Continental Proposal of Definitions for RESS Safety Requirements

1. Hybridgetriebe mit elektrischer Maschine
2. Leistungselektronik
3. Energiespeichermodule mit Batteriezellen und Steuerelektronik
Continental Proposal of Definitions

2. Main Level (BMW proposal)

RESS - Rechargeable energy storage system

means a system providing rechargeable electric energy based on electro-chemical processes for vehicle propulsion.

The RESS includes cells, modules and/or packs. Furthermore, the necessary ancillary subsystems for physical support, thermal management, electronic control and enclosures are included in the RESS.

(based on RESS discussions)
Continental Proposal of Definitions

3. Modul-Pack Level (BMW proposal)

Pack means an energy storage device that includes cells or modules normally connected with cell electronics, voltage class B circuit and overcurrent shut-off device including electrical interconnections, interfaces for external systems (e.g. cooling, voltage class B, auxiliary voltage class A and communication).

(based on ISO 12405-1, ISO copyright has to be checked)
Continental Proposal of Definitions

4. Cell-Pack Level (BMW proposal)

Module

Means an assembly of electrically connected cells with a mechanical supporting structure. In most cases, a serial electrical connection of cells will be applied. A module could contain further functionalities (or their parts) of the RESS as e.g. parts of the cooling system and/or first level cell electronics, but not the battery control unit. In a RESS, one or more modules could be used.

If the module voltage differs from the RESS voltage, a different effect to the hazard level could be expected. Thus, modules could be used in a limited number of tests described in this regulation as representatives of RESS only.

(based on ISO discussions, ISO copyright has to be checked)
Continental Proposal of Definitions

5. Cell Level (BMW proposal)

Cell

means a single encased electrochemical unit containing one positive and one negative electrode which exhibits a voltage differential across its two terminals.

(based on RESS discussions)