BODYGUARD ON BOARD

PROFESSIONAL DEFIBRILLATORS FOR EMERGENCY MEDICAL USE

DefiMonitor

SYNC

CHARGE

360

300

200

0

MAN

A



CAREER JUMP INTO A SECOND LIFE

PRIMEDIC™ DEFIBRILLATORS -SALTO VITALE CONTRA EXITUS

THURSDAY, 10 JUNE -FRANKFURT CITY - 17.30 P.M.

Katharina S. is hyped up. Just one more email. Then pack my suitcase quickly. Off to the next strategy workshop. She loves her job, her husband, her children. Suddenly, her heart rhythm collapses. She falls into an abyss of blackness. **Cut.**



PROFESSIONAL DEFIBRILLATORS WITH PROGRESSIVE CUTTING-EDGE TECHNOLOGY

At the boundary between life and death – where your life hangs by a silken thread our sophisticated PRIMEDIC[™] defibrillators provide the decisive impulse – bringing you back to life. Our high-performance units from the DefiMonitor XD and HeartSave families provide the support to allow professional users to make the quantum leap in emergency and reanimation medicine. Life is not a coincidence – nor is it a coincidence that our technologically sound units have been used for decades by rescue and health services, practice clinics, aid organisations and doctors: Day in day out, minute by minute and second by second the PRIMEDIC[™] units demonstrate practicality, fast availability and unequalled simplicity in handling, even in extreme situations.

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PRIMEDIC[™]. Saves Life. Everywhere.





DEFIMONITOR XD -THE SOPHISTICATED HIGH-PERFORMANCE INSTRUMENT WITH MULTIFUNCTIONAL FEATURES

As a manufacturer of innovative product programmes for emergency medicine, we unite expert experience from clinics and emergency services world-wide. This amassed know-how is then consistently used to optimise our instruments. The DefiMonitor XD combines an instrument design that is compact and tried and trusted in practice with the highest possible degree of safety and simple handling.

Quality criteria such as the extremely robust casing with shaped inlets, lightweight, comprehensive software functions and useful accessories have been the deciding factors for professional users in emergency medicine for decades. Even in extreme situations, targeted handling is ensured.

The DefiMonitor XD also has special carrier and charge systems that can be used to position the instrument individually anywhere.

The DefiMonitor XD family - high-value instruments with the best cost-benefit ratio

Optional instrument configurations

Our XD products can optionally be fitted with additional configurations so you can monitor the patient even more safely:

- > Nellcor SpO₂Pulse oximeter
- > Transthoracic external heart pacemaker
- Automatic VF recognition

The DefiMonitor XD family – Technology with its finger on the pulse



EXPERTISE EXTENDS TO THE PADDLES

Quick and easy: The integrated paediatric defibrillation electrodes are always available at the intervention location and do not require an adapter. With an innovative bayonet mechanism, you can easily convert an adult electrode into a paediatric electrode in seconds. This means that the paediatric paddles are always there when you need them – with the DefiMonitor XD.

Full performance - steady grip: Whether ergonomically-shaped external defibrillator paddles or the adhesive electrodes "SavePads", free hand defibrillation is guaranteed at all times.







INTELLIGENT SOFTWARE AND BIPHASIC DEFIBRILLATION TECHNOLOGY FROM PRIMEDIC™

Detailed software functions and well thought-out hardware equipment characterise the competence spectrum of all PRIMEDIC[™] units:

The removable storage cards in the DefiMonitor XD family can, optionally, be used to transfer all the recorded ECG data to any commercially-available PC or to archive the data simply and fuss free. The freely selectable voice recording system is standard on all XD products and can optionally be used for evaluation purposes.

The high-contrast Blue-Mode-TFT LC Display provides optimum monitor viewing, even under bright environmental light conditions. The monitoring cable can be used to permit a free choice as to which of the six options of ECG leads you wish to show on the display. An integrated thermographic printer provides rapid printouts in the auto, online or memo modes.

The DefiMonitor XD with Current Controlled Defibrillation (CCD): Biphasic defibrillation technology used in the PRIMEDIC[™] DefiMonitor XD spares the patient's heart muscles. The impulse output generates a current-regulated defibrillation impulse, which eliminates damaging peak loads: specific to each patient, gently and effectively.



ROUGH CONDITIONS IN SITU - NO PROBLEM



The toughest of conditions in situ require reliable and extremely sound units. For this reason, the DefiMonitor XD has been equipped with shock-absorbing foam inlets and an unbreakable plastic housing. The internal technology is thus reliably protected from knocks and exposure to the weather and remains fully functional and ready to use under all circumstances.

HeartSave 6

1 Monitor/Operator Guideline

Simple and intuitive operation of the semi-automatic defibrillator thanks to high-resolution 4.7" Blue-Mode monitor, display of spoken instructions and exact frequency stipulation during the entire application process

2 Trigger button

Genuine one-button operation. Save lives at the touch of just one button. After clearance has been given, pressing the trigger button triggers defibrillation

3 Connection jack

Connection for SavePads or ECG monitoring cable

4 Setup menu

Configuration in setup menu, option to select verbal instruction, switch over to manual operation

5 Status display

The status display will inform you about the operating status (regular self-tests)

THE PROFESSIONAL FOR THE PROFESSIONALS

From the 6 channel ECG to SpO_2 monitoring, the HeartSave 6 series provides everything you need for emergency monitoring

Manual operation / synchronous defibrillation

Once activated, the HeartSave 6/6S is in Automatic Mode.

If required, the user can switch the instrument over to manual operation by pressing a button. If, when in manual operation, a QRS complex is detected, synchronous markers are automatically assigned to the R wave and the cardioversion is enabled. The energy stages can be selected from the following in the manual mode: 50 J, 100 J, 200 J, 300 J and 360 J.

Monitoring

The 3-pin ECG patient cable included in the scope of delivery allows cost-effective patient monitoring. By simply switching plugs, the highest possible degree of flexibility is attained.

Features:

Spoken instructions in three languages Compact Flash Card, ECG viewer PRIMEDIC[™] AkuPak (NiCd) or 6-year lithium battery Comprehensive alarm functions



HeartSave 6S



SpO₂ measurement In addition to the functions of the HeartSave 6, the HeartSave 6S is enabled for SpO₂ measurement.





ACCESSORIES



PRIMEDIC[™] AkuPak

Rechargeable battery with charging contacts for charger and socket for PRIMEDIC[™] PowerPak



PRIMEDIC[™] Charger Base Vehicle charging bracket (12V) for HeartSave and XD



PRIMEDIC[™] PowerPak Charger unit for AkuPak



PRIMEDIC™ accessories case XD with storage pockets and carrying strap





PRIMEDIC™ SavePads Connect (1 pair)



PRIMEDIC[™] SavePads Connect cable, 2 pole for connecting PRIMEDIC[™] SavePads Defibrillation electrodes for adults including cables and plugs



PRIMEDIC[™] EKG patient cable 3 pole for connecting ECG electrodes for 6 channel ECG, including cables and plugs. Only for monitoring Additional accessories available on request.

TECHNOLOGY AT THE BEATING PULSE OF LIFE

Since 1973, we have combined our outstanding expertise with intelligent medical technologies and the latest clinical studies to support the development, production and sales of our tried and tested professional and automatic defibrillators of the PRIMEDIC[™] brand.

A spirit of pragmatic innovation and many years of experience is the lifeblood pumped into our daily research and development work.

Premium quality products – made in Germany: For emergency rescue personnel across the globe, PRIMEDIC[™] defibrillators and mobile ultrasound devices stand for the highest safety standards, swift readiness for use and exceptionally ease-of-use - all at an excellent price/performance ratio. Throughout their entire life-cycles, our products are distinguished by an uncompromising approach to quality and unrestricted functional capability, even under the toughest operating conditions.

PRIMEDIC[™]. Saves Life. Everywhere.

| | | HeartSave HS6 | HeartSave HS6S | DefiMonitor XD1 | DefiMonitor XD3 | DefiMonitor XD10 | DefiMonitor XD30 | DefiMonitor XD100 | DefiMonitor XD110 | DefiMonitor XD300 | DefiMonitor XD330 |
|---|---|---------------|----------------|-----------------|------------------------|------------------|-------------------------|-------------------|-------------------|-------------------|-------------------|
| Defibrillation | tus phone surrent controlled impulses outsmal | | | | | | | | | | |
| Impulse shape: Energy in the automatic mode | two-phase, current-controlled impulses, external 140 – 360J increasing energy in accordance with patient impedance | • | • | • | • | • | • | • | • | • | • • |
| Manual energy stages | 50 J, 100 J, 200 J, 300 J, 360 J | • | • | | | | | | | | |
| | 5 J, 10 J 20 J, 30 J, 50 J, 100 J, 200 J, 300 J, 360 J | | | • | • | • | • | • | • | • | • |
| Charge time: | < 6 sec. for 200J | • | • | • | • | • | • | • | • | • | • |
| Cardioversion | Auto-synchronous mode | • | • | | | | | | | | |
| | Manual activation QRS Marker | • | • | • | • | • | • | • | • | • | • |
| ECG | | | | | | | | | | | |
| Derivation | Eindhoven I, II, III Goldberger avL, avR, aVF | • | • | • | • | • | • | • | • | • | • |
| Patient resistance | 23-200 Ohm | • | • | • | • | • | • | • | • | • | • |
| Heart rate | 30-300 per min 30-300 per min | • | • | • | • | • | • | • | • | • | • |
| Alarms | SU-SUD per min | • | | • | • | • | • | | • | • | |
| VF recognition | | | | | | | | | | | |
| VF recognition | 7-12 s | • | • | | | | | • | • | • | • |
| Analysis time VF threshold | 200 μV | | • | | | | | • | • | • | • |
| Asystole threshold | <200 µV | • | • | | | | | • | • | • | • |
| Artefact detection | | • | • | | | | | ٠ | ٠ | • | • |
| Pacemaker detection | | • | • | | | | | • | • | • | • |
| Monitor | | | | | | _ | | | | | |
| Model Dimensions | TFT, LCD-Blue-Mode 95 x 72 mm (diagonal 4.7"/120 mm) | • | • | • | • | • | • | • | • | • | • |
| Dimensions | 115 x 86 mm (diagonal 5.7"/144mm) | • | | • | • | • | • | • | • | • | • |
| Resolution | 320 x 240 pixels | • | • | • | ٠ | • | • | • | • | • | • |
| Pacer | | | | | | | | | | | |
| Transthoracic heart pacemaker (NIP) | | | | | | • | • | | • | | • |
| Modes | Fix, Demand, Overdrive | | | | | • | • | | • | | • |
| Stimulation frequency | 30 – 180 paces per minute (Fix, Demand) 30 – 250 paces per minute (Overdrive) | | | | | • | • | | • | | • |
| Impulse shape: | 10 mA 180 mA (Fix, Demand, Overdrive) | | | | | ٠ | • | | ٠ | | • |
| Impulse current | Rectangle, 20 ms | | | | | ٠ | ٠ | | ٠ | | • |
| Refractory time (Demand) | 340 ms (Heart frequency ≤ 100 bpm) 240 ms (Heart frequency > 100 bpm) | | | | | • | • | | • | | • |
| QRS Marker | In the demand mode | | | | | • | • | | • | | • |
| Pulse oximeter Model | Nellcor OxiMax | | • | | • | | • | | | • | • |
| | | | | | | | | | | | |
| Defibrillation electrodes Adhesive electrodes (hands free) | | • | • | | • | • | • | • | • | | • |
| Shelf life | 36 months | • | • | • | • | • | • | • | • | • | • |
| Cable length | 1.5 m SavePads AED | • | • | | | | | | | | |
| | 3.5 m SavePads Connect | | | • | • | • | • | • | • | • | • |
| Active electrode surface | 164 cm ² overall | • | • | • | • | • | • | • | • | • | • |
| Paddles | With built-in paediatric electrodes | | | • | • | • | • | • | • | • | • |
| Printer | | | | | | | | | | | |
| Model | Thermal direct process | | | ٠ | • | • | • | • | • | • | • |
| Resolution Paper width | 200dpi | | | • | • | • | • | • | • | • | • |
| Paper width Print width | 58 mm 50 mm | | | | | • | • | • | • | • | |
| Advance | 25 mm/s / 50 mm/s | | | • | • | • | • | • | • | • | • |
| Operating modes | AUTO, ONLINE, MEMO print | | | • | • | • | • | • | • | • | • |
| Event marking | Printout via MEMO print | | | • | • | • | • | • | • | • | • |
| Data management | 05 and (00D) | | | | | | | | | | |
| Removable memory Data/voice recording | CF card (2GB) > 90 h data and voice recording | • | • | • | • | • | • | • | • | • | • |
| | > 90 h data and voice recording > 75 h data and voice recording | | | | • | | • | | | • | • |
| Voice recording can be | | | | | | | | | | | |
| activated/deactivated | | • | • | • | • | • | • | • | • | • | • |
| Read out software | | • | • | • | • | • | • | • | • | • | • |

| Power supply | | HeartSave HS6 | HeartSave HS6S | DefiMonitor XD1 | DefiMonitor XD3 | DefiMonitor XD10 | DefiMonitor XD30 | DefiMonitor XD100 | DefiMonitor XD110 | DefiMonitor XD300 | DefiMonitor XD330 |
|--------------------------|---|---------------|----------------|-----------------|-----------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| Battery 6 | | | | | | | | | | | |
| Model | LiMn02 | • | • | | | | | | | | |
| Voltage | 15 V | • | • | | | | | | | | |
| Capacity (nominal) | 2.8 Ah | • | • | | | | | | | | |
| Service life | 6 years | • | • | | | | | | | | |
| Discharges/shocks | 200 @360J | • | • | | | | | | | | |
| Monitoring | 15 h | • | • | | | | | | | | |
| AkuDak | | | | | | | | | | | |
| AkuPak | NIOT | | | - | | | | | | - | |
| Model | NiCd 12 V | • | • | • | • | • | • | • | • | • | - |
| Voltage | | • | • | | | | | | | • | - |
| Capacity (nominal) | 1.4 Ah | • | • | • | • | • | • | • | • | • | • |
| Discharges/shocks | 70 @200J 6h | • | • | • | • | • | • | • | • | • | - |
| Monitoring | 4 h (with SpO2) | • | • | | | | | | | | |
| | 3h | | - | | | | | | | | - |
| | 311 | | | • | • | • | • | • | • | • | |
| Charge time: | approx. 2.5 h | | | • | • | • | • | • | • | • | • |
| PowerLine | | | | | | | | | | | |
| Voltage | 90 V 264V / 50Hz/60Hz | • | • | | | | | | | | |
| Built-in power supply | | | | | | | | | | | |
| Voltage | 90 V 264V / 50Hz/60Hz | | | • | • | • | • | • | • | • | • |
| Battery charging | Possible in the device instrument | | | • | • | • | • | • | • | • | • |
| Environmental conditions | | | | | | | | | | | |
| Operating conditions | 0°C 50°C (3095% rel. humidity without condensation, 700 1060 hPa) | • | • | • | • | • | • | • | • | • | • |
| Storage conditions | -20°C +70°C (3095% rel. humidity without condensation, 500 1060 hPa) | • | • | • | • | • | • | • | • | • | • |
| Resuscitation guidelines | | | | | | | | | | | |
| Selectable AHA/ERC | | • | • | • | • | • | • | • | • | • | • |
| Approval | | | | | | | | | | | |
| Standards | IEC60601-1:1988+A1:1991+A2:1995 (Electrical Safety of Med. Electrical Devices) | • | • | • | • | • | • | • | • | • | • |
| | IEC60601-1-2:2001 (Electromagnetic compatibility) | • | • | • | • | • | • | • | • | • | • |
| | IEC60601-1-4:1996+A1:1999 (Programmable electrical medical systems) IEC60601-2-4:2002 (Defibrillators) | • | • | • | • | • | • | • | • | • | • |
| | EN1789:2003 (Ambulance standard) | | | | | | | | | | |
| | CEN EN ISO9919:2005 (Pulse oximeter standard) | | • | | • | | • | | | • | • |
| Protection class | IP55 | • | • | | | | | | | | |
| | IP33 | | | • | • | • | • | • | • | • | • |
| | | | | | | | | | | | |
| Dimensions | | | | | | | | | | | |
| Height x Width x Depth | approx. 25 cm x 28 x 9 cm | • | • | | | | | | | | |
| | approx. 33 cm x 29 x 16 cm | | | • | • | • | • | • | • | • | • |
| Weight with power supply | approx. 2.3 kg | • | • | | - | | - | | | | |
| | approx. 5.9 kg | | | • | • | • | • | • | • | • | • |





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ALARM

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