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**Methods of measurement of the magnetic  
properties of electrical steel strip and  
sheet by means of a single sheet tester**

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In the event of any doubts arising as to the contents,  
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## Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by The Japan Electrical Manufacturers' Association (JEMA)/ Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14. Consequently **JIS C 2556:1996** is replaced with this Standard.

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# Methods of measurement of the magnetic properties of electrical steel strip and sheet by means of a single sheet tester

## Introduction

This Japanese Industrial Standard has been prepared based on the second edition of IEC 60404-3 published in 1992, and Amendment 1 (2002) and Amendment 2 (2009) thereof, with some modifications of the technical contents made to reflect the technology widely applied in Japan.

The portions with continuous sidelines or dotted underlines are the matters in which the contents of the corresponding International Standards have been modified. A list of modifications with the explanations is given in Annex JD.

## 1 Scope

This Standard specifies the general principles and the technical details of the measurement of the magnetic properties of electrical steel sheets and strips by means of a single sheet tester.

This Standard is applicable at power frequencies to

### a) grain oriented electrical steel sheet and strip :

- 1) for the measurement of peak values of magnetic flux density  $\hat{J}$  between 1.0 T and 1.8 T of :
  - specific total loss  $P_s$ ;
  - specific apparent power  $S_s$ ;
  - r.m.s. value of the magnetic field strength  $\tilde{H}$  ;
- 2) for the measurement up to peak values of magnetic field strength  $\hat{H}$  of 1 000 A/m of :
  - peak value of the magnetic flux density  $\hat{J}$  ;
  - peak value of the magnetic field strength  $\hat{H}$  ;

### b) non-oriented electrical steel sheet and strip :

- 1) for the measurement peak values of magnetic flux density  $\hat{J}$  between 0.8 T and 1.5 T of :
  - specific total loss  $P_s$ ;
  - specific apparent power  $S_s$ ;
  - r.m.s. value of the magnetic field strength  $\tilde{H}$  ;
- 2) for the measurement up to peak values  $\hat{H}$  of magnetic field strength of 10 000 A/m of :