

ISO 15927-1:2003-11 (E)

Hygrothermal performance of buildings - Calculation and presentation of climatic data - Part 1: Monthly means of single meteorological elements

Contents		Page
Foreword		v
1 Scope	1	1
2 Normative references		1
3 Terms, definitions, symbols and units		1
3.1 Terms and definitions		1
3.2 Symbols and units		3
4 Periods over which parameters are calculated		4
5 Air temperature		5
5.1 Sources of data		5
5.2 Calculation of the monthly mean		5
5.3 Calculation of the standard deviation of daily means about the monthly mean		6
5.4 Calculation of the annual mean and standard deviation		7
5.5 Expression of results		7
6 Atmospheric humidity		8
6.1 Sources of data		8
6.2 Relationships between temperature and humidity parameters		8
6.3 Calculation of monthly mean		10
6.4 Expression of results		11
7 Wind speed and direction		13
7.1 Methods of measurement		13
7.2 Environmental influence on mean wind speed		13
7.3 Statistical elements		17
7.4 Expression of results		18
8 Precipitation		19
8.1 Sources of data		19
8.2 Calculation of monthly total		19
8.3 Expression of results		19
9 Solar radiation		19
9.1 Sources of data		19
9.2 Calculation of monthly total solar irradiation		20
9.3 Expression of results		21
9.4 Estimating irradiances that are not measured		21
10 Longwave radiation		21
10.1 General		21
10.2 Sources of data		21
10.3 Calculation of monthly total longwave irradiation from the atmosphere (sky)		21
10.4 Expression of results		22
Annex A (informative) Methods for splitting global solar irradiance into the direct and diffuse parts		23

Annex B (informative) Methods for estimating the longwave atmospheric irradiances (longwave sky irradiances)and the sky temperature	24
Bibliography	26