



Warrior lite

(Q1301S0000)

High performance yet compact and light blood and IV fluid warmer for space and weight constrained rescue gears, first responders, and critical care transports^[1]

November 2018 | Version 1



Key Benefits:

- **Simple to Operate:** One button operation; simple setup
- **Lite & Compact:** 700g / 1.5lb; 8.2 x 13.6 x 8.3 cm | 3.23" x 5.35" x 3.27"
- **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:** Over 100ml/min for the full warming range (4°C-38°C / 39.2°F-100.4°F)
- **Highly Efficient Technology:** 1-2 liters of warmed fluids with a single lite battery
- **Highest Regulatory Envelope:** 60601-1-12 and 60601-1-2 4th edition certified; MIL-STD 461G RE102 & RS103 compliant
- **Night Vision Googles Compliant:** Designed to be operated with night-vision goggles
- **No Calibration:** No need for periodic calibration
- **Practically Zero Maintenance:** 5 years between service cycles
- **Patent-Protected:** Patented warming technology & controls
- **Field Proven technology:** In commercial use since early 2014 with hundreds of end users
- **Affordable Consumables:** Cost effective consumable design
- **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 ^[2] [3]	Up to 120 ml/min
Maximum Delivery Rate at 20°C/68°F Input ^[2] [3]	Up to 180 ml/min
Battery Capacity at 4°C/39.2°F Input	1.2 liters
Battery Capacity at 20°C/68°F Input	2 liters
Physical Characteristics	
Dimension (W x L x H)	8.2 x 13.6 x 8.3 cm 3.23" x 5.35" x 3.27"
Weight	700 g / 1.54 lb
Electrical Characteristics:	
Battery Characteristics	Rechargeable, Li-ion, 18VDC (nominal), 3,000mAh
Battery Charging Input Voltage	110-120 or 220-240 VAC; 50-60 [Hz] 12/24V
Target Regulatory Envelope	
Certifications	CE, FDA & Health Canada
IEC	<ul style="list-style-type: none"> • IEC 60601-1 • IEC 60601-1-12 • IEC 60601-1-2 4th edition
Compliance	<ul style="list-style-type: none"> • EN1789 • MIL-STD 461G RE102 & RS103
Environmental Specifications:	
Storage Conditions	-30°C to 70°C (-22°F to 158°F) ^[4]
Operation after Storage	-5°C to 40°C (23°F to 104°F) ^[4] [5]
Atmospheric Pressure /Altitude	549 to 1,060 hPa / -400 to 4,572 meter (-1,312 to 15,000 ft) ^[6]
Ingress Protection (IP)	IP56

Core Components:

Base (QIF03-BUA1000)
Hosts the control module and LED indications. Connects with the battery and the Compact Disposable Unit

lite battery (QIF03-BTA1000)
Rechargeable, Li-ion, 18V (nominal), 3,000mAh

Disposable Unit Options:

Compact Disposable Unit (QPORT0500)
Compact sterile disposable unit for space constrained

Charging Components:

Charger (QIF03-CHR1000)

Adapter (QIF03-CHA1001)

Accessories:

Mounting (QIF03-MUA1000)

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

Carrying bag (QIF03-SBG1000)

[1] General availability: Q1 2019.

[2] Using standard IV kit and a 14G Venflon; blood products' flow rate may differ to their viscosity.

[3] This document is adjusted to CE spec; for exact performance of the USA-cleared version, please refer to the relevant IFU or contact your QinFlow representative.

[4] Under EN1789:2007 +A2:2014.

[5] The benchmark tests were performed after storage at extremely cold temperature of -30°C (-22°F).

[6] In compliance with IEC60601-1-11:2010 section 4.2.2c.

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.

°C = degree in Celsius
°F = degree in Fahrenheit Standard
" = Inch
AC = Alternate Current
BU = Base Unit
CDU = Compact Disposable Unit

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

hPa = hecto Pascal (100 Pascal)
IEC = International Electrotechnical Commission
IFU = Instructions for Use
IP = Ingress Protection rating
IV = Intravenous
KVO = Keep Vein Open

lb = Libra (Pound)
MIL-STD = Military Standard
ml/min = milliliter per minute
RH = Relative Humidity
W x L x H = Width x Length x Height

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