



Indian Standard

**DIMENSIONS OF MECHANICAL
STRUCTURES OF THE 482.6 mm SERIES**

PART 1 CABINETS AND PITCHES OF RACK STRUCTURES

Section 1 Cabinets

1. Scope — Covers basic dimensions of free-standing cabinets used in 482.6 mm rack and panel electronic equipment practice.

2. Description — For the purpose of this standard, a cabinet is defined as a free-standing and self-supporting enclosure for electronic equipment capable of being used alone or in combination with other cabinets to form a suite. A cabinet may or may not have a plinth, feet, rollers, castors, etc, depending on the load-carrying and mobility requirements of the user.

It may be fitted with doors or side panels or both on one or more sides to suit the application.

A cabinet will house or incorporate vertical members to which can be attached panels, etc, in accordance with IS : 9606-1980 'Dimensions of panels and racks (482.6 mm system)'.

A rack is a metallic structure without doors or coverings.

3. Basic Dimensions — Basic dimensions and other details are given in Fig. 1.

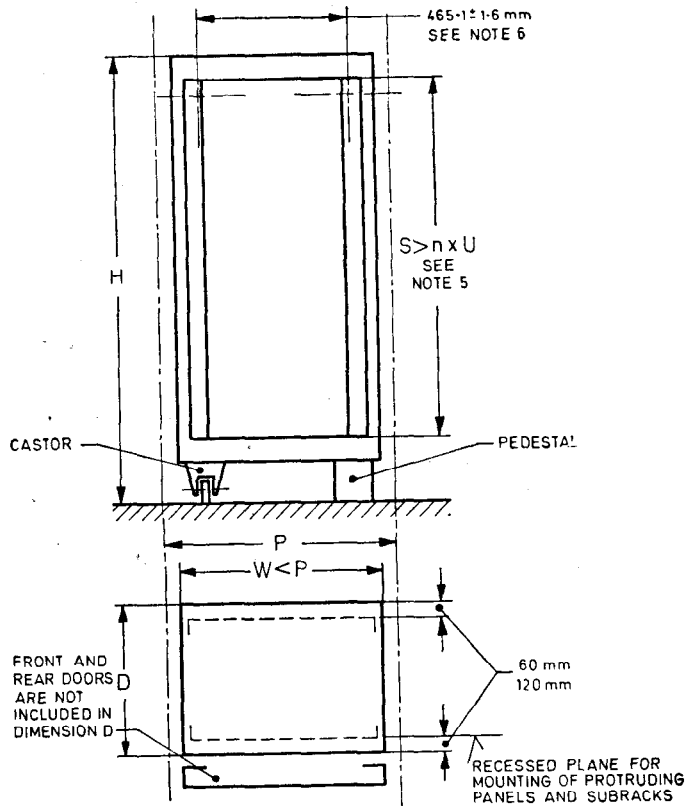
EXPLANATORY NOTE

This standard (Part 1) is based, without any technical change, on IEC Pub 297-2 (1982) 'Dimensions of mechanical structures of the 482.6 mm (19 inch) series', issued by the International Electrotechnical Commission (IEC).

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Note 1 — The values for height, H , and depth, D , are overall cabinet dimensions to which normal production tolerances apply. The castor wheel or pedestal mounted racks may have height more than H depending on the manner of mounting the castor wheels.

Note 2 — For height, an increment of 200 mm is chosen ($2 \times 200 \text{ mm} = 9 U$).

Note 3 — The pitch, P , is the theoretical distance between datum lines for mounting of cabinets in a row. The width $W < P$ shall be chosen and toleranced so that a suite of cabinets can be installed with the required pitch; in special cases where other pitch dimensions are required, these shall be in increments of 100 mm.

Note 4 — For depth, an increment of 200 mm is chosen. The intermediate size of 450 mm is a recommended value.

Note 5 — S designates the vertical aperture for mounting of panels and subracks and is a typical dimension only. In order to facilitate economy in manufacturing racks of different heights, the aperture between top and bottom frames may be more than S but in such cases the aperture in excess of S should be covered by dummy panels, or otherwise by the manufacturer of the cabinets, U is the vertical increment 44.45 mm according to IS : 9606-1980.

Note 6 — For fixing dimensions, see IS : 9606-1980.

Height, H (mm)	800	1 000	1 200	1 400	1 600	1 800	2 000	2 200
$S (= n \times u)$	$13 \times U$	$18 \times U$	$22 \times U$	$27 \times U$	$31 \times U$	$36 \times U$	$40 \times U$	$45 \times U$
Pitch, P (mm)	550*	600	700†	800	900	—	—	—
Depth D (mm)	400	450‡	600	650§	800	900	—	—

*For applications where space is restricted to less than 600 mm and side cabling within the cabinet is minimal.

†Principally for applications involving swinging racks.

‡The basic depth of 450 mm allows the addition of maintenance controls, cooling fins and covers at front and rear to increase the overall depth to 520 mm.

§Not recommended for future applications.

FIG. 1 BASIC DIMENSIONS