



# Emvólio®

## Precision Refrigeration for Healthcare.



Emvólio 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



LCD Display for temperature indication



Active Cooling



Continuous Operation when plugged in



Portable and Lightweight



IP55 Rated - Dust & Water Resistance



Easy and fast charging



Adaptable to DRE (Solar) applications

**Blackfrog technologies is an ISO 13485:2016,  
ISO 9001:2015 certified manufacturer of Medical Devices**



**BLACKFROG®  
TECHNOLOGIES**



**Rapid Temperature Stabilization to minimize freeze-thaw cycles**



**100% Accountable & Assured Cold-chain**



**IoT based Device Monitoring**

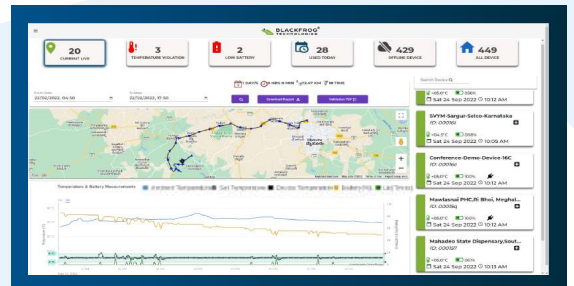
### Device Specifications (Envólio Plus)

Adjustable internal chamber Temperature Range	-10°C to 25°C
Accuracy of maintained Temperature	±0.5°C
Operating Time <sup>[1]</sup>	15-20 Hours
Operating ambient Temperature <sup>[2]</sup>	-20°C to 65°C
Operating Humidity	Up to 100%
Initial cool down time <sup>[3]</sup>	< 20 minutes
Dimensions (L x B x H)	30cm x 20cm x 41cm
Weight	Approx. 6 kg
Payload Capacity <sup>[4]</sup>	1.55 l
Battery	390 Wh
Charging Time	5 Hours
IP Rating	IP55
Device Life	10 Years

Product available in 3 variants with a backpack or rigid carrying handle



**Stainless Steel 304 chamber for easy cleaning after use**



**IoT based online dashboard for remote monitoring and data-logging**

[1] 12h battery life at test condition of 43°C ambient temperature and 5°C chamber set temperature  
 [2] Minimum temperature which can be attained at 65°C ambient temperature is 25°C  
 [3] At an ambient temperature of 35°C  
 [4] Total Chamber capacity is 1.8L

