



SLOVENSKI STANDARD

SIST HD 311.6 S1:1999

01-julij-1999

Magnetic tape sound recording and reproducing systems - Part 6: Reel-to-reel systems (IEC 60094-6:1985)

Magnetic tape sound recording and reproducing systems -- Part 6: Reel-to-reel systems

Systeme für Tonaufzeichnung und -wiedergabe auf Magnetband -- Teil 6:
Spulensysteme

Systèmes d'enregistrement et de lecture du son sur bandes magnétiques -- Partie 6:
Systèmes à bobines

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MAGNETIC TAPE SOUND RECORDING AND REPRODUCING SYSTEMS.

PART 6: REEL-TO-REEL SYSTEMS

Systèmes d'enregistrement et de lecture du son sur bandes magnétiques
 Sixième partie: Systèmes à bobines

Systeme für Tonaufzeichnung und -wiedergabe auf Magnetband
 Teil 6: Spulensysteme

BODY OF THE HD

The Harmonization Document consists of:

- IEC 94-6 (1985) ed 1; IEC/SC 60A, not appended

This Harmonization Document was approved by CENELEC on 1987-06-15.

The English and French versions of this Harmonization Document are provided by the text of the IEC publication and the German version is the official translation of the IEC text. The German translation is available.

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NORME DE LA CEI

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC STANDARD

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Première édition — First edition
1985

**Systèmes d'enregistrement et de lecture du son
sur bandes magnétiques**

Sixième partie : Systèmes à bobines

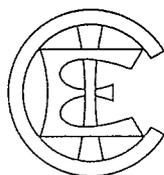
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Magnetic tape sound recording and reproducing systems

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MAGNETIC TAPE SOUND RECORDING AND REPRODUCING
SYSTEMS

Part 6 : Reel-to-reel systems

FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.
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PREFACE

This standard has been prepared by Sub-Committee 60A : Sound Recording, of IEC Technical Committee No. 60 : Recording.

This standard should be read in conjunction with IEC Publication 38 : Standard Voltages, IEC Publication 65 : Safety Requirements for Mains Operated Electronic and Related Apparatus for Household and Similar General Use, IEC Publication 268-1 : Sound System Equipment, Part 1 : General, IEC Publication 268-3 : Sound System Equipment, Part 3 : Sound System Amplifiers, IEC Publication 386 : Method of Measurement of Speed Fluctuations in Sound Recording and Reproducing Equipment, and IEC Publication 651 : Sound Level Meters.

The text of this standard is based on the following documents :

Six Months' Rule	Report on Voting
60A(CO)70	60A(CO)75

Further information can be found in the Report on Voting indicated in the table above.

IEC Publication 94 and its supplements are under revision. The new IEC Publication 94 will be issued in several parts, of which this is Part 6.

It will have the following parts :

Part 1 : General conditions and requirements

General : electrical requirements for the magnetic tape recording and reproducing systems ; mechanical requirements for the magnetic tape ; tape identification ; programme identification (Fourth edition, 1981).

Part 2 : Calibration tapes

Minimum requirements for calibration tapes for making adjustments and comparative assessments of the reproducing performance (First edition, 1975).

Part 3 : Methods of measuring the characteristics of recording and reproducing equipment for sound on magnetic tape (First edition, 1979)

Part 4: Mechanical magnetic tape properties

Characteristics to be specified and relevant methods of measurement. Equipment to be used to determine the mechanical properties of magnetic tapes.

Part 5: Electrical magnetic tape properties

Characteristics to be specified, methods of measurement and equipment to be used for the determination of the electrical properties of magnetic tape for analogue sound recording and reproduction.

Part 6: Reel-to-reel systems

Mechanical requirements and dimensions, including reels, hubs and relevant track allocations (object of this standard).

Part 7: Cassette for commercial tape records and domestic use

Mechanical requirements and dimensions, including track allocation (First edition, 1985).

Part 8: Eight-track magnetic tape cartridge for commercial tape records and domestic use

Mechanical requirements and dimensions, including track allocation.

Part 9: Magnetic tape cartridge for professional use

Mechanical requirements and dimensions, including track allocation.

Part 10: Time and address codes (In preparation).

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MAGNETIC TAPE SOUND RECORDING AND REPRODUCING SYSTEMS

Part 6 : Reel-to-reel systems

EXPLANATORY NOTES

This part of IEC Publication 94 shall be used in conjunction with the fourth edition (1981) of IEC Publication 94-1 : Magnetic Tape Sound Recording and Reproducing Systems, Part 1 : General Conditions and Requirements.

The clause numbers in this part correspond to those in IEC Publication 94-1 and any text given in this part shall modify the text given in IEC Publication 94-1. Absence of text in this part indicates that the provisions of the relevant clause in IEC Publication 94-1 apply.

SECTION ONE - GENERAL

1. Scope

This part applies to reel-to-reel recording and reproducing systems only.

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SECTION TWO – MECHANICAL REQUIREMENTS

12. Applications and mechanical/dimensional requirements of reels and hubs

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12.1 Applications

12.1.1 Professional programme exchange

For professional programme exchange the following reels and hubs shall be used :

12.1.1.1 6.3 mm magnetic tape width

Hub with 20 mm centre hole according to Figure 1, page 11.

Reel with 8 mm centre hole according to Figure 2, page 12.

Reel with 76 mm centre hole according to Figure 3, page 14.

Hub with 76 mm centre hole according to Figure 4, page 14.

12.1.1.2 12.7 mm - 25.4 mm - 50.8 mm magnetic tape width

Reel with 76 mm centre hole according to Figure 3.

Hub with 76 mm centre hole according to Figure 4.

12.1.2 Commercial tape records and domestic use

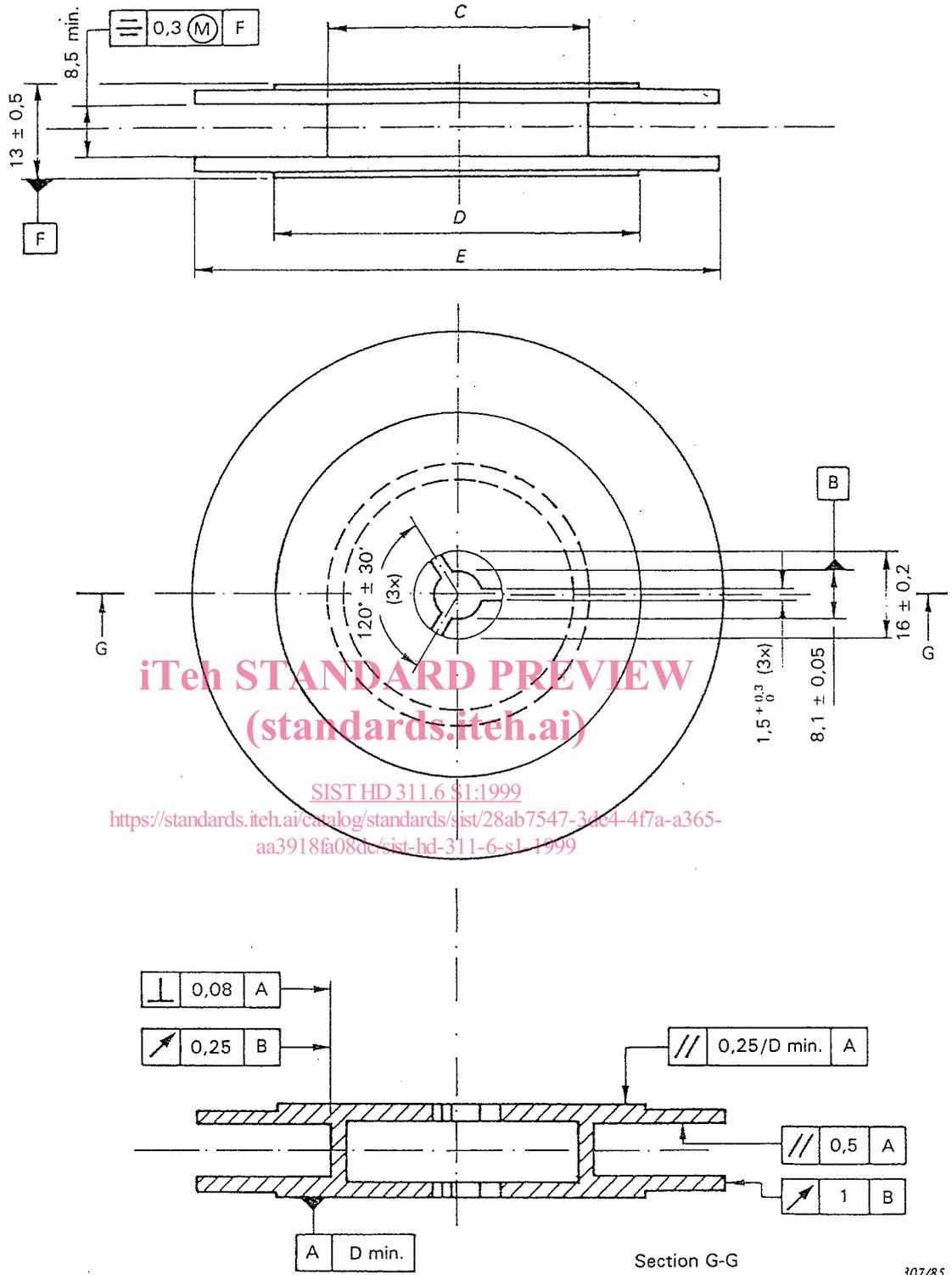
For commercial tape records and for domestic use the following reel shall be used :

12.1.2.1 6.3 mm magnetic tape width

Reel with 8 mm centre hole according to Figure 2.

12.2 Mechanical/dimensional requirements for reels and hubs

The mechanical and dimensional requirements for reels and hubs are shown in Figures 1 to 4 and their associated tables.



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Pour les dimensions C , D , E et les autres spécifications, voir tableau I.

For dimensions C , D , E and the other conditions see Table I.

FIG. 2. — Bobine avec trou central de 8 mm.
Reel with 8 mm centre hole.

TABLEAU I (figure 2)
Bobine avec trou central de 8 mm

TABLE I (Figure 2)
Reel with 8 mm centre hole

Dimensions nominales Nominal size	$C \pm 1$	D min.	$E \pm 1$	Moment d'inertie maximal Maximum moment of inertia	Masse maximale Maximum mass
mm	mm	mm	mm	kg m ²	g
75	45 *	75	75	$14 \cdot 10^{-6}$	30
100	45 *	90	100	$40 \cdot 10^{-6}$	50
130	45	90	127	$110 \cdot 10^{-6}$	60
150	50	90	147	$200 \cdot 10^{-6}$	80
180	60	90	178	$450 \cdot 10^{-6}$	110
180	102	90	178	$450 \cdot 10^{-6}$	110
220	90	90	220	$800 \cdot 10^{-6}$	140
250	100	90	250	$1\,300 \cdot 10^{-6}$	170
270	114	90	266	$1\,500 \cdot 10^{-6}$	200

* Certains pays utilisent un diamètre de 35 mm. * Some countries use a diameter of 35 mm.

Les spécifications suivantes doivent être respectées :

1. Les bobines doivent être de construction symétrique pour permettre leur montage par un côté ou par l'autre.
2. La largeur de 13,5 mm doit être obtenue à l'intérieur d'un cercle de diamètre D . La largeur hors du diamètre D doit être égale ou plus petite que 13,5 mm.
3. Des bossages, des stries ou des reliefs sont autorisés sur la face externe des flancs, pourvu qu'ils ne dépassent pas les plans définis par la dimension de 13,5 mm.

The following conditions shall apply :

1. Reels shall be symmetrical to permit mounting from either side.
2. The width of 13.5 mm shall be obtained within the diameter D . The width outside diameter D shall be equal to or smaller than 13.5 mm.
3. Bosses, ribs or raised designs are permitted on the outside surfaces of the flanges, provided they do not extend beyond the planes defined by dimension 13.5 mm.