification
- Listing of all recording conditions (date, time, last calibration)
- Flow-volume or volume-time curve
- Actual/predicted value comparison
- Diagnosis
- Possibility to save more than 60 ECG or spirometry recordings

Prediction equation:
Adults: ECCS, Austria, Crapo, Morris, Knudson, Knudson76, Polgar, Berglund, Finland, India, Composite
Children: Quanjer & Tammeling, Austria, India, Knudson, Knudson76, Polgar

Extrapolated predicted values

Pre-/post medication comparison possible

Standards: ATS, OSHA, NIOSH

Sensor: SPIROVIT SP-250, pneumotach flow sensor with disposable mouthpiece

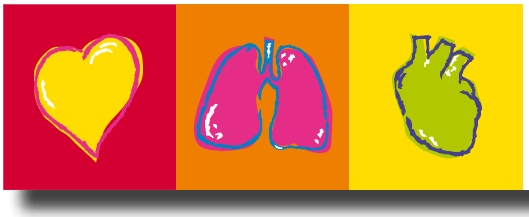
Dimensions SP-250: 118 x 36 x 28 mm, weight approx. 120 g; 4.6 x 1.4 x 1.1 in, approx 0.26 lb

Measuring method: Pneumotachometer

Measurement accuracy: According to ATS standards < 3%

Flow impedance: < 0.2 mbar * s/l at 12 l/s

Sensor: SPIROVIT SP-260: pneumotach flow sensor with reusable mouthpiece



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CARDIOVIT AT-2 plus

Dimensions SP-260: 125 x 36 x 28 mm, weight approx. 160 g;
4.9 x 1.4 x 1.1 in, approx 0.34 lb

Measuring method, measurement accuracy, flow impedance same as for SP-250

Basic Unit:
- 1 sensor, either SP-250 with disposable mouthpiece (art. no. 2.100022) or SP-260 with reusable mouthpiece (art. no. 2.100551)
- Accessories: 2 nose clips and either 1 pack of disposable mouthpieces for the SP-250 (art. no. 2.100077) or 1 pack of disposable filters for the SP-260 (art. no. 2.100123)
- 1 operating manual

Basic equipment CARDIOVIT AT-2 plus

Resting ECG with 12 simultaneous leads, pacemaker detection

Accessories:
- 10-lead patient cable
- 1 set of electrodes or disposable electrodes
- 1 power cable
- 1 pack chart paper
- 1 operating manual

Software options:
- PC based ECG measurement and interpretation program for adults and children
- Possibility to save up to 40 ECG or 40 spirometry recordings
- SEMA-200 program to save, validate and file ECG and spirometry data on a PC

Hardware options:
- Instrument trolley
- Spiro sensor SP-250, SP-260
- Calibration pump

Technical data are subject to changes without prior notice.

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