JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS C 2556 : 2015

(JEMA/JSA)

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

ICS 17.220.20 ; 29.030

Reference number : JIS C 2556 : 2015 (E)

Date of Establishment: 1996-10-20

Date of Revision: 2015-03-20

Date of Public Notice in Official Gazette: 2015-03-20

Investigated by: Japanese Industrial Standards Committee

Standards Board for IEC area

Technical Committee on Electricity

JIS C 2556 : 2015, First English edition published in 2016-04

Translated and published by: Japanese Standards Association
Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

Printed in Japan KK/HN

Contents

Page

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.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

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 :