International Standard

ISO 13351

Fans — Dimensions

Ventilateurs — Dimensions

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 117, *Fans,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 156, *Ventilation for buildings,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 13351:2009), which has been technically revised.

The main changes are as follows:

— added to the sizes of the heavy-duty fans in Table 3;

— aligned definitions and symbols to ISO 13349-1;

— clarified Figure 3 for mixed flow fan.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

This document gives dimensional details of circular and rectangular flanges of fans in addition to specifying the fan size designation. For circular flanges, the values specified in ISO 6580[1)] have been retained for light-duty fans, in parallel with those values given in Tables 3 and 4 for medium- and heavy-duty fans.

While it does not constrain the manufacturer's choice of flange details, this document facilitates interchangeability, thereby helping reduce technical barriers to trade.

Throughout this document, the principal dimensions are based on the rounded values of preferred numbers given in ISO 497.

1) Cancelled and replaced by ISO 13351.

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Fans — Dimensions

1 Scope

This document specifies the dimensions of the circular and rectangular flanges of general-purpose fans, as well as the fan size designations. It is not applicable to cross-flow fans or to fan appliances used for individual household or similar applications.

For circular flanges, it provides for three different flange series: one for light-duty casing thicknesses, another for medium-duty fans and the third for heavy-duty fans as used on sea-going vessels or in heavy industry.

In order not to restrict fan design unduly, only the pitch diameter, hole numbers and hole diameters are specified. Flange thickness, as well as internal and external flange diameters, can be chosen freely within the limits of good engineering practice.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3, *Preferred numbers — Series of preferred numbers*

ISO 13349-1, *Fans — Vocabulary and definitions of categories — Part 1: Vocabulary*

ISO 13349-2, *Fans — Vocabulary and definitions of categories — Part 2: Categories*

3 Terms, definitions and symbols

For the purposes of this document, the terms and definitions given in ISO 13349-1, ISO 13349-2 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1 Terms and definitions

3.1.1
light-duty fan
fan suitable for air that is non-toxic, not saturated, non-corrosive, non-flammable, free from abrasive particles, and not exceeding a temperature of 80 °C, or 40 °C if the motor or the fan bearings are in the air stream, and for pressures up to 2 kPa

Note 1 to entry: See Table 1.

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