

Water immersion test

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Water immersion test in KMVSS

➤ The date entry into force : Feb. 2009

➤ Purpose

Evaluation of traction battery safety under Vehicle immersed accident

Test	Procedure	Criteria
Immersion	Immerse into 0.6M salty water for 1hr	No Fire & No Explosion

Water immersion test in KMOVSS

- Video clips for Failed water immersion test

This video file is confidential.
So, Korea will show the video at only the venue.

Water immersion test in KMVSS

➤ Failed case

1

Ignition and explosion immediately after immersion



➤ Causes of Defects

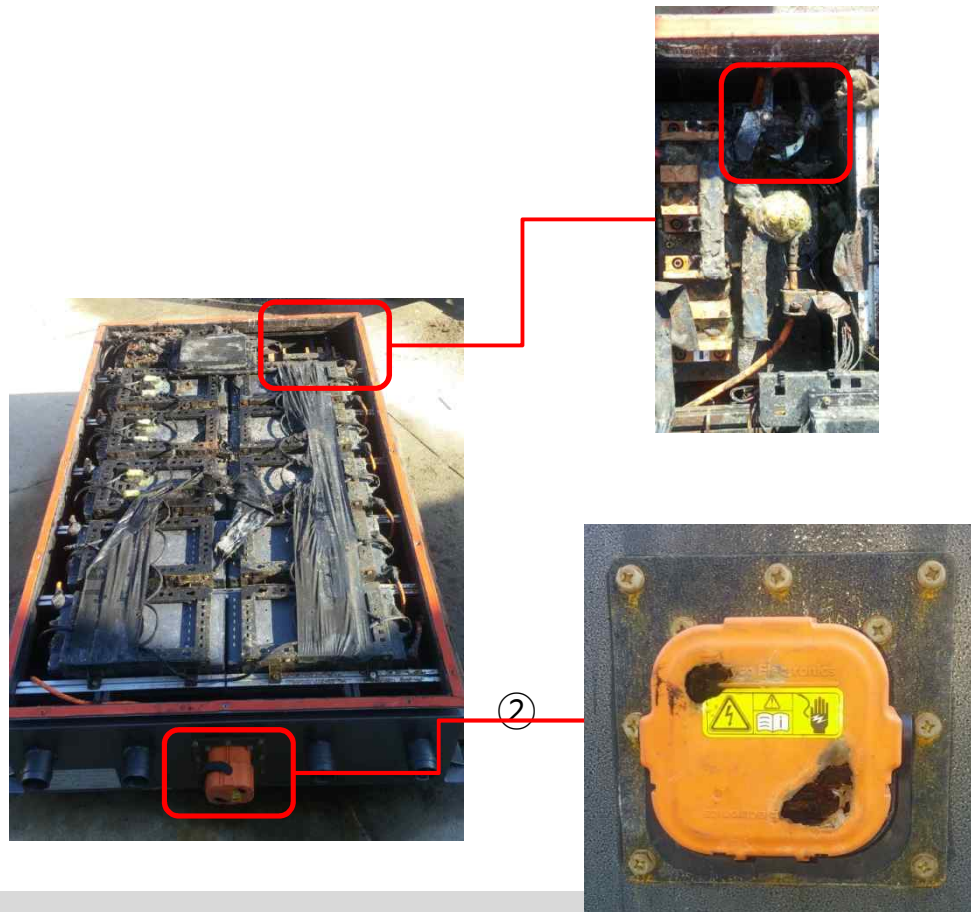
Insufficient for Distance through insulation (DTI) in High voltage battery

Water immersion test in KMVSS

➤ Failed case

2

Arcing occurs at power outlet immediately after immersion (relay open)
Continuous arcing at Safety plug (Disconnected switch)

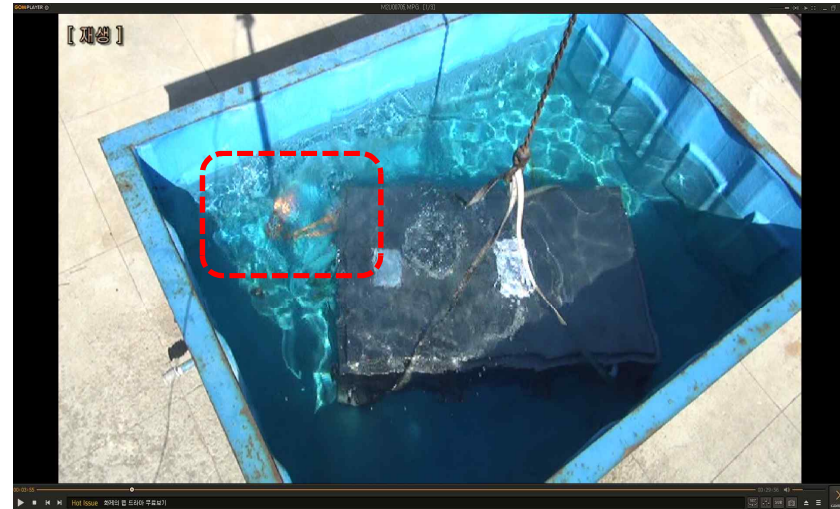
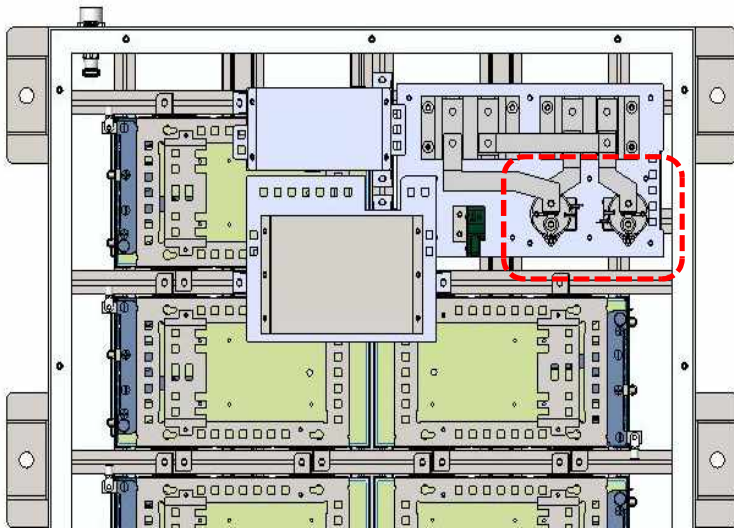


Water immersion test in KMVSS

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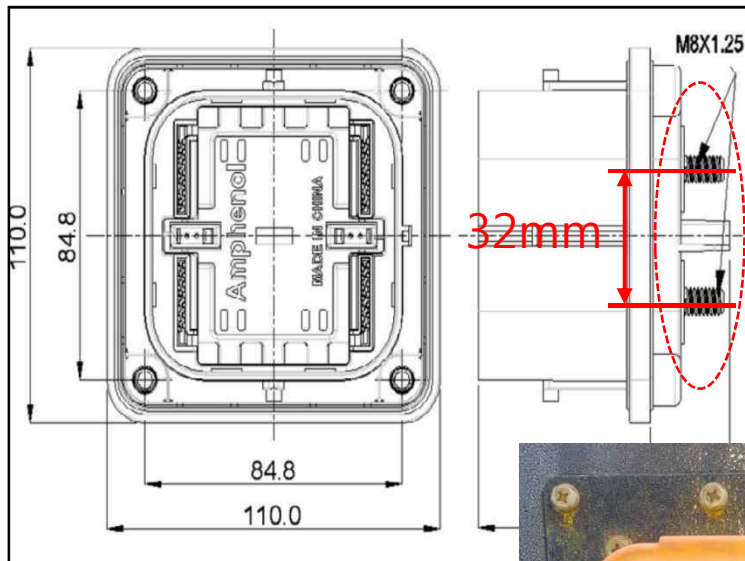


Water immersion test in KMVSS

➤ Failed case

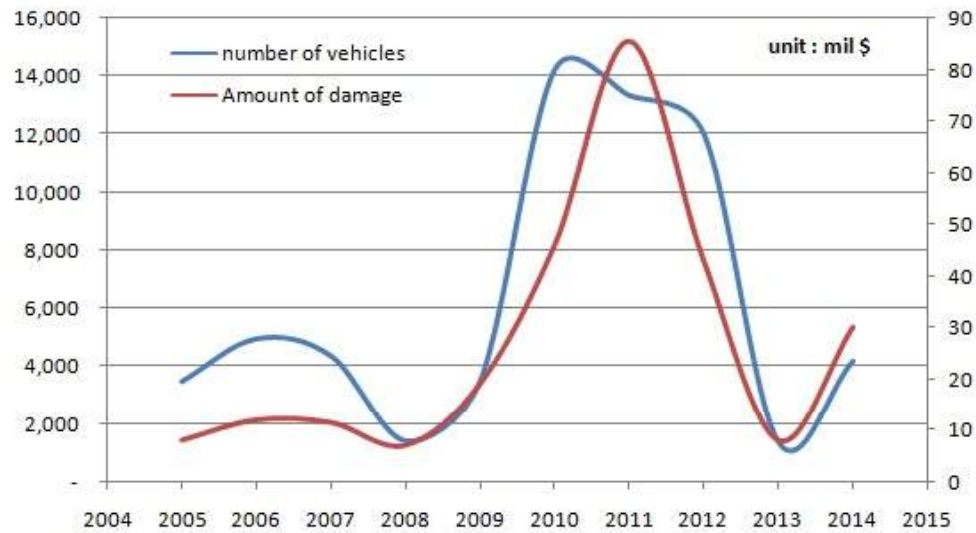
2

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Water immersion test

➤ Number of Vehicle immersed accident in Korea



- Increased accidents caused by localized heavy rains or storms
- Need to consider in the event by immersion during parking

Water immersion test

➤ Recommendation

Minimum safety requirements of traction battery are needed under Vehicle immersed accident.

The causes of Vehicle immersed accident are diverse, so multiple researches are needed.

Thank you for attention!