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STANDARD

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JIS C 4210 : 2001
(JEMA)

**Low-voltage three-phase
squirrel-cage induction motors
for general purpose**

ICS 29.160.30

Descriptors : three-phase motors, squirrel-cage motors

Reference number : JIS C 4210 : 2001 (E)

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) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law. Consequently **JIS C 4210 : 1983** is replaced with this Standard.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

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

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Low-voltage three-phase squirrel-cage induction motors for general purpose

Introduction This Japanese Industrial Standard has been prepared based on **IEC 60034-1 : 1996** *Rotating electrical machines—Part 1 : Rating and performance*, **IEC 60034-2 : 1972** *Rotating electrical machines—Part 2 : Methods for determining losses and efficiency of rotating electrical machinery from tests*, **IEC 60034-9 : 1997** *Rotating electrical machines—Part 9 : Noise limits*, **IEC 60034-12 : 1972** *Rotating electrical machines—Part 12 : Starting performance of single-speed three-phase cage induction motors for voltage up to and including 660 V*, **IEC 60072-1 : 1991** *Dimensions and output series for rotating electrical machines—Part 1 : Frame numbers 56 to 400 and flange numbers 55 to 1080*. However, in this Standard, contents of specifications for products out of the scope of this Standard are deleted and items and contents not specified in the corresponding International Standards are added.

In this Standard, the portions shown by continuous sidelines or dotted underlines mean the matters not stated in or different from those in the corresponding International Standards.

1 Scope This Standard specifies low-voltage three-phase squirrel-cage induction motors for general purpose of continuous rating at a frequency 50 Hz or 60 Hz exclusively or 50 Hz/60 Hz in common, at a voltage not exceeding 600 V with a protection system IP2X (protected type) or IP4X (totally enclosed type) which are used in a place where the coolant temperature is not exceeding 40 °C (hereafter referred to as “motors”).

Remarks 1 The International Standards corresponding to this Standard are as follows.

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21**.

IEC 60034-1 : 1996 *Rotating electrical machines—Part 1 : Rating and performance* (MOD)

IEC 60034-2 : 1972 *Rotating electrical machines—Part 2 : Methods for determining losses and efficiency of rotating electrical machinery from tests* (MOD)

IEC 60034-9 : 1997 *Rotating electrical machines—Part 9 : Noise limits* (MOD)

IEC 60034-12 : 1972 *Rotating electrical machines—Part 12 : Starting performance of single-speed three-phase cage induction motors for voltage up to and including 660 V* (MOD)

IEC 60072-1 : 1991 *Dimensions and output series for rotating electrical machines—Part 1 : Frame numbers 56 to 400 and flange numbers 55 to 1080* (MOD)

2 The details of protection systems, IP2X and IP4X are as given in **JIS C 4034-5**.