ICS 31.060.99, 43.120 SLOVENSKÁ TECHNICKÁ NORMA Február 2019

STN	**Elektrické dvojvrstvové kondenzátory na používanie v hybridných elektrických vozidlách Skúšobné metódy elektrických charakteristík**	**STN EN IEC 62576** 35 8228

Electric double-layer capacitors for use in hybrid electric vehicles - Test methods for electrical characteristics

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/19

Obsahuje: EN IEC 62576:2018, IEC 62576:2018

Oznámením tejto normy sa od 27.03.2021 ruší
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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62576

June 2018

ICS 31.060.99; 43.120

Supersedes EN 62576:2010

English Version

Electric double-layer capacitors for use in hybrid electric vehicles - Test methods for electrical characteristics (IEC 62576:2018)

Condensateurs électriques à double couche pour véhicules électriques hybrides - Méthodes d'essai des caractéristiques électriques
(IEC 62576:2018)

Elektrische Doppelschichtkondensatoren für die Verwendung in Hybridelektrofahrzeugen - Prüfverfahren für die elektrischen Kennwerte
(IEC 62576:2018)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 62576:2018

European foreword

The text of document 69/486/CDV, future edition 2 of IEC 62576, prepared by IEC/TC 69 "Electric road vehicles and electric industrial trucks" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62576:2018.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2018-12-27
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2021-03-27

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61881-3:2012	NOTE	Harmonized as EN 61881-3:2012 (not modified).
IEC 61881-3:2012/A1:2013	NOTE	Harmonized as EN 61881-3:2012/A1:2013 (not modified).
IEC 62391 Series	NOTE	Harmonized as EN 62391 Series.

IEC 62576

Edition 2.0 2018-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

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Condensateurs électriques à double couche pour véhicules électriques hybrides – Méthodes d'essai des caractéristiques électriques

IEC 62576:2018-02(en-fr)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRIC DOUBLE-LAYER CAPACITORS FOR USE IN HYBRID ELECTRIC VEHICLES – TEST METHODS FOR ELECTRICAL CHARACTERISTICS

FOREWORD

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International Standard IEC 62576 has been prepared by IEC technical committee 69: Electric road vehicles and electric industrial trucks.

This second edition cancels and replaces the first edition published in 2009. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) information on applicability of this document has been added in Clause 1;
b) the definitions of some terms in Clause 3 have been improved;
c) the description of test procedures in Clause 4 has been clarified;
d) information on endurance cycling test has been added (Annex E).

The text of this International Standard is based on the following documents:

CDV	Report on voting
69/486/CDV	69/539/RVC

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

The electric double-layer capacitor (capacitor) is used as an energy storage system for vehicles. Capacitor-installed electric vehicles are commercialized with an eye to improving fuel economy by recovering regenerative energy, and by peak power assistance during acceleration, etc. Although standards for capacitors already exists (IEC 62391 series), those for electric vehicles involve patterns of use, usage environment, and values of current that are quite different from those assumed in the existing standards. Standard evaluation and test methods will be useful for both auto manufacturers and capacitor suppliers to speed up the development and lower the costs of such capacitors. With these points in mind, this document aims to provide basic and minimum specifications in terms of the methods for testing electrical characteristics, and to create an environment that supports the expanding market of electric vehicles and large capacity capacitors. Additional practical test items to be standardized should be reconsidered after technology and market stabilization of capacitors for electric vehicles. Regarding endurance, which is important in practical use, just a basic concept is set forth in the informative annexes.

ELECTRIC DOUBLE-LAYER CAPACITORS FOR USE IN HYBRID ELECTRIC VEHICLES – TEST METHODS FOR ELECTRICAL CHARACTERISTICS

1 Scope

This document describes the methods for testing electrical characteristics of electric double-layer capacitor cells (hereinafter referred to as "capacitor") used for peak power assistance in hybrid electric vehicles.

All the tests in this document are type tests.

This document can also be applicable to the capacitor used in idling reduction systems (start and-stop systems) for the vehicles.

This document can also be applicable to the capacitor modules consisting of more than one cell.

NOTE Annex E provides information on endurance cycling test.

2 Normative references

There are no normative references in this document.