

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2023/0231265 A1 Khammassi et al.

Jul. 20, 2023 (43) **Pub. Date:**

(54) BATTERY AND SAFETY ARRANGEMENT

(71) Applicant: EnerSys Delaware Inc., Reading, PA (US)

(72)Inventors: Montassar Khammassi, Arras (FR); Rhodri Evans, Newport (GB)

Appl. No.: 18/067,206 (21)

(22)Filed: Dec. 16, 2022

(30)Foreign Application Priority Data

Dec. 17, 2021 (EP) 21306841.4

Publication Classification

(51)	Int. Cl.	
` /	H01M 50/383	(2006.01)
	H01M 10/0525	(2006.01)
	H01M 50/103	(2006.01)
	H01M 50/342	(2006.01)
	H01M 50/209	(2006.01)
	H01M 50/107	(2006.01)
	H01M 50/105	(2006.01)
	H01M 50/213	(2006.01)

H01M 50/211 (2006.01)

(52) U.S. Cl. CPC H01M 50/383 (2021.01); H01M 10/0525 (2013.01); H01M 50/103 (2021.01); H01M 50/105 (2021.01); H01M 50/107 (2021.01); H01M 50/209 (2021.01); H01M 50/211 (2021.01); H01M 50/213 (2021.01); H01M 50/3425 (2021.01)

(57)**ABSTRACT**

The present invention concerns a fire safety arrangement for a battery. More particularly, but not exclusively, this invention concerns a fire safety arrangement for a metal ion battery, for example a lithium ion battery. A metal ion battery cell comprises a plurality of electrodes and an electrolyte encased within a housing. The housing comprises a safety valve or vent configured to allow gas build up within the housing to vent outside the housing. A fabric band surrounds the housing, such that the fabric band covers the safety valve or vent. This may allow gas to pass through the fabric band, but contain sparks generated by the battery cell within the fabric band.

