



Envólio[®]
Precision Refrigeration for Healthcare

A Portable Medical-grade Refrigeration System



Envólio Pro is a portable active cooling (battery-powered) device that will provide a platform for delivery of vaccines and all other biologicals like blood, serums, viral culture which require to be kept strictly between 2°C and 8°C for 12+ hours in the field. The product has been designed in accordance with WHO PQS E003 specifications and conforms to IEC 60601 standards.



LED and
Buzzer Alerts



Temperature
Indication



Active Cooling



Continuous Operation
when plugged in



Portable and
Lightweight



IP56 Rated - Dust &
Water Resistance



Easy and fast
charging



Adaptable to DRE
(Solar) applications

*Blackfrog Technologies is an ISO 13485:2016 certified
manufacturer of Medical Devices.*



BLACKFROG[®]
TECHNOLOGIES



Rapid Temperature Stabilization to minimize freeze-thaw cycles



100% Accountable & Assured Cold-chain



IoT based Device Monitoring

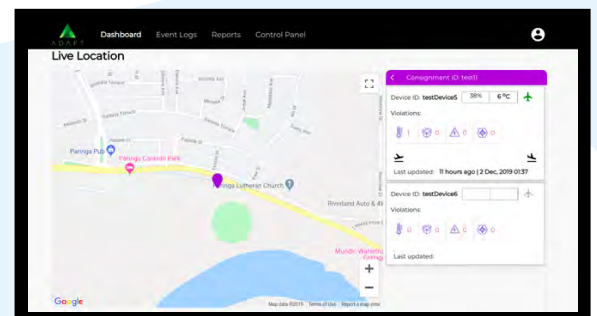
Adjustable internal chamber Temperature Range	-10°C to 20°C
Accuracy of maintained Temperature	±0.5°C
Operating Time*	12+ Hours
Operating ambient Temperature	-20°C to 65°C
Operating Humidity	Up to 100%
Initial cool down time**	< 20 minutes
Dimensions (L x B x H)	30cm x 20cm x 41cm
Weight	6.7 Kg
Payload Capacity	1.8 L
Battery	311Wh Li-ion
Charging Time	4 Hours
IP Rating	IP56
Device Life	10 Years

*12h battery life at test condition of 43°C ambient temperature and 5°C chamber temperature

**At an ambient temperature of 35°C



Stainless Steel internal chamber for easy sterilization after use



IoT based online dashboard for remote monitoring of parameters