

SPECIFICATION

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Electrically propelled road vehicles — Dimensions and designation of secondary lithium-ion cells

*Véhicules routiers à propulsion électrique — Dimensions et
désignation d'accumulateurs lithium-ion*

Reference number
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Foreword

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ISO/IEC PAS 16898 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 21, *Electrically propelled road vehicles*.

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Introduction

The vehicle traction battery system as a large and very costly component of an electrically propelled vehicle has a huge influence on the vehicle design. Depending on vehicle dimensions and package constraints, the shape of battery packs and systems has to follow a top-down procedure. The dimensional requirements on lithium-ion cells for automotive application are given by the battery system, which is influenced by the vehicle design. Therefore, this Publicly Available Specification (PAS) was developed in a joint ISO and IEC Working Group consisting of experts from the automotive industry, the automotive suppliers, the battery and the cell industry.

Today there is a huge variety of different cell types and dimensions on the market. When a traction battery system design is finished based on one specific cell, a change to another cell or cell supplier is quite difficult or may not be possible. It is necessary to reduce this variety in order to:

- lower the cell costs through encouraging competition and allowing cell suppliers access to the worldwide market,
- enable an exchange of the cells from different suppliers during and after the battery system development, and
- support the battery system design by specifying basic outer dimensions per known design type of lithium-ion cells for automotive traction battery systems.

By specifying only a certain number of cell dimensions for vehicle propulsion, this PAS aims to reduce the number of different dimensions. It should furthermore ensure that cells of the dimensions as listed in this PAS will be used in the long term by the vehicle manufacturers for their current and future models. Cells of these dimensions need to be available for the vehicle production time, plus the vehicle life time, plus the legally required spare part availability time.

This PAS lists only those battery cells, chosen from the currently existing variety, which will be used for the current and planned vehicle models and which are currently available. This PAS does not exclude the usage of other cell dimensions in vehicle models.

This PAS is not intended to restrict the development of cell technology. Therefore no requirements are specified in this PAS for the cell chemistry, the usage of materials or any electrical characteristics.