



X-ray Tube Chiller

Data Sheet



The KMW3000C is a high quality, simple and economic cooling device of the water to water type. Purpose built by Agilent Technologies to provide cooling water to the X-ray tube the KMW3000C serves to isolate the X-ray tube's sensitive cooling circuit from potentially poor quality of tap water.

Features

- High efficiency heat transfer
- Temperature stabilisation of the cooling water
- Automatic flow control
- High temperature protection
- Protection against overpressure
- Protection against disconnection or break of the cooling pipe system
- Control of the cooling water level in the container
- Compact design
- Low noise level



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The KMW3000C chiller stabilises the temperature of the experimental set up. It is equipped with a water flow sensor, and tap water is filtered in an externally attached 50 µm fiber filter before entering the unit through the manual cut off valve. Tap water is further directed to the temperature-modulated valve and then to the heat exchanger. The temperature modulated valve is responsible for temperature stabilisation in the closed circuit, simultaneously optimising the tap water consumption. The closed circuit starts at the container, which is a water reservoir for all the devices to be cooled. A special, constant flow pump, powered by an electric motor, takes the water from the container through the suction filter and manual filter in front of the unit. Water returning from the cooled device enters the manual valve and is directed to the pressure sensor, heat exchanger and finally back to the container.

The control unit checks the temperature and the water level inside the container and pressure sensors and also checks the operation of the pump's motor. Additionally it displays the state of the unit using three signal lamps and gives the "enable" signal to control the power producing device.

Electrical system

Power connection	1/N AC 230 V ± 10%, 50/60 Hz
Maximum power consumption	300 W
Maximum mains current	1.2 A
Main fuse	6.3 A
Ground terminal	2.5 min ² Cu

Technical data

Cooling ability	3000 W
Flow rate	4.2 l/min
Pressure	3–8 bar adjustable
Temperature stability	± 1 °C
Tap water consumption	0.6 l/min/kW
Tap water pressure	0.5–5 bar
Power supply	230 V, 1.2 A 50 Hz
Dimensions	75 × 38 × 54 (L × W × H) cm
Weight	56 Kg

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