First edition 1997-07-01

## Climatic data for building design — Proposed system of symbols

Données climatiques pour la conception des bâtiments — Système de symboles proposé

This material is reproduced from ISO documents under International Organization for Standardization (ISO) Copyright License number IHS/ICC/1996. Not for resale. No part of these ISO documents may be reproduced in any form, electronic retrieval system or otherwise, except as allowed in the copyright law of the country of use, or with the prior written consent of ISO (Case postale 56, 1211 Geneva 20, Switzerland, Fax +41 22 734 10 79), IHS or the ISO Licensor's members.



Reference number ISO 6243:1997(E)

## Contents

#### Page

1	Scope	1
2	Air temperature	1
3	Solar radiation (thermal)	2
4	Solar radiation (light)	3
5	Long-wave radiation	3
6	Total radiation	3
7	Radiation balance	3
8	Atmospheric humidity	3
9	Wind	4
10	Rain	4
11	Snow	5
Annexes		
A	Letter symbols to represent climatological descriptions	6
в	Bibliography	17

© ISO 1997

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for StandardizationCase postale 56 • CH-1211 Genève 20 • SwitzerlandInternetcentral@iso.chX.400c=ch; a=400net; p=iso; o=isocs; s=central

Printed in Switzerland

© ISO

This is a preview of "ISO 6243:1997". Click here to purchase the full version from the ANSI store.

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75% of the member bodies casting a vote.

International Standard ISO 6243 was prepared by Technical Committee ISO/TC 59, *Building construction*, Subcommittee SC 3, *Functional/user requirements and performance in building construction*.

Annexes A and B of this International Standard are for information only.

## Introduction

Many types of climatological data are used to define the nature and severity of external conditions with a view to establishing building performance. This International Standard gives precise definitions, gives guidance on methods and units of measurement, and proposes letter symbols for a series of meteorological parameters used for building design, in most cases by reference to the "World Meterological Organization Guide" (WMO). It also defines a number of parameters in current usage. The different values of climatological parameters may be used in different aspects of design. The data defined in this International Standard are linked to a series of applications such as heating and ventilation design, the calculation of energy consumption, structural design, rainwater drainage and the durability of materials. This International Standard is limited to relatively simple measurements and excludes derived values such as the distributions of frequency, except when discussing illuminance.

Annex A gives letter symbols to represent climatological descriptions. This provides a system, independent of language, to express statistical quantities concisely.

Once this system has been understood and assimilated, it will provide precise designations, irrespective of the language used, and should therefore facilitate the international exchange and use of climatological data. It is proposed that the symbols be used in databases in conjunction with written descriptions in the language for the country of origin of the data. This should be of particular assistance for data that are not presented in one of the international languages. However, the usefulness of this system may only be assessed by putting it into practice.

# Climatic data for building design — Proposed system of symbols

#### 1 Scope

This International Standard defines a range of climatological data required for building design, gives guidance on methods of measurement and proposes symbols to designate them. It does not deal with suffixes or concepts combining several types of data, or values derived from basic data such as degree-days or characteristic wind speed.

The definitions and symbols given in this International Standard aim to harmonize the expression of climatological data which may be drawn on when drafting regulatory and standard documents and when definitions and symbols are required for building design and construction.

#### 2 Air temperature

#### 2.1 Method of measurement, unit and symbol

Air temperature should be measured in accordance with WMO Guide No. 8. It is expressed in degrees Celsius, rounded to the nearest 0,1 °C and is denoted by the symbol *t*.

#### 2.2 Climatological parameters

**2.2.1** The absolute maximum and minimum temperatures are the extremes recorded over a given period. They should be given with an indication of this period defined by the boundary years.

#### EXAMPLE

Absolute minimum temperature (1961-1990)

**2.2.2** The absolute maximum and minimum for a given month are the extremes recorded for this month during a given period. They are given with an indication of the month and the period defined by the boundary years.

#### EXAMPLE

Absolute maximum temperature in February (1961-1990)