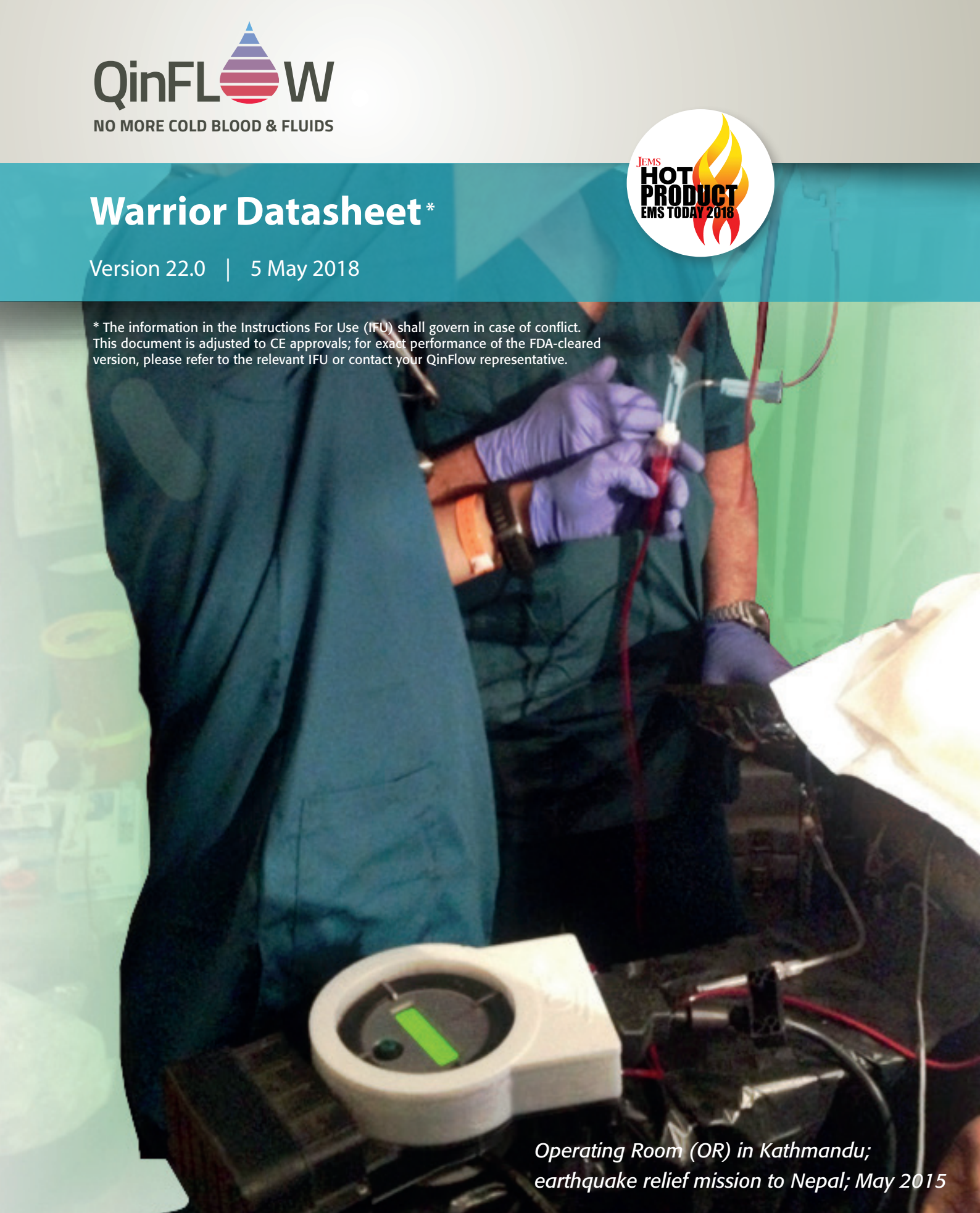




# Warrior Datasheet\*

Version 22.0 | 5 May 2018

\* The information in the Instructions For Use (IFU) shall govern in case of conflict. This document is adjusted to CE approvals; for exact performance of the FDA-cleared version, please refer to the relevant IFU or contact your QinFlow representative.



*Operating Room (OR) in Kathmandu;  
earthquake relief mission to Nepal; May 2015*

**QinFlow**

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**Table 1: Physical Characteristics**

<b>System Components</b>	<ul style="list-style-type: none"> <li>• <u>Base</u>: Base Unit (BU)</li> <li>• <u>Disposable Units (DUs)</u>: Standard DU   Compact DU</li> <li>• <u>Portable Energy Sources</u> <sup>[1]</sup>: Enhanced Battery   Lite battery <sup>[2]</sup>   Charger &amp; Adapter</li> <li>• <u>AC Energy Source</u> (optional): AC Power Supply Module</li> </ul>
<b>Weights</b>	<ul style="list-style-type: none"> <li>• <u>Base Unit</u>: 700 grams (1.54 lb)</li> <li>• <u>Enhanced Battery</u>: 880 grams (1.94 lb)</li> <li>• <u>Lite Battery</u>: 460 grams (1.0 lb)</li> <li>• <u>Standard DU</u> (in sterile bag): 140 grams (0.3 lb)</li> <li>• <u>Compact DU</u> (in sterile bag): 120 grams (0.26 lb)</li> <li>• <u>AC Power Supply Module</u>: approximately 2,900 grams (6.4 lb)</li> </ul>
<b>Dimensions (HxWxL)</b>	<ul style="list-style-type: none"> <li>• <u>BU with Enhanced Battery</u>: 235×160×75 mm (9.25×6.5×2.9 in)</li> <li>• <u>BU with Lite Battery</u>: 205×160×75 mm (8.0×6.5×2.9 in)</li> <li>• <u>Standard DU</u>: 210×160×45 mm (8.3×6.5×1.8 in)</li> <li>• <u>Compact DU</u>: 72x69x118 mm (2.8x2.7x4.6 in)</li> <li>• <u>AC Power Supply Module</u>: approximately 300×190×180 mm (11.8×7.5×7.1 in)</li> </ul>
<b>Battery Characteristics</b>	<ul style="list-style-type: none"> <li>• <u>Enhanced Battery</u>: Li-ion, 22.2VDC (nominal), 4,600mAh</li> <li>• <u>Lite Battery</u>: Li-ion, 18VDC (nominal), 3,000mAh</li> </ul>
<b>Battery Charger Input Voltage</b>	• 110-120 or 220-240 VAC; 50-60 [Hz]   12/24V
<b>Electrical Specifications</b>	<ul style="list-style-type: none"> <li>• <u>Input</u>: 110VAC 7A RMS   240VAC 3.5A RMS   50-60 Hz</li> <li>• <u>Output</u>: 24 VDC; 26.5A</li> </ul>

**Table 2: Performance Measures**

<b>Battery Warming Capacity</b>	Up to 3 liters at 4°C (39.2°F) fluid input temperature and up to 5 liters at 20°C (68°F) fluid input temperature using single Enhanced Battery
<b>Flow Rate</b>	KVO to 200/290 ml/min (Enhanced Battery/AC) for the full warming range (4-38°C/39.2-100.4°F) and KVO to 290/500 ml/min (Enhanced Battery/AC) for the 20-38°C (68-100.4°F) warming range <sup>[3]</sup>
<b>Warming Speed</b>	Up to 11 seconds
<b>Output Set-Point Temp.</b>	38°C (100.40F)
<b>Temperature Tolerance</b>	± 2°C (±3.6F) <sup>[4]</sup>

**Table 3: Certifications**

<b>CE</b>	Certificate no. 7205GB410161222
<b>IEC</b>	IEC 60601-1; IEC60601-1-2: 2007; IEC 62133
<b>FDA</b>	510(k) K171215 and K180154 (AC) <sup>[5]</sup>
<b>Canada</b>	License no. 95781
<b>Other</b>	EN 1789 compliant

**Table 4: Environmental Specifications**

<b>Storage Conditions</b>	-30°C to 70°C (-22°F to 158°F) <sup>[6]</sup>
<b>Operation after Storage</b>	-5°C to 40°C (23°F to 104°F) <sup>[6] [7]</sup>
<b>Atmospheric Pressure/Altitude</b>	549 to 1,060 hPa / -400 to 4,572 meter (-1,312 to 15,000 ft) <sup>[8]</sup>

[1] Note: battery part number QPORT1130 is in end-of-life stage.

[2] In development; planned availability: 2H 2018.

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

[4] Attributable to various change-in-flow scenarios.

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

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

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

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