**TREATMENT MODES**

**HEMODIALYSIS**
- Double-needle dialysis
- Single-needle dialysis (single pump)
- Single-needle dialysis (double pump)
- Isolated dialysis

**HEMODIALYSIS WITH AUTOTRANSFUSION**
- HFR Evolution®
- HFR Equilibrium

**HEMODIAFILTRATION**
- HDF Pre or Post dilution
- HDF Pre or Post dilution Paired on-line HDF
- On-line Mid-Dilution HDF

**PROFILES (applicable to all treatments)**
- Partial conductivity
- Total conductivity
- Ultrafiltration
- Heparin

**APPLICATIONS**
- Natrium, Lector, Sphygmo - Hemox and Pulsar (optional)

**EXTRACORPOREAL CIRCUIT PRESSURE MONITORING**
- Venous pressure: -400 ÷ 800 mmHg
- Arterial pressure: -400 ÷ 800 mmHg
- Intussusception pressure (Pint): -400 ÷ 800 mmHg
- Purrific pressure (Ppurr): -400 ÷ 800 mmHg
- Blood filter ultrafiltration pressure (in HFR only) (Puf): -400 ÷ 800 mmHg
- HFR blood filter TMP: Ppurr - Puf

**DIMENSIONS AND WEIGHT**
- Height: 1740 mm
- Depth: 755 mm
- Width: 500 mm
- Weight: 91 kg

**SENSORS**
- Natrium, Lector, Sphygmo - Hemox and Pulsar (optional)

**BLOOD FLOW CONTROL**
- Double-needle flow: 20 ÷ 700 mL/min in steps of 10 mL/min
- Single-needle flow (single pump): 20 ÷ 700 mL/min in steps of 10 mL/min with "stroke-pressure" control
- Single-needle flow (double pump): 20 ÷ 700 mL/min in steps of 10 mL/min with "pressure-stroke" control and automatic efficiency and switching pressure adaptive control system

**INFUSION**
- Infusion flow in on-line HDF: from 0.5 to 21 L/h
- On-line infusion: ±10%
- End-infusion detector: Ultrasound

**ELECTRICAL POWER SUPPLY**
- Voltage: 110/240 VAC ± 10%
- Frequency: from 50 to 60 Hz
- Absorption: mean 1000 W (flow 800 mL/min - Tin 17° C - Tdial 37,5° C - Tamb 20° C) maximum 230V 8A, 115V 16A

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**DISINFECTIONS**
- Full chemical disinfection: Amuchina, Oxagal (38°C), user
- Full chemical disinfection with dwell time: OXAGAL agent, duration < 80 h
- Rot descaling: Citric acid, user
- Heat descaling: Max 94°C - Mean 85°C
- Weekly disinfection: configurable
- Centralised disinfection: configurable

**WATER SUPPLY**
- Quality: in conformity with national and international standards, e.g. AAMI, WQD-1998
- Input temperature: 5°C ± 32°C
- Input pressure: 0.9 – 4.0 bar
- Water filter: Multiport
- Centralised kit: input water pressure 0.9 – 7.5 bar; input temperature 5° – 94°C (in rinsing and maintenance)

**EXTERNAL CONNECTIONS**
- RS232 interface for external connections (opto-isolated)

**SAFETY STANDARDS**
- General standards: IEC 60601-1, EN 60601-1
- Collateral standards: IEC 60601-1-1, EN 60601-1-1
- IEC 60601-1-2, EN 60601-1-2
- IEC 60610-1-4, EN 60610-1-4
- Particular standards: IEC 60061-2-16, EN 60061-2-16
- IEC 60061-2-30, EN 60061-2-30
- Other standards: ISO 14971, EN ISO 14971

**TECHNICAL DATA**

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**APPLICATIONS**
- Kt/V, thermal balance, sodium balance, Cardium (if Pulsar is present) measurement

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