

Warrior AC

(Q210000000)

Top performance blood and IV fluid warmer for operating rooms and intensive care units

April 2024 | Version 7



Key Benefits:

- **Simple to Operate:** Fail-safe assembly; one-button operation that minimizes the likelihood of human errors and enables consistent care in mass casualty event
- Immediate Warming: Warm fluids in less than 11 seconds
- At Any Input Temperature: Even at 4°C / 39°F fluid input temperature
- **Even At High Flow Rates:** Up to 290ml/min (AC) for the full warming range (4°C-38°C / 39.2°F-100.4°F)
- Superb Handling of Push-Pull / Bolus / Intermittent Resuscitation Method: Fast reaction to flow changes and unmatched intermittent flows handling (e.g. hand pump, syringe, etc.)
- **Communicative:** Built-in display
- Upgradeable to Full Portability: Smooth upgrade path to portability
- No Calibration: No need for periodic calibration
- Practically Zero Maintenance: 5 years between service cycles
- Patent-Protected Smart Warming Technology:

Microprocessor-controlled smart warming technology that measures fluids temperature 100s of times a second and automatically adjusts warming to maintain 38°C/100.4°F output. Dry warming technology



- Safe Technology: Gradual warming; real-time temperature sensing with auto-adjustments and audio and visual indications; aluminum free (heat exchanger using medical grade stainless steel)
- **Field Proven Technology:** In clinical use since early 2014 with hundreds of end users and thousands of field utilizations
- Affordable Consumables: Cost effective consumable design
- Multipurpose Consumables: The same consumable fits all protocols
- Unique Continuum of Emergency Care Proposition: Same consumable can be used across the entire continuum of emergency care, simplifying patient handoff between emergency settings and reducing costs



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Performance:	
Set-Point Temperature	38°C (±2°C) / 100.4°F (±3.6°F)
Warming Time	Up to 11 seconds
Minimum Delivery Rate	KVO or 2 ml/min
Maximum Delivery Rate at 4°C/39.2°F Input [1] [2]	Up to 290 ml/min
Maximum Delivery Rate at 20°C/68°F Input ^{[1] [2]}	Up to 500 ml/min
Physical Characteristics:	
Dimension (H x W x L)	30 x 19 x 18 cm 11.81" x 7.48" x 7.08"
Weight	~3,700 g / 8 lb
Electrical Characteristics:	
Electrical Specifications	Input: 110VAC 7A RMS 240VAC 3.5A RMS 50-60 Hz
Target Regulatory Envelope:	
Certifications	CE, FDA & Health Canada
IEC	 IEC 60601-1 IEC 60601-1-2:2014 (EMC standard 4th edition)
Environmental Specifications:	
Storage Conditions	-20°C to 60°C (-4°F to 140°F) & 93% RH
Operating Conditions	5°C (41°F) & 15% RH to 40°C (104°F) and 93% RH
Atmospheric Pressure / Altitude	700 to 1,060 hPa / -400 to 3,200 meter (-1,312 to 10,499 ft)
Ingress Protection (IP)	IP22

Core Components:

Base (QPORT1100)

Hosts the control module and user indications (audio, visual). Connects with the battery and the Compact Disposable Unit

Power Supply Module (QACPLUS1000) Medical grade power supply module in a dedicated case

Disposable Unit:

Compact Disposable Unit (QPORT0500) Compact sterile Disposable

Accessories:

Extension Cable (QIF-CBL00019) To extend the connection between the base unit and the disposable unit

CDU Secure Basket (QIF-MCH00041) To secure the disposable unit to the bed

Note: the information provided in the Instructions For Use (IFU) shall govern in case of conflict . This document is adjusted to CE approvals; for exact specifications of the USA-cleared version, please refer to the relevant IFU or contact your QinFlow representative.

= degree in Celsius = degree in Fahrenheit Standard = Inch AC = Alternate Current

BU = Base Unit CDU = Compact Disposable Unit

= centimeter DU = Disposable Unit EN = European Norms = European Norms FDA = Federal Drug Administration Ft = Feet g = gram

= hecto Pascal (100 Pascal) HxWxL = Height x Width x Length IEC = International Electrotechnical Commission = Instructions for Use ΙP

Ingress Protection ratingIntravenous

= kilogram KVO = Keep Vein Open = Libra (Pound) MIL-STD = Military Standard ml/min = milliliter per minute RH = Relative Humidity

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^[1] Using standard IV kit and a 14G catheter. Blood products' flow rate may differ due to their viscosity.

^[2] This document is based on EU-approved spec. For the USA-cleared version, please refer to the IFU or to your QinFlow representative.