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व्यापक परिचालन में मसौदा

प्रलेख प्रेषण सूचना

Ref	Date
टीईडी 27/ टी- 4	23 02 2018

विद्युत एवं हाइब्रिड वाहन विषय समिति, टीईडी 27

क) परिवहन इंजीनियरिंग विभाग परिषद |पंडविप। के सभी सदस्यों को

ख) विद्युत एवं हाइब्रिड वाहन विषय समिति, टीईडी 27, के सभी सदस्यों को

ग) अन्य सभी रुचि रखने वाले निकाय

महोदय/ महोदया,

निम्नलिखित प्रलेख संलग्न हैं:

प्रलेख संख्या	विषय
TED 27 (12443) W	विद्युत नोदित सडक वाहन — लीथियम-ऑयन ट्रैक्शन बैटरी पैक एवं सिस्टम की परीक्षण विशिष्टि — भाग 3 सुरक्षा कार्य निष्पादन अपेक्षाएं (ISO 12405-3:2014 का अभिन्न अभिग्रहण)

कृप्या उपरोक्त मानक मसौदे का अवलोकन कर अपनी सम्मतियां यह बताते हुए भेजें, कि यदि अंततः यह मानक राष्ट्रीय मानक के रूप में स्वीकृत हो जाए, तो इस पर अमल करने में आपके व्यवसाय अथवा कारोबार में क्या कठिनाइयां आ सकती हैं ।

सम्मति की अन्तिम तिथि : 26 03 2018

सम्मति यदि कोई हो तो नीचे दिए गए प्रारूप में लिख कर, उपरिलिखित पते पर अधोहस्ताक्षरी को भेजें ।

यदि कोई सम्मति प्राप्त नहीं होती है अथवा सम्मति में केवल भाषा संबधी त्रुटि हुई तो उपरोक्त प्रलेख को यथावत अंतिम रूप दिया जायेगा । यदि कोई सम्मति तकनीकी प्रकृति की हुई तो विषय समिति के अध्यक्ष के परामर्श से अथवा उनकी इच्छा पर आगे की कार्यवाही के लिए विषय समिति को भेजे जाने के बाद प्रलेख को अंतिम रूप दे दिया जाएगा ।

यह प्रलेख भारतीय मानक ब्यूरो की वैबसाइट www@bis.org.in पर भी उपलब्ध है ।

धन्यवाद

भवदीय

(आर आर सिंह)

वैज्ञानिक ई एवं प्रमुख
परिवहन इंजिनियरिंग विभाग

संलग्न: उपरिलिखित

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DRAFT IN WIDE CIRCULATION

DOCUMENT DESPATCH ADVICE

Ref	Date
TED 27/ T-4	23 02 2018

Electric and Hybrid Vehicles Sectional Committee, TED 27

- 1) All Members of Transport Engineering Division Council, TEDC
- 2) All Members of Electric and Hybrid Vehicles Sectional Committee, TED 27
- 3) All Others Interested.

Dear Sir/ Madam,

Please find enclosed the following draft standard:

Document No.	Title
TED 27 (12443) W	Electricity propelled road vehicles — Test specification for lithium-ion traction battery packs and systems — Part 3: Safety performance requirements (Identical adoption of ISO 12405-3:2014)

Kindly examine this draft standard and forward your views stating any difficulty which you are likely to experience in your business or profession, if this is finally adopted as National Standard.

Last date for comments : **26 03 2018**

Comments, if any, may please be made in the format given below and mailed to the undersigned at the above address.

In case no comments are received or comments received are of editorial nature, you will kindly permit us to presume your approval for the above document as finalized. However, in case of comments of technical in nature are received then it may be finalized either in consultation with the Chairman, Sectional Committee or referred to the sectional committee for further necessary action if so desired by the Chairman, Sectional Committee.

The document is also hosted on BIS website www.bis.org.in

Thanking you,

Yours faithfully,

(R R Singh)

Scientist 'E' & Head

Transport Engineering Department

Encl: As above

For Comments only

Draft Indian Standard

Electrically propelled road vehicles — Test specification for lithium-ion traction battery packs and systems — Part 3: Safety performance requirements

ICS 43.120

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**Last date for receipt
of comments is 26 03 2018**

Electric and Hybrid Vehicles Sectional Committee, TED 27

NATIONAL FOREWORD

This draft Indian Standard (Part 1) which is identical with ISO 12405-3:2014 ‘Electrically propelled road vehicles — Test specification for lithium-ion traction battery packs and systems — Part 3: Safety performance requirements’ issued by the International Organization for Standardization (ISO) shall be adopted by the Bureau of Indian Standards on the recommendation of the Electric and Hybrid Vehicles Sectional Committee and approval of the Transport Engineering Division Council.

This standard has been brought out in three parts. Other parts in this series are:

- Part 1 High-power applications
- Part 2 High-energy applications

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appear to the following International Standard for which Indian Standard also exists. The corresponding Indian Standard which is to be substituted in its place is listed below along with its degree of equivalence for the edition indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 12405-1 Electrically propelled road vehicles — Test specification for lithium-ion	TED 27 (12441)/ ISO 12405-1 Electrically propelled road vehicles — Test specification for lithium-ion	Identical

traction battery packs and systems — Part 1: High-power applications	traction battery packs and systems — Part 1: High-power applications (<i>under preparation</i>)
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ISO 12405-2 Electrically propelled road vehicles — Test specification for lithium-ion traction battery packs and systems — Part 2: High-energy applications	TED 27 (12442)/ ISO 12405-2 Electrically propelled road vehicles — Test specification for lithium-ion traction battery packs and systems — Part 2: High-energy applications (<i>under preparation</i>)	Identical
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The technical committee has reviewed the provisions of the following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard:

<i>International/ Other Standard</i>	<i>Title</i>
ISO 6469-1	Electrically propelled road vehicles — Safety specification — Part 1: On-board rechargeable energy storage system, (RESS)
ISO 6469-3	Electrically propelled road vehicles — Safety specification — Part 3: Protection of persons against electric shock
ISO/ TR 8713	Electrically propelled road vehicles — Vocabulary
ISO 20653	Road vehicles — degrees of protection (IP code) — Protection of electrical equipment against foreign objects, water and access

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. BIS shall not be held responsible for identifying any or all such patent rights.

Annex A and B are for information only.

In reporting the result of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 1960 ‘Rules for rounding off numerical values (*revised*)’.

Introduction

Lithium-ion battery systems are efficient rechargeable energy storage systems for electrically propelled road vehicles. The requirements for lithium-ion battery systems to be used as power source for the propulsion of electric road vehicles are significantly different to those batteries used for consumer electronics or for stationary applications.

Lithium-ion batteries can store electricity at relatively high-energy density compared to other battery chemistries currently available. Under current state of art, most lithium-ion batteries use organic

electrolytes which are classified as Class 3 “flammable liquid” under the “UN Recommendations on the Transport of Dangerous Goods — Model Regulations”. Therefore, mitigating potential hazards associated with fire or explosion of lithium-ion batteries is considered an important issue.

This part of ISO 12405 provides specific test procedures and related requirements to ensure an appropriate and acceptable level of safety of lithium-ion battery systems specifically developed for propulsion of road vehicles.

Scope

This part of ISO 12405 specifies test procedures and provides acceptable safety requirements for voltage class B lithium-ion battery packs and systems, to be used as traction batteries in electrically propelled road vehicles. Traction battery packs and systems used for two-wheel or three-wheel vehicles are not covered by this part of ISO 12405. This part of ISO 12405 is related to the testing of safety performance of battery packs and systems for their intended use in a vehicle. This part of ISO 12405 is not intended to be applied for the evaluation of the safety of battery packs and systems during transport, storage, vehicle production, repair, and maintenance services.

‘FOR COMPLETE TEXT OF THE DOCUMENT KINDLY REFER ISO 12405-3:2014 or CONTACT:

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