



We, BTL medical equipment OU, are a part of BTL Industries Ltd and confirm that the equipment we supply is fully compliant with the procurement No. 702898 issued by the LSMU Kaunas Hospital

TECHNICAL SPECIFICATION

PURCHASE OF ELECTROCARDIOGRAPHS

No.	Parameters	Compliance with parameters
1.	Electrocardiograph with delivery, assembly, installation and staff training (direct training, Lithuanian language, at least 14 people)	Electrocardiograph with delivery, assembly, installation and staff training (direct training, Lithuanian language, at least 14 people)
1.1.	Electrocardiograph	BTL 8 Elite
1.1.1.	ECG recording of at least 12 leads	12-lead ECG recording.
1.1.2.	Automatic recognition of the pacemaker is required	Automatic stimulator recognition.
1.1.3.	Protection against a defibrillation impulse is required	Protection against defibrillation impulse.
1.1.4.	12th derivation interpretation algorithm	12th derivative interpretation algorithm.
1.1.5.	12-channel continuous ECG printing	12-channel continuous ECG printing.
1.1.6.	Algorithms for ECG interpretation: should be considered according to the age and gender of the patient. Glasgow or Veritas or equivalent.	ECG interpretation algorithms: evaluated according to the patient's age and gender. Artificial Intelligence AI (the help of artificial intelligence).
1.1.7.	Cardiograph internal memory for at least 300 records (10 sec. auto ECG)	The internal memory of the cardiograph is at least 3500 (10 sec. auto ECG).
1.1.8.	ECG transmission via USB, LAN or equivalent connections	ECG transmission via USB, LAN connections.
1.1.9.	Wireless functionality is required	Wireless function WiFi.
1.1.10.	Display LCD or equivalent type, color, diagonal at least 20 cm	Display LCD type, color, diagonal 30.734 cm.
1.1.11.	Simultaneous viewing of 12-lead ECG curves on the screen	Simultaneous viewing of 12-lead ECG curves on the screen.
1.1.12.	Digital signal processing	Digital signal processing.
1.1.13.	A/D converter at least 24 bits	A/D converter at least 24 bits.
1.1.14.	Optional bandpass filters. The filter setting range is no narrower than 20 - 170 Hz	Optional bandpass filters. Filter setting range 20 - 170 Hz.

1.1.15.	Stimulator recognition function, sampling frequency at least 70000 points/sec (Hz)	Stimulator recognition function, sampling rate at least 100000 points/sec (Hz).
1.1.16.	The accepted frequency range is no narrower than 0.05 - 250 Hz	Acceptable frequency range 0.049 - 250 Hz.
1.1.17.	Heart rate indication within no narrower limits than 30 to 300 bpm	Indication of heart rate between 30 and 300 beats/min.
1.1.18.	Automatic recording of 12-lead ECG in A4 format	Automatic recording of 12-lead ECG in A4 format.
1.1.19.	Manual ECG recording is required, of desired length (optionally at least 6, 12 channels, according to selected derivation groups)	Manual ECG recording, of the desired length (optionally 6, 12 channels, according to selected derivation groups).
1.1.20.	Power supply: 230V, 50 Hz and internal battery. Operation from battery \geq 3h	Power supply: 230V, 50 Hz and internal battery. Operation from the battery for more than 8.5 h.
1.1.21.	A thermal printer in A4 format integrated into the cardiograph body, paper pulling speeds can be selected at least 5, 12.5, 25 and 50 mm/s	A thermal printer in A4 format is integrated into the body of the cardiograph, paper drawing speeds can be selected at 5, 12.5, 25 and 50 mm/s.
1.1.22.	ECG transmission formats - automatically generated DICOM files in the device or through external software, PDF	ECG transmission formats - automatically generated DICOM files in the device or through external software, PDF.
1.1.23.	Complectation: 1. EKG trolley. The trolley must have at least two wheels with brakes, a stand for hanging cables; 2. Set of chest and limb electrodes, adult size; 3. A4 format ECG paper packs, 10 pcs.	Complete with: 1. EKG maker cart. The trolley must have at least two wheels with brakes, a stand for hanging cables; 2. Set of chest and limb electrodes, adult size; 3. A4 format ECG paper packages, 10 pcs .
2.	Electrocardiograph with delivery, assembly, installation and staff training (direct training, Lithuanian language, at least 14 people)	Electrocardiograph with delivery, assembly, installation and staff training (direct training, Lithuanian language, at least 14 people)
2.1.	Electrocardiograph	BTL 8 Elite
2.1.1.	ECG recording of at least 12 leads	12-lead ECG recording
2.1.2.	Automatic recognition of the pacemaker is required	Automatic stimulator recognition.
2.1.3.	Protection against a defibrillation impulse is required	Protection against defibrillation impulse.
2.1.4.	12th derivation interpretation algorithm	12th derivative interpretation algorithm.
2.1.5.	12-channel continuous ECG printing	12-channel continuous ECG printing.
2.1.6.	Algorithms for ECG interpretation: should be considered according to the age and gender of the patient. Glasgow or Veritas or equivalent.	ECG interpretation algorithms: evaluated according to the patient's age and gender. Artificial Intelligence AI (the help of artificial intelligence).
2.1.7.	Cardiograph internal memory for at least 300 records (10 sec. auto ECG)	The internal memory of the cardiograph is at least 3500 (10 sec. auto ECG).

2.1.8.	ECG transmission via USB, LAN or equivalent connections	ECG transmission via USB, LAN connections.
2.1.9.	Wireless functionality is required	Wireless function WiFi.
2.1.10.	Display LCD or equivalent type, color, diagonal at least 20 cm	Display LCD type, color, diagonal 30.734 cm.
2.1.11.	Simultaneous viewing of 12-lead ECG curves on the screen	Simultaneous viewing of 12-lead ECG curves on the screen.
2.1.12.	Digital signal processing	Digital signal processing.
2.1.13.	A/D converter at least 24 bits	A/D converter at least 24 bits.
2.1.14.	Optional bandpass filters. The filter setting range is no narrower than 20 - 170 Hz	Optional bandpass filters. Filter setting range 20 - 170 Hz.
2.1.15.	Stimulator recognition function, sampling frequency at least 70000 points/sec (Hz)	Stimulator recognition function, sampling rate at least 100000 points/sec (Hz).
2.1.16.	The accepted frequency range is no narrower than 0.05 - 250 Hz	Acceptable frequency range 0.049 - 250 Hz.
2.1.17.	Heart rate indication within no narrower limits than 30 to 300 bpm	Indication of heart rate between 30 and 300 beats/min.
2.1.18.	Automatic recording of 12-lead ECG in A4 format	Automatic recording of 12-lead ECG in A4 format.
2.1.19.	Manual ECG recording is required, of desired length (optionally at least 6, 12 channels, according to selected derivation groups)	Manual ECG recording, of the desired length (optionally 6, 12 channels, according to selected derivation groups).
2.1.20.	Power supply: 230V, 50 Hz and internal battery. Operation from battery \geq 3h	Power supply: 230V, 50 Hz and internal battery. Operation from the battery for more than 8.5 h.
2.1.21.	A thermal printer in A4 format integrated into the cardiograph body, paper pulling speeds can be selected at least 5, 12.5, 25 and 50 mm/s	A thermal printer in A4 format is integrated into the body of the cardiograph, paper drawing speeds can be selected at 5, 12.5, 25 and 50 mm/s.
2.1.22.	ECG transmission formats - automatically generated DICOM files in the device or through external software, PDF	ECG transmission formats - automatically generated DICOM files in the device or through external software, PDF.
2.1.23.	Complectation: 1. EKG trolley. The trolley must have at least two wheels with brakes, a stand for hanging cables; 2. Set of chest and limb electrodes, adult size; 3. A4 format ECG paper packs, 10 pcs.	Complete with: 1. EKG maker cart. The trolley must have at least two wheels with brakes, a stand for hanging cables; 2. Set of chest and limb electrodes, adult size; 3. A4 format ECG paper packs, 10 pcs.

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