

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



December 2021 | Version 7



Key Benefits:

- **Simple to Operate:** Failsafe assembly, simple setup
- **Lite & Compact:** 0.8 kg / 1.76 lb | 8.4 x 8.8 x 11.5 cm / 3.3" x 3.46" x 4.52"
- **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 170ml/min for the full warming range (4°C-38°C / 39.2°F-100.4°F)
- **Highly Efficient Technology:** 1-2.5 liters of warmed fluids with a single lite battery
- **2 Battery-Size Options:** lite battery and Extra Power battery options for optional operational fit (the Extra Power battery warms up to 3 liters of near-freeze fluids at max delivery rate of 180 ml/min)
- **Highest Regulatory Envelope:** IEC 60601-1-12 and IEC 60601-1-2:2014 (EMC standard 4th edition) certified; MIL-STD 461G RE102 & RS103 compliant
- **Defibrillator-Proof:** Disposable Unit is safe to be used jointly with a defibrillator
- **Night Vision Goggles 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 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
- **Safe Technology:** Gradual warming; real-time temperature sensing with auto-adjustments and audio and visual notifications; 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

For more information: info@qinflow.com

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Warrior lite (lite battery)

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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]}	170 ml/min
Maximum Delivery Rate at 20°C/68°F Input ^{[1] [2]}	250 ml/min
Battery Capacity at 4°C/39.2°F Input	Up to 1.3 liters
Battery Capacity at 20°C/68°F Input	Up to 2.5 liters
Physical Characteristics:	
Dimension (H x W x L)	8.4 x 8.8 x 115 cm 3.3" x 3.46" x 4.52"
Weight	0.8 kg / 1.76 lb
Electrical Characteristics:	
Battery Characteristics	Rechargeable, Li-ion, 18.0V, 3.0Ah, 54.0Wh
Battery Charging Input Voltage	100–240 VAC 50–60 Hz Max 1.0 A
Target Regulatory Envelope:	
Certifications	CE, FDA & Health Canada
IEC	<ul style="list-style-type: none"> • IEC 60601-1 • IEC 60601-1-2:2014 (EMC standard 4th edition) • IEC 60601-1-12
Compliance	<ul style="list-style-type: none"> • MIL-STD 461G RE102 & RS103
Environmental Specifications:	
Storage Conditions	-20°C to 70°C (-4°F to 158°F); 93% RH
Operating Conditions	-5°C to 50°C (23°F to 122°F); RH 90%
Transient operating conditions:	-20°C to 50°C (-4°F to 122°F) & 90% RH
Atmospheric Pressure /Altitude	549 to 1,060 hPa / -400 to 4,572 meter (-1,312 to 15,000 ft)
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, 18.0V, 3.0Ah, 54.0Wh
Note: Extra Power battery available as well (3 liters of near-freeze fluids at up to 180 ml/min)

Disposable Unit:

Compact Disposable Unit (QPORT0500)

Compact sterile disposable unit

Charging Components:

Charger (QIF03-CHR1000 and MASCOT2240Li)

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)

12-24V Charger (MASCOT-2544Li5C-LT)

[1] Using standard IV kit and a 14G catheter. Blood products' flow rate may differ due to their viscosity. Output temperature and volume may differ based on ambient temperature, flow rate and battery condition.
[2] This document is based on EU-approved spec. For the USA-cleared version, once available, please refer to your QinFlow representative.

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)
HxWxL = Height x Width x Length
IEC = International Electrotechnical Commission
IFU = Instructions for Use
IP = Ingress Protection rating
IV = Intravenous

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

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