INTERNATIONAL STANDARD

ISO 12759-4

First edition
2019-10

Fans — Efficiency classification for fans —

Part 4: Driven fans at maximum operating speed

Ventilateurs — Classification du rendement des ventilateurs —
Partie 4: Ventilateurs entraînés à vitesse maximale de fonctionnement

Reference number
ISO 12759-4:2019(E)

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Published in Switzerland

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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 documents 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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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 117, *Fans*.

This first edition of ISO 12759-4, together with ISO 12759-1, ISO 12759-2, ISO 12759-3, ISO 12759-5[1)] and ISO 12759-6[2)], cancels and replaces ISO 12759:2010, which has been technically revised. It also incorporates the Amendment ISO 12759:2010/Amd.1:2013.

A list of all parts in the ISO 12759 series can be found on the ISO website.

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.

1) Under preparation. Stage at the time of publication: ISO/DIS 12759-5:2019.

2) Under preparation. Stage at the time of publication: ISO/CD 12759-6:2019.

Introduction

The last decade has seen an escalation in the price and an increasing recognition of the finite life of many of the fossil fuels currently used. There is also a belief by many that climatic change is due to increasing levels of carbon dioxide in the atmosphere. This has led to many nations reviewing methods of energy generation and usage.

To maintain economic growth there is therefore a need to promote energy efficiency. This requires better selection of equipment by users and thus better design of this equipment by manufacturers.

Fans of all types are used for ventilation, air conditioning, process engineering – drying, pneumatic conveying – combustion air supply and agriculture. Indeed, the energy use of fans has been calculated to account for nearly 20 % of the global electricity usage.

The fan industry is global in nature, with a considerable degree of exporting and licensing. To ensure that the definitive fan performance characteristics are common throughout the world, a series of standards has been developed. It is the belief of the industry that there is now a need for minimum efficiency standards to be recognised. To encourage their implementation, a classification system is proposed which incorporates a series of efficiency bands. With improvements in technology and manufacturing processes, the minimum efficiency levels could be reviewed and increased over time.

This document can be used by legislators or regulatory bodies for defining future energy-saving targets.