We claim:

1. A cover member (100) for a battery module (1000), the cover member (100) comprising:

an elongated body (102) defining a first major surface (104a) and a second major surface (104b), wherein the second major surface (104b) is defined with a plurality of grooves (110); and

a plurality of dimples (106) defined along at least one of the first major surface (104a) and the second major surface (104b), wherein, each dimple (106) of the plurality of dimples (106) is positioned at an intersection of at least two grooves (110) of the plurality of grooves (110), and wherein at least one dimple (106) of the plurality of dimples (106) melts and form an aperture (108) when at least one battery cell of the battery module (1000) undergoes a thermal runaway, to fluidly connect the first major surface (104a) with the plurality of grooves (110).

2. The cover member (100) as claimed in claim 1, wherein each groove of the plurality of grooves (110) is separated by a ridge (116) defined on the second major surface (104b).

~~3. The cover member (100) as claimed in claim 1, wherein the plurality of grooves (110) is enclosable by a casing element (112) abutting the second major surface (104b) of the elongated body (102), upon connecting the casing element (112) with the cover member (100).~~

~~4. The cover member (100) as claimed in claim 3, wherein thermal conductivity of the elongated body (102) is lower than the casing element (112).~~

~~5.~~3. The cover member (100) as claimed in claim 1, wherein the elongated body (102) is made of a self-extinguishing polymer material.

~~6.~~4. The cover member (100) as claimed in claim 1, wherein each of the plurality of dimples (106) is defined in a portion of the elongated body (102), between the first major surface (104a) and the second major surface (104b).

~~7.~~5. The cover member (100) as claimed in claim 1, wherein depth of each of the plurality of dimples (106) is at least 15% to ~~about~~ 55% of a thickness of the elongated body (102).

~~8.~~6. A busbar (300) for a battery module (1000), comprising:

a base member (302) defining a plurality of contact portions, each of the plurality of contact portions comprising:

a contact pad (304);

a connecting arm (306) extending between the contact pad (304) and the base member (302) along a partial circumference of the contact pad (304); and

a metal substrate (316), deposited along a portion of the connecting arm (306), wherein the connecting arm (306) and the metal substrate (316) are configured to fuse, during thermal runaway in the battery module (1000);

wherein, the connecting arm (306) is made of copper, and the metal substrate (316) is made of tin.

~~9.~~7. The busbar (300) as claimed in claim ~~8~~6, wherein the connecting arm (306) is configured to fuse and disable connection between the contact pad (304) and the base member (302).

~~10.~~8. The busbar (300) as claimed in claim ~~8~~6, wherein the connecting arm (306) is defined with an extended width at contacting regions relative to width of the base member (302), to connect with the base member (302) and the contact pad (304).

~~11.~~9. The busbar (300) as claimed in claim ~~8~~10, wherein the connecting arm (306) is defined with a narrow width along the partial circumference of the contact pad (304), relative to the extended width of the connecting arm (306) at the contacting regions.

~~12.~~10. The busbar (300) as claimed in claim ~~8~~6, wherein the contact pad (304) is connected to the base member (302) through the connecting arm (306) such that, a gap is defined along a major circumference of the contact pad (304) and the base member (302).

~~13.~~11. The busbar (300) as claimed in claim ~~6~~8, wherein the plurality of contact portions are oriented such that, the connecting arm (306) of one contact pad (304) is farthest from the connecting arm (306) from an adjacent contact pad (304).

~~14.~~12. The busbar (300) as claimed in claim ~~6~~8, wherein the metal substrate (316) is configured melt and form an alloy with the connecting arm (306), during thermal runaway in the battery module (1000) to increase thermal conductivity of the connecting arm (306) for fusing.

~~15.~~13. The busbar (300) as claimed in claim ~~8~~6, comprises a filler material (318) provided between the connecting arm (306) and the metal substrate (316), wherein the filler material (318) melts and fixes the metal substrate (316) to the connecting arm (306), during thermal runaway in the battery module (1000).

~~16.~~14. The busbar (300) as claimed in claim ~~8~~6, wherein at least a portion of the connecting arm (306) is defined with a plurality of notches (308), wherein the connecting arm (306) is configured to fuse about the at least one notch.

~~17.~~15. A battery module (1000), comprising:

a plurality of battery cells (200);

a busbar (300), including a base member (302) defining a plurality of contact portions, is disposed on the plurality of battery cells (200), wherein each of the plurality of contact portions comprising:

a contact pad (304); and

a connecting arm (306) extending between the contact pad (304) and the base member (302) along a partial circumference of the contact pad (304); and

a metal substrate (316), deposited along a portion of the connecting arm (306), wherein the connecting arm (306) and the metal substrate (316) are configured to fuse, during thermal runaway in the battery module (1000);

an insulator member (118) positioned between the plurality of battery cells (200) and the busbar (300), to prevent direct electrical and thermal contact of the busbar (300) and at least one battery cell of the plurality of battery cells (200) during thermal runaway; and

a cover member (100) positioned above the busbar (300), the cover member (100) comprising:

an elongated body (102) defining a first major surface (104a) and a second major surface (104b), wherein the second major surface (104b) is defined with a plurality of grooves (110); and

a plurality of dimples (106) defined along at least one of the first major surface (104a) and the second major surface (104b), wherein at least one dimple

(106) of the plurality of dimples (106) melts and form an aperture (108) when at least one battery of the battery module (1000) undergoes a thermal runaway, to fluidly connect the first major surface (104a) with the plurality of grooves (110) in the second major surface (104b); and

a casing element (112) seated on the second major surface (104b) of the cover member (100), to cover the plurality of grooves (110).

~~18.~~16. The battery module (1000) as claimed in claim ~~16~~ 15 comprises a battery cell frame (128), configured to accommodate each of the plurality of battery cells (200), wherein the battery cell frame (128) includes a spacer element (114) between each battery cell of the plurality of battery cells (200), to separate each of the at least one battery cell of the plurality of battery cells (200).

~~19.~~17. The battery module (1000) as claimed in claim ~~16~~15, wherein the plurality of grooves (110) and the casing element (112) are configured to route gases surrounding each of the plurality of battery cells (200), when at least one battery cell of the plurality of battery cells (200) undergoes thermal runaway.

~~20.~~18. The battery module (1000) as claimed in claim ~~1616~~15, wherein the number of contact portions corresponds to the number of battery cells (200).

~~21.~~19. The battery module (1000) as claimed in claim ~~16~~15, the insulator member (118) is made of aramid polymer material.