
International Standard



5653

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Information processing — Interchangeable magnetic twelve-disk pack (200 Mbytes)

Traitement de l'information — Chargeur magnétique interchangeable à douze disques (200 mégaoctets)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 5653 was developed by Technical Committee ISO/TC 97, *Computers and information processing*, and was circulated to the member bodies in August 1978.

It has been approved by the member bodies of the following countries:

Australia	Italy	Sweden
Belgium	Japan	Switzerland
Brazil	Mexico	United Kingdom
Bulgaria	Netherlands	USA
Czechoslovakia	Poland	USSR
Egypt, Arab Rep. of	Romania	Yugoslavia
France	South Africa, Rep. of	
Germany, F. R.	Spain	

No member body expressed disapproval of the document.

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Information processing — Interchangeable magnetic twelve-disk pack (200 Mbytes)

1 Scope and field of application

This International Standard specifies the general, physical, and magnetic characteristics and the pre-initialization for the physical interchange of 200 Mbytes magnetic twelve-disk packs, for use in electronic data processing systems.

NOTE — The original design of the subject of this International Standard was made using the Imperial measurement system. Some later developments, however, have been made using the SI measurement system. In the process of conversion into the alternative system, values may have been rounded. Therefore, they are consistent with but not exactly equal to each other. Either system may be used, but the two shall be neither mixed nor reconverted.

2 References

- ISO/R 80, *Rockwell hardness test (B and C scales) for steel*.
- ISO 646, *7-bit coded character set for information processing interchange*.
- ISO 1302, *Technical drawings — Method of indicating surface texture on drawings*.
- ISO 2022, *Code extension techniques for use with the ISO 7-bit coded character set*.
- ISO 5864, *ISO inch screw threads — Allowances and tolerances*.

Section one — General description

3 General description

3.1 General figures

A typical twelve-disk pack is represented in figures 6 to 11 :

- figure 6 shows an exploded view;
- figure 7 shows a vertical cross-section;
- figure 8 shows, at an enlarged scale, the relationship between the top cover and the bottom protective disk;
- figure 9 shows a schematic cross-section of part of the disk pack;
- figure 10 shows a schematic cross-section of the spindle lock;
- figure 11 shows an enlarged view of the edge of a disk.

3.2 Main elements

The main elements of this twelve-disk pack are :

- the top cover;
- the hub;

- the spindle lock;
- the protective disks;
- the recording disks;
- the servo surface;
- the bottom cover.

Other elements shown in the drawings are for better understanding of the figures only and are not part of the standard.

3.3 Direction of rotation

The disk pack shall rotate counter-clockwise when viewed from the top.

3.4 Pack capacity

A gross information capacity of 200 million 8-bit bytes is achieved in this 12-disk pack by the use of 19 data disk surfaces. Data are recorded on 808 tracks per data surface. The track spacing gives approximately 15 tracks per millimetre, each containing a maximum of 13 030 8-bit bytes of information. The recording density varies between outer and inner tracks and reaches a maximum of 159 bpmm on the innermost track.