AquaA

FRESENIUS MEDICAL CARE
RENAL TECHNOLOGIES

AquaHT Data Sheet

Heat disinfection system for AquaA or AquaA A2

Compliance with ISO Standards

The option **AquaHT** (heat disinfection system) streamlines compliance with ISO dialysis water quality standards

ISO 23500-1	Part 1: **addresses** guidance for the preparation and quality management of fluids for hemodialysis and related therapies
ISO 23500-2	Part 2: **covers** water treatment equipment for hemodialysis applications and related therapies
ISO 23500-3	Part 3: **specifies** minimum requirements for water for hemodialysis and related therapies

The fully automatic heat disinfection enables you to fulfill the disinfection strategy specified in ISO 23500-1 in the best possible way

Key features & functionality

- Thermal heat disinfection based on the A0 concept according to ISO 15883-1
- Heat disinfection of up to three dialysis water distribution loops
- Integrated hot rinse for hemodialysis devices
- Membrane heat disinfection for both stages AquaA and AquaA2
- Membrane heat disinfection with purified water
- Leakage monitoring during heating-up process
- Detailed heat disinfection reporting with A0 value documentation
- Monitoring of performance data / heat disinfection quality records and trend monitoring
- Tank level monitoring via pressure measurement
- Dead space-free design
- 100 mm isolated hot water tank
- Variable tank level & temperature configuration for energy saving
- Individually programmable heat disinfection timer

Certifications

- 510 (k) K213507
- UL Certified

Technical Data

Specifications

Hemodialysis devices	Up to 35 devices @ 10 liters hot dialysis water consumption per hemodialysis system
Hot tank volume	100–380 liters; adjustable
Hot tank storage temperature	65–85 °C; adjustable
Disinfection temp. membrane	60–82 °C; adjustable
Disinfection temp. distribution loop	60–87 °C; adjustable
Heater output	Max. 19.5 kW temperature-controlled heater in different heating levels
Dimensions in mm (h × w × d)	1840 mm × 800 mm × 1200 mm Distance between AquaA or AquaA2 and option AquaHT is 500 mm
Footprint in m^2	0.96 m^2
Weight in kg (empty / filled)	210 kg / max. 630 kg depends on the adjustable hot tank volume
Operating output pressure	Max. 6 bar
Operating flow	Up to 2500 L/h @ 5 bar counter pressure
Inlet & outlet connection	Clamp stainless steel
Drain water connection	Min. DN 50 tank overflow
Noise level	Depends on the noise level of the master system AquaA

Electrical supply

Electrical supply / three-phase current	208 V 60 Hz; 3 / N / PE
Power consumption max.	22 kVA
Radiated heat / loss	0.15 kW @ standby 2.65 kW @ heat disinfection
Overcurrent protection (Circuit breaker rating)	80 A @ 208 V 60Hz Tripping characteristic C, D, K, or comparable (due to high motor starting currents)
Type of protection against electric shock	Protection class I
Applied parts classification	Type B
Degree of water protection	Drip-proof (IPX1)
Leakage currents	According to ANSI/AAMI ES 60601-1 for 208 V, 60 Hz)
Overvoltage category	II
Pollution severity	II
Material group	IIIb
Operating mode	Continuous operation

Operating conditions

Inlet water	Dialysis water
Atmospheric pressure	Ambient pressure: 700–1150 hPa
Ambient temperature range	+5 °C to +35 °C
Relative humidity	20 to 80% @ 20 °C (non-condensing)
Installation altitude	up to 2000 m (above sea level)

External connection options

Volt-free contacts	24 V / 1 A for the connection of external status information Alarm, Warning, Heat Disinfection, Loop heat disinfection

Transport and storage conditions

Storage temperature range	+5 °C to +40 °C (protect from frost)
Atmospheric pressure	500–1150 hPa
Relative humidity	20-70% @ 20 °C (non-condensing)

Materials in contact with dialysis water

Materials used	Biological evaluation of medical devices according to ISO 10993–1

Product codes

AquaHT heat disinfection
AquaHT: 24-00HT-1

Indications for Use

The AquaA Water Purification Systems are reverse osmosis units intended for use with hemodialysis systems to remove organic and inorganic substances and microbial contaminants from the water used for treating hemodialysis patients or other related therapies. These devices are intended to be a component in a complete water purification system and are not complete water treatment systems. Each reverse osmosis unit must be preceded by pre-treatment devices and may need to be followed by post-treatment devices as well, to meet current AAMI/ANSI/ISO and Federal (US) standards.

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