Datasheet

DefiMonitor **XD**



Variante	basic device	AED Option	PACER Option	SP02 Option
Defi Monitor XD				
DefiMonitor XD PACER				
DefiMonitor XD SP02				
DefiMonitor XD PACER, SP02				
DefiMonitor XD AED				
DefiMonitor XD AED, PACER				
DefiMonitor XD AED, SP02				
DefiMonitor XD AED, PACER, SP02				

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MONITOR

Model: LCD Monitor

Dimensions: 115 x 86 mm (diagonal 144mm,

5,7")

Resolution: 320 x 240 Pixel **Displays:** Heart rate, Sp02

ALARMS

Signal: Delay

 $\label{eq:high-priority} \begin{array}{l} \text{High-priority alarm:} < 10 \text{ s} \\ \text{Information signal:} < 10 \text{ s} \\ \end{array}$

PHYSICAL PROPERTIES

Dimensions:

33 x 16 x 29 cm (w x d x h)

Weight:

approx. 5,3 kg (without energy module)

Protection class of applied parts:

defibrillation - proof, type CF

Protection class of casing:

Ingress of foreign matter:

IP3X protection against solid foreign matter

with diameter of 2.5 mm

Ingress of liquid:

IPX3 protection against spraying water

Operating mode:

countinuous

Classification:

Class IIb (MDD Annex IX Rule 09)

PRINTER

Model: Thermal printer

Number of channels: 1 to 3 channels

Type of paper: Thermal paper

Paper width: 58 mm Printing speed: 25 mm/s, 50 mm/s

MEMORY

Model: Compact Flash Card 2GB

Voltage supply

Built-in power supply:

110 ... 240 V, 50/60 Hz

Power consumption:

110W

Protection class:

II for mains usage

AkuPak LITE XD*:

Lithium Ion Akku

internal supplied with power

Weigth: approx. 500 g

Nominal capacity: 2500 mAh

Energy content: 33 Wh Charging time **360** J:

 12 ± 3 s when run at rated voltage from mains

 12 ± 3 s when run with fully charged, new

AkuPak LITE XD

 12 ± 3 s when operating at 90 % rated voltage

 12 ± 3 s when run with an AkuPak LITE XD after

discharge of energy for 15 shocks

 \leq 25 s maximum time from switching on until ready for manual defibrillation of 360 J

 \leq 33 s maximum time between switching on and readiness for AED-defibrillation of 360 J

Charging Time (0 - 90 % SOC):

approx. 3:00h in the **Defi**Monitor XD

Number of shocks 200 J:

160

Number of shocks 360 J:

95

Operating time (monitoring):

minimum 5 hours (for AkuPak LITE XD after three initial shocks in AED-Mode, ECG- / SpO2-

monitoring until device is switched off)

Operating time (pacing):

minimum 3 hours 20 minutes (for AkuPak LITE XD after three initial shocks in AED-Mode, ECG-

/ Sp02-monitoring until device is switched off)

OPERATING CONDITIONS

Temperature:

0 °C to 45 °C, 32 °F to 113 °F

Humidity:

15 % - 95 % non condensing

Air pressure:

620 hPa - 1060 hPa

STORAGE CONDITIONS

Temperature:

-20 °C to +50 °C, -4 °F to +122 °F

Humidity:

15 % - 95 % non-condensing

Air pressure:

620 hPa - 1060 hPa

TRANSPORT CONDITIONS (MAX. 10 DAYS)

Temperature:

 $-25 \, ^{\circ}\text{C} \text{ to} + 50 \, ^{\circ}\text{C}, -13 \, ^{\circ}\text{F} \text{ to} + 122 \, ^{\circ}\text{F}$

Humidity:

15 % - 95 % non-condensing

Air pressure:

620 hPa - 1060 hPa

MONITORING

Heartrate

Measurement range: 30 - 300 BPM

Resolution: 1 BPM Display update rate: 1s Accuracy: \pm 10 % or \pm 5 bpm,

depending on which is larger

ECG

Leads: I, II, III, aVR, aVL, aVF **Impedance:** 500 – 2500 Ohm

Power output for the measurement of electro-

des that fell off:

 $4~\mu\text{A}$ RMS, 30~kHz, sine-shaped

Detection of electrodes that fell off:

detected and shown

Input

Dynamic input rate:

 \pm 5 mV AC, \pm 300 mV DC

Voltage range for detecting QRS complexes:

 \pm 0,5 mV \sim \pm 5 mV

QRS complex signal width:

40 to 120 ms (Q to S)

Output

Frequency response (monitor):

0,67 to 40 Hz

ECG sensivity (monitor):

5. 10. 15 mm/mV

Display sweep speed: 25.0 mm/s

Pacing pulse detection:

0n

Alarm for electrode separation:

Voice message

ECG/paddle input classification:

CF, defibrillation-proof



MANUAL DEFIBRILLATION

Impedance range: 23 Ω - 200 Ω

Measurement frequency impedance: 30 kHz

Energy levels adult mode:

2 J, 5 J, 7 J, 10 J, 20 J, 30 J, 50 J, 70 J, 100 J,

150 J, 200 J, 250 J, 300 J, 360 J

Energy levels pediatric mode:

2 J, 5 J, 7 J, 10 J, 20 J, 30 J, 50 J, 70 J, 100 J

Time until internal discharge:

15 s

pulse and energy output:

60 ms

Time until charged up to 360 J:

12 s

Maximum time from switching on until ready

for defibrillation of 360J:

25 s

33 s

Maximum time between the start of analysis and readiness for defibrillation of 360J in the

AED-Mode:

Schock method:

Paddles, SavePads (Connect) for pediatric patients: SavePads Mini

AED-MODE (OPTION)

Impedance range: 23 Ω - 200 Ω

Measurement frequency impedance: 30 kHz

Shock method:

Multifunction electrodes for adults or pediatrics Measurement accuracy

Asystole threshold: $\geq 200 \, \mu V$ **Analysis duration:** 4 - 20 s

Adult mode energy stages to 50 Ω :

290 J, 340 J, 360 J

Pediatric mode energy stages to 50 Ω

50 J, 70 J, 100 J Sensitivity: > 90 % Specificity: > 95 %

Real predictive value: > 90 %

False positive rate: < 5 %

PACER (OPTION)

Impedance range: 23 Ω - 200 Ω

Measurement frequency impedance: 30 kHz

Modes: FIX, DEMAND, OVERDRIVE

Stimulation frequency:

FIX, DEMAND: 30 ppm - 180 ppmOVERDRIVE: 30 ppm - 250 ppm

Stimulation frequency accuracy: $\pm 0.5 \%$

Energy output via:

Multifunction electrodes

Stimulation intensity:

10 mA - 180 mA

Stimulation intensity accuracy:

 \pm 10 % or + 3/-1 mA Puls width: 20 ms

Puls width accuracy: ± 100 μs

Refractory period:

Maximum delay time between synchronisation 340 ms for a stimulation frequency < 100 bpm 240 ms for a stimulation frequency ≥ 100 bpm

> Sp02 (OPTION) Sensor

Nellcor Sp02-Fingersensor FLEXMAX Operating conditions:

0 °C to 40 °C, 32 °F to 104 °F

Measurement Range

Puls oximetry saturation Sp02:

1 % - 100 %

Pulse rate measurement range:

20 - 250 bpm

Wavelength red: 660 nm

Wavelength infrared: 900 nm

Output power:

< 5mW

Power dissapation: 52,5 mW

Sp02 input classification:

CF, defibrillation-proof

Adult: $70 - 100 \% \pm 2 \text{ digits}$

Adult and Neonate Low Sat:

 $60 - 80 \% \pm 3 \text{ digits}$

Neonate:

 $70 - 100 \% \pm 2 \text{ digits}$

Low Perfusion:

 $70 - 100 \% \pm 2 \text{ digits}$

Adult and Neonate with motion:

 $70 - 100 \% \pm 3 \text{ digits}$

Pulse rate measurement accuracy

Adult and Neonate:

 $20 - 250 \pm 3$ bpm

Low Perfusion:

 $20 - 250 \pm 3$ bpm

Adult and Neonate with motion:

 $48 - 127 \pm 5$ bpm

* All specifications apply to a fully charged new AkuPak LITE XD and a temperature of 20 degrees Celsius ± 5 degrees Celsius AkuPak LITE XD: The AkuPak LITE XD typically lasts up to the earlier of 4 years or 1,000 charging cycles under the following conditions: The AkuPak LITE XD is inserted to the device, the device only stays in standby mode and is not used, but only performs usual self-tests at the intervals recommended by Metrax. The environmental temperature is at all times at 23 degrees centigrade (\pm /-2 degrees centigrade), so that the lifetime will be significantly lower if the devices are stored at outside temperatures. Due to various parameters that might influence the lifespan of the AkuPak, Metrax does not assume any liability with regard to the lifespan of the

AkuPak.





Product Updates

- New Plug / SavePads
- New Sp02-Module
- CPR@Charging
- Outprint of selftest
- AkuPak LITE XD
- New Articlenumbers



