# A format

The dimensions of the **A** series paper sizes, as defined by the ISO 216 standard, are given in the table in both millimetres and inches.

| Size | Width x height (mm) | Width x height (in) |
|---|---|---|
| 4A0 | 1682 x 2378 mm | 66.2 x 93.6 in |
| 2A0 | 1189 x 1682 mm | 46.8 x 66.2 in |
| A0 | 841 x 1189 mm | 33.1 x 46.8 in |
| A1 | 594 x 841 mm | 23.4 x 33.1 in |
| A2 | 420 x 594 mm | 16.5 x 23.4 in |
| A3 | 297 x 420 mm | 11.7 x 16.5 in |
| A4 | 210 x 297 mm | 8.3 x 11.7 in |
| A5 | 148 x 210 mm | 5.8 x 8.3 in |
| A6 | 105 x 148 mm | 4.1 x 5.8 in |
| A7 | 74 x 105 mm | 2.9 x 4.1 in |
| A8 | 52 x 74 mm | 2.0 x 2.9 in |
| A9 | 37 x 52 mm | 1.5 x 2.0 in |
| A10 | 26 x 37 mm | 1.0 x 1.5 in |

## 4A0 and 2A0 - The DIN 476 Oversize Formats

The paper sizes bigger than A0, 4A0 and 2A0, aren't formally defined by ISO 216 but are commonly used for oversized paper. The origin of these formats is in the German DIN 476 standard, that was the original base document from which ISO 216 was derived.

## A Series Paper Size Tolerances

ISO 216 specifies tolerances for the production of A series paper sizes as follows:

- ±1.5 mm (0.06 in) for dimensions up to 150 mm (5.9 in)
- ±2 mm (0.08 in) for lengths in the range 150 to 600 mm (5.9 to 23.6 in)
- ±3 mm (0.12 in) for any dimension above 600 mm (23.6 in)

## A Series Paper Sizes Defined

The A series paper sizes are defined in ISO 216 by the following requirements:

- The length divided by the width is 1.4142
- The A0 size has an area of 1 square metre.
- Each subsequent size A(n) is defined as A(n-1) cut in half parallel to its shorter sides.
- The standard length and width of each size is rounded to the nearest millimetre.

Note: For reference the last item is there because the root 2 aspect ratio doesn't always give a whole number.

Source: papersizes.org.

# B format

The dimensions of the **B** series paper sizes, as defined by the ISO 216 standard, are given in the table in both millimetres and inches.

| Size | Width x Height (mm) | Width x Height (in) |
|---|---|---|
| B0 | 1000 x 1414 mm | 39.4 x 55.7 in |
| B1 | 707 x 1000 mm | 27.8 x 39.4 in |
| B2 | 500 x 707 mm | 19.7 x 27.8 in |
| B3 | 353 x 500 mm | 13.9 x 19.7 in |
| B4 | 250 x 353 mm | 9.8 x 13.9 in |
| B5 | 176 x 250 mm | 6.9 x 9.8 in |
| B6 | 125 x 176 mm | 4.9 x 6.9 in |
| B7 | 88 x 125 mm | 3.5 x 4.9 in |
| B8 | 62 x 88 mm | 2.4 x 3.5 in |
| B9 | 44 x 62 mm | 1.7 x 2.4 in |
| B10 | 31 x 44 mm | 1.2 x 1.7 in |

## B Series Paper Size Tolerances

ISO 216 specifies tolerances for the production of B series paper sizes in the same way as for A series paper sizes, the specific details of which are as follows:

- ±1.5 mm (0.06 in) for dimensions up to 150 mm (5.9 in)
- ±2 mm (0.08 in) for lengths in the range 150 to 600 mm (5.9 to 23.6 in)
- ±3 mm (0.12 in) for any dimension above 600 mm (23.6 in)

## B Series Paper Sizes Definition

The B series paper sizes are defined in ISO 216 in the following way.

The B series paper sizes were created in order to provide paper sizes that weren't covered by the A series, but also use an aspect ratio of 1:root2. B sizes are defined as size B(n) being the geometric mean of size A(n) and size A(n-1). The Geometric Means of 2 numbers being the square root of the product of the two numbers.

This system gives a useful property for enlarging and reducing documents in that the enlargement from A(n) to B(n) is the same as that from B(n) to A(n-1).

As with the A series paper sizes, the standard lengths and widths are rounded to the nearest millimetre.

Source: papersizes.org.

# C format

The dimensions of the **C** series paper sizes, as defined by the ISO 216 standard, are given in the table in both millimetres and inches.

| Size | Width x Height (mm) | Width x Height (in) |
|---|---|---|
| C0 | 917 x 1297 mm | 36.1 x 51.5 in |
| C1 | 648 x 917 mm | 25.5 x 36.1 in |
| C2 | 458 x 648 mm | 18.0 x 25.5 in |
| C3 | 324 x 458 mm | 12.8 x 18.0 in |
| C4 | 229 x 324 mm | 9.0 x 12.8 in |
| C5 | 162 x 229 mm | 6.4 x 9.0 in |
| C6 | 114 x 162 mm | 4.5 x 6.4 in |
| C7 | 81 x 114 mm | 3.2 x 4.5 in |
| C8 | 57 x 81 mm | 2.2 x 3.2 in |
| C9 | 40 x 57 mm | 1.6 x 2.2 in |
| C10 | 28 x 40 mm | 1.1 x 1.6 in |

## C Series Envelope Size Tolerances

Tolerances specified in ISO 216 for the C series envelope sizes are the same as for A and B series paper sizes and are as follows:

- ±1.5 mm (0.06 in) for dimensions up to 150 mm (5.9 in)
- ±2 mm (0.08 in) for lengths in the range 150 to 600 mm (5.9 to 23.6 in)
- ±3 mm (0.12 in) for any dimension above 600 mm (23.6 in)

## C Series Envelope Size Definitions

C envelopes sizes are defined as the geometric mean of the A and B sizes with the same number i.e. C4 dimensions are the geometric mean of A4 and B4. This produces a size between the two that makes an envelope that will neatly hold the A series paper of the same size, thus a C4 envelope is perfect for an A4 sheet of paper unfolded.

It should be noted that C format envelopes also have an aspect ratio of 1:root2 and because of this an A4 sheet folded parallel to its shortest sides will fit in a C5 envelope and folded twice will fit a C6 envelope.

The following diagrams show C4, C5 and C6 envelopes compared to A4 paper size (the envelope being shown in brown with the paper shown as grey) as can be seen in the first diagram the C4 envelope can contain an A4 sheet, the C5 envelope can contain an A4 sheet folded in half (an A5 sheet) and the C6 envelope can contain an A4 sheet folded in half twice (an A6 sheet). This is the reason that you will sometimes see these envelope sizes being referred to as A4 envelope size, A5 envelope size and A6 envelope size.

Source: papersizes.org.

letter page

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A4 page

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