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MINISTRY OF TRANSPORT

— TECHNICAL REPORT —
99-5

**Observed Air Temperature, Humidity, Pressure,
Cloud Cover and Weather in Denmark
- with Climatological Standard Normals, 1961-90**

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Please note that observed precipitation and observed sunshine in Denmark, 1961-1990, have been published in DMI Technical Reports previously (Frich et al., 1997, Laursen & Cappelen, 1998) and that a DMI Technical Report on the observed wind is forthcoming.

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List of contents

1. Introduction	5
2. The Danish Weather	6
3. Observations and methods	9
3.1 The meteorological day	9
3.2 The stations.....	9
3.3 The monthly values	9
3.4 Replacement of erroneous or missing values	10
3.5 Homogeneity of the series	10
4. Air temperature.....	12
4.1 Mean temperature	12
4.2 Average maximum temperature.....	16
4.3 Absolute maximum temperature.....	20
4.4 Number of ice days ($T_{max} < 0^{\circ}\text{C}$)	26
4.5 Number of summer days ($T_{max} > 25^{\circ}\text{C}$)	30
4.6 Average minimum temperature	34
4.7 Absolute minimum temperature	38
4.8 Number of cold days ($T_{min} < -10^{\circ}\text{C}$)	44
4.9 Number of days with frost ($T_{min} < 0^{\circ}\text{C}$)	48
4.10 Number of tropical nights ($T_{min} > 20^{\circ}\text{C}$).....	52
4.11 Heating degree days.....	56
4.12 Tables for 9 selected stations.....	60
4.12.1 Length and frequency of frost periods	60
4.12.2 Average date of first and last frost	69
4.12.3 Average date of first summer day.....	71
5. Humidity	72
5.1 Variation in daily relative humidity	73
5.2 Mean relative humidity.....	76
5.3 Mean absolute humidity	80
5.4 Mean relative humidity at 06 or 07 UTC	84
5.5 Mean relative humidity at 13 or 15 UTC	88
6. Atmospheric pressure	93
6.1 Mean atmospheric pressure	94
6.2 Absolute maximum atmospheric pressure.....	96
6.3 Absolute minimum atmospheric pressure	98
7. Cloud cover	101
7.1 Mean cloud cover	102
7.2 Number of clear days.....	106
7.3 Number of cloudy days.....	110

8. Weather	114
8.1 Number of days with snowfall.....	114
8.2 Number of days with snow cover	118
8.3 Number of days with fog (visibility < 1km).....	122
8.4 Number of days with thunder	126
9. References	131

Appendix 1. Climate elements.....	135
Appendix 2. Contents of CD-ROM.....	137

List of climate data tables:

Table 4.1.1. Mean temperature (°C). Climatological standard normals, 1961-1990.....	14
Table 4.1.2. Mean temperature (°C). Provisional normal averages.....	15
Table 4.2.1. Average max. temperature (°C). Climatological standard normals, 1961-1990.....	18
Table 4.2.2. Average max. temperature (°C). Provisional normal averages.....	19
Table 4.3.1. Absolute max. temperature (°C). Climatological extreme, 1961-1990.	22
Table 4.3.2. Absolute max. temperature (°C). Provisional climate extreme.	25
Table 4.4.1. Number of ice days. Climatological standard normals, 1961-1990.....	28
Table 4.4.2. Number of ice days. Provisional normal averages.	29
Table 4.5.1. Number of summer days. Climatological standard normals, 1961-1990.....	32
Table 4.5.2. Number of summer days. Provisional normal averages.	33
Table 4.6.1. Average min. temperature (°C). Climatological standard normals, 1961-1990.	36
Table 4.6.2. Average min. temperature (°C). Provisional normal averages.	37
Table 4.7.1. Absolute min. temperature (°C). Climatological standard normal, 1961-1990.....	40
Table 4.7.2. Absolute min. temperature (°C). Provisional normal averages.	43
Table 4.8.1. Number of cold days. Climatological standard normals, 1961-1990.	46
Table 4.8.2. Number of cold days. Provisional normal averages.	47
Table 4.9.1. Number of days with frost. Climatological standard normals, 1961-1990.	50
Table 4.9.2. Number of days with frost. Provisional normal averages.....	51
Table 4.10.1. Number of tropical nights. Climatological standard normals, 1961-1990.....	54
Table 4.10.2. Number of tropical nights. Provisional normal averages.	55
Table 4.11.1. Heating degree days. Climatological standard normals, 1961-1990.	58
Table 4.11.2. Heating degree days. Provisional normal averages.	59
Table 4.12.1. Frequency and length of frost periods. 06030 Flyvestation Ålborg.	61
Table 4.12.2. Frequency and length of frost periods. 06052 Thyborøn.	62
Table 4.12.3. Frequency and length of frost periods. 06060 Flyvestation Karup.	63
Table 4.12.4. Frequency and length of frost periods. 06110 Flyvestation Skrydstrup.	64
Table 4.12.5. Frequency and length of frost periods. 06120 Odense Lufthavn.	65
Table 4.12.6. Frequency and length of frost periods. 06139 Keldsnor Fyr.	66
Table 4.12.7 Frequency and length of frost periods. 06160 Flyvestation Værløse	67
Table 4.12.8. Frequency and length of frost periods. 06180 Københavns Lufthavn	68
Table 4.12.9 Frequency and length of frost periods. 06190 Bornholms Lufthavn	69
Table 4.12.10. Average date of first and last frost and average length of frost free period.	70
Table 4.12.11. Average date of first summer day, 1961-1990.	71
Table 5.2.1. Mean relative humidity (%). Climatological standard normals, 1961-1990.....	78
Table 5.2.2.Mean relative humidity (%). Provisional normal averages.	79
Table 5.3.1. Mean absolute humidity (g/m ³). Climatological standard normal, 1961-1990.....	82

Table 5.3.2. Mean absolute humidity (g/m ³). Provisional normal averages.....	83
Table 5.4.1. Mean relative humidity at 06 or 07 UTC. Climatological standard normals, 1961-1990.	86
Table 5.4.2. Mean relative humidity at 06 or 07 UTC. Provisional normal averages.	87
Table 5.5.1. Mean relative humidity at 13 or 15 UTC. Climatological standard normals, 1961-1990.	90
Table 5.5.2. Mean relative humidity at 13 or 15 UTC. Provisional normal averages.	91
Table 6.1.1. Mean atmospheric pressure. Climatological standard normals, 1961-1990.	95
Table 6.2.1. Absolute maximum atmospheric pressure. Climatological extreme, 1961-1990.....	97
Table 6.3.1. Absolute minimum atmospheric pressure. Climatological extreme 1961-1990.	99
Table 7.1.1. Mean cloud cover (%). Climatological standard normals, 1961-1990.	104
Table 7.1.2. Mean cloud cover (%). Provisional normal averages.....	105
Table 7.2.1. Number of clear days. Climatological standard normals, 1961-1990.	108
Table 7.2.2. Number of clear days. Provisional normal averages.	109
Table 7.3.1. Number of cloudy days. Climatological standard normals, 1961-1990.	112
Table 7.3.2. Number of cloudy days. Provisional normal averages.	113
Table 8.1.1. Number of days with snowfall. Climatological standard normals, 1961-1990.....	116
Table 8.1.2. Number of days with snowfall. Provisional normal averages.....	117
Table 8.2.1. Number of days with snow cover. Climatological standard normals, 1961-1990.	120
Table 8.2.2. Number of days with snow cover. Provisional normal averages.	121
Table 8.3.1. Number of days with fog. Climatological standard normals, 1961-1990.	124
Table 8.3.2. Number of days with fog. Provisional normal averages.....	125
Table 8.4.1. Number of days with thunder. Climatological standard normals, 1961-1990.	128
Table 8.4.2. Number of days with thunder. Provisional normal averages.	129

List of station maps:

Map 4.1. Stations with mean temperature normals. See station catalogue 4.1.	12
Map 4.2. Stations with average maximum temperature normals. See station catalogue 4.2.....	16
Map 4.3. Stations with absolute maximum temperature. See station catalogue 4.3.	20
Map 4.4. Stations with number of ice days normals. See station catalogue 4.4.	26
Map 4.5. Stations with number of summer days normals. See station catalogue 4.5.	30
Map 4.6. Stations with average minimum temperature normals. See station catalogue 4.6.	34
Map 4.7. Stations with absolute minimum temperature. See station catalogue 4.7.	38
Map 4.8. Stations with number of cold days normals. See station catalogue 4.8.	44
Map 4.9. Stations with number of days with frost normals. See station catalogue 4.9.	48
Map 4.10. Stations with number of tropical nights normals. See station catalogue 4.10.....	52
Map 4.11. Stations with heating degree days normals. See station catalogue 4.11.	56
Map 4.12. The 9 selected stations of subsection 4.12.	60
Map 5.1. Stations with mean relative humidity normals. See station catalogue 5.1.	76
Map 5.2. Stations with absolute humidity normals. See station catalogue 5.2.	80
Map 5.3. Stations with relative humidity at 6 or 7 UTC normals. See station catalogue 5.3.	84
Map 5.4. Stations with relative humidity at 13 or 15 UTC normals. See station catalogue 5.4.	88
Map 6.1. Stations with atmospheric pressure normals. See station catalogue 6.1.	94
Map 6.2. Stations with maximum atmospheric pressure. See station catalogue 6.2.	96
Map 6.3. Stations with minimum atmospheric pressure. See station catalogue 6.3.	98
Map 7.1. Stations with cloud cover normals. See station catalogue 7.1.	102
Map 7.2. Station with number of clear days normals. See station catalogue 7.2.....	106
Map 7.3. Stations with number of cloudy days normals. See station catalogue 7.3.	110
Map 8.1. Stations with number of days with snowfall normals. See station catalogue 8.1.....	114

Map 8.2. Stations with number of days with snow cover normals. See station catalogue 8.2	118
Map 8.3. Stations with number of days with fog normals. See station catalogue 8.3.....	122
Map 8.4. Stations with number of days with thunder normals. See station catalogue 8.4.....	126

List of station catalogues:

Station catalogue 4.1. Element number 101: Mean temperature	13
Station catalogue 4.2. Element number 111: Average maximum temperature.....	17
Station catalogue 4.3. Element number 112: Absolute maximum temperature.....	21
Station catalogue 4.4 Element number 114: Number of ice days (Tmax < 0°C).....	27
Station catalogue 4.5 Element number 115: Number of summer days (Tmax > 25°C).....	31
Station catalogue 4.6. Element number 121: Average minimum temperature.....	35
Station catalogue 4.7. Element number 122: Absolute minimum temperature.....	39
Station catalogue 4.8. Element number 124: Number of cold days (Tmin < -10°C).....	45
Station catalogue 4.9. Element number 125: Number of days with frost (Tmin < 0°C).....	49
Station catalogue 4.10. Element number 126: Number of tropical nights (Tmin > 20 °C)	53
Station catalogue 4.11. Element number 147: Heating degree days (sum of 17 °C -Tday).....	57
 Station catalogue 5.1. Element number 201: Mean relative humidity.....	77
Station catalogue 5.2. Element number 240: Absolute humidity.....	81
Station catalogue 5.3. Element number 256, 257: Mean relative humidity at 06, 07 UTC.....	85
Station catalogue 5.4. Element number 263, 265: Mean relative humidity at 13, 15 UTC.....	89
 Station catalogue 6.1. Element number 401: Mean atmospheric pressure.	94
Station catalogue 6.2. Element number 410, absolute maximum atmospheric pressure.....	96
Station catalogue 6.3. Element number 420: Absolute minimum atmospheric pressure.	98
 Station catalogue 7.1. Element number 801: Mean cloud cover.	103
Station catalogue 7.2. Element number 802: Number of clear days.....	107
Station catalogue 7.3. Element number 803: Number of cloudy days.....	111
 Station catalogue 8.1. Element number 607: Number of days with snowfall.	115
Station catalogue 8.2. Element number 701: Number of days with snow cover.....	119
Station catalogue 8.3. Element number 702: Number of days with fog (vis. < 1km).....	123
Station catalogue 8.4. Element number 703: Number of days with thunder.....	127

List of figures showing variation in daily relative humidity:

Figure 5.1.1. Station 06180 Københavns Lufthavn, whole year.....	73
Figure 5.1.2. Station 06060 Karup, whole year.....	73
Figure 5.1.3. Station 06180 Københavns Lufthavn, January.....	74
Figure 5.1.4. Station 06060 Karup, January	74
Figure 5.1.5. Station 06180 Københavns Lufthavn, July	75
Figure 5.1.6. Station 06060 Karup, July.....	75

1. Introduction

This report presents the observed air temperature, relative and absolute humidity, mean sea level atmospheric pressure, cloud cover, snow cover, snowfall, fog and thunder in Denmark on a monthly basis from up to 44 Danish stations. The observations mainly cover the climatological standard normal period 1961-1990, but some series covering periods of less than 30 years between 1961 and 1998 are also included.

Climatological standard normal periods are defined by the World Meteorological Organisation (WMO)'s Technical Regulations as “averages of climatological data computed for the following consecutive periods of 30 years: 1 January 1901 to 31 December 1930, 1 January 1931 to 31 December 1960, etc.”. Standard normal values are based on complete and homogeneous series of climatic variables. They are used for describing the average climate of a particular site. Standard normal values can thus be inter-compared from site to site and across national borders. Series shorter than 30 years and series not satisfactorily homogeneous must be referred to as *provisory* normal values.

This report contains climatological standard normals for the largest possible number of locations in Denmark. The number is limited by the opening and closing of DMI measuring stations and changes in observation schemes during 1961-1990. The number also differs for the different climate elements. For example, there are climatological standard normals from 31 stations for mean temperature, but from only one station for absolute humidity. “Geographical gaps” in the spatial distribution of the climatological standard normals have been filled with provisory normals where possible. *Provisory* because the periods are no longer the 30 years from 1961-1990. Some of these series are simply from stations opened after 1961.

Section 2 provides a general description of the Danish weather. The text is translated from pp 61-66 in “Vejr for enhver - Vejr, klima og miljø” - the book published in 1997 by DMI to celebrate DMI’s 125 years jubilee - and the content is excellently supported by the tables in this report.

Section 3 concerns the observations behind the normals and thus provides lists of station types, measuring methods and interpolation methods.

Sections 4-8 present the normal and extreme tables as well as additional information, and thus constitute the main part of this report. Each climate element has its own subsection. Each element is accompanied by a map showing the locations of the available normals, a table containing the *station catalogue* for the element (the numbers, names and position in geographical co-ordinates for the stations on the map, and the first and last year of the data series presented), the table of the 1961-1990 normals for the element, and lastly the table of any provisory normals for the element.

Tables of frost cycles, average first and last dates of frost, and average first and last dates for summer days are included as additional information. This information has been compiled for nine selected stations and is shown in the last subsections of section 4 (Air temperature).

Subsection 5.1 (Variation in daily relative humidity) contains six figures showing the daily variation in relative humidity for the two stations Copenhagen Airport (coastal) and Karup Airbase (inland) for the full year, the month of January and the month of July.

All the normal values, the monthly values behind the normal values, and the information in the station catalogues are contained in data files on the CD-ROM included (please refer to Appendix 2 for description of contents and format).

2. The Danish Weather

Between ocean and Continent

The Danish weather is extremely changeable. Denmark is situated in the path of the westerlies, an area characterised by fronts, extratropical cyclones and unsettled weather. At the same time the country is situated on the edge of the European Continent, where winters are cold and summers hot. Compared to other geographical areas on the same latitude, Denmark enjoys a relatively warm climate. This is due to the warm Gulf Stream that originates in the tropical ocean off the eastern coast of the USA. For comparison, Denmark is situated on the same latitude as Hudson Bay in Canada and Siberia in Russia, areas almost uninhabitable due to the short summers and very cold winters.

Denmark has a typical coastal climate with mild and humid weather in winter and cool and changeable weather in summer, and mean temperatures do not vary greatly between both seasons. However, the weather in Denmark is strongly influenced by the country's proximity to both the sea and the European Continent. This means that the weather changes according to the prevailing wind direction. The westerly wind from the sea typically brings relatively homogeneous weather both summer and winter: mild weather in winter, cool weather during summer, always accompanied by clouds, often with rain or showers. If the wind comes from the east or south the weather in Denmark will tend to resemble that currently prevailing on the Continent: Hot and sunny during summer, and cold during winter. When describing the Danish weather the wind direction and the season are therefore crucial factors.

The westerly wind

As the wind in Denmark is predominantly westerly, the depressions with their windy and rainy weather normally move from the west in a direction north of Denmark following different tracks. Summer and winter such weather brings the depressions and their associated frontal systems close by Denmark - one by one. The passage of fronts with continued rain is therefore followed by areas with showers in the cold air behind the front. During winter the precipitation of the fronts will often begin as snow if the previous weather has been cold with frost. As the depressions often follow each other like pearls on a string or in "families", the weather in these situations will often repeat itself at intervals of one or two days, and the weather type itself can last from a few days up to several weeks.

The passage of the extratropical cyclones is accompanied by a wind - often a strong wind - on the south side of the low. This is normally strongest after the passage of the front when the cold air has arrived. Most gales occur in autumn and early winter when the temperature difference between still warm southern Europe and rapidly cooling Scandinavia is greatest.

During summer a change in the weather to a westerly wind will normally mean a drop in temperature during passage of the cold front, often followed by quite humid weather with rain or showers. During winter, a change to a westerly wind will often be preceded by cold and maybe frosty weather. When the cold front passes, the air from the ocean will in fact be warmer (being heated by the ocean) than the air over land. The temperature thus rises, even though a cold front is said to be passing! Only if the air behind the front is really cold, such as when it comes from the north or north east, will the passing of a cold front during winter mean colder weather.

Anticyclones (highs)

If the extratropical cyclones from the west steer well clear of Denmark, periods of relatively settled anticyclone weather will ensue. During summer this means continued heating of the land, resulting in increasingly hotter temperatures. But in the presence of just a light breeze from the sea, a cover of very thin cloud

- so-called stratocumulus - often forms at low altitude, shielding the sun and perhaps ruining an otherwise perfect day for going to the beach. For Denmark to experience hot and dry summer weather the air must preferably come from the continent where it is normally hot and dry during the summer. Highs during winter normally mean cold, clear and calm weather. However, because of the substantial radiation, especially at night, fog may easily be formed which is not readily dispersed during the day. Being very low during winter the sun fails to heat the land sufficiently during the short day to make the temperature rise. In fact in clear weather during the months of December and January there will be a radiative deficit day and night, also at noon. This means that the temperature in clear weather will continually drop, and in extreme situations fall to below -25 °C inland away from coastal areas. This is rather unusual though and requires the air at the same time to be deprived of any kind of heat from elsewhere. The presence of snow cover is of great importance in this connection, as this increases the albedo and acts as insulation at the same time. Without snow cover the temperature will only rarely fall below -10 °C because of the heat supplied from the earth's surface. Finally, the weather must be totally calm to reach extremely low temperatures, as even a light breeze will bring in milder and more humid air from the sea which surrounds Denmark.

The easterly wind

In Denmark the easterly wind is not as frequent as the westerly, as it is a sign of the inverse of the normal distribution of lows and highs, namely lows to the south and highs to the north. In this situation the weather will be subject to considerable continental influence, the air originating from the great continental land mass to the east. This means cold weather during winter and warm weather during summer. The easterly wind is especially common during late winter or during spring, at which time the cold continental winter-high over Europe has often been dissolved while the similar high over Scandinavia or Russia is still intact. This weather situation is quite stable and may produce cold and windy weather for days or weeks, and thus prolong the cold of winter far into the spring.

Especially early in winter, however, the cold easterly wind is partly heated by the relatively warm waters of the Baltic, which may cause intensified precipitation and snow showers in the Baltic Sea, particularly on Bornholm and Lolland/Falster.

The southerly wind

As with air arriving from the east, air reaching Denmark from the south is, of continental origin. This causes cold during winter and heat during summer. But coming from the south the air will often be moist and be accompanied by haze or fog. During summer the moisture input may cause heavy showers, possibly with thunder. However, this is fairly rare as thunder will most frequently be associated with fronts - and especially cold fronts. Moist air from the south preceding the passage of a cold front means good conditions for thunderstorms. A prolonged heat wave is often terminated by just such a thunder cold front and followed by a change to cooler weather.

The northerly wind

North is the least frequent wind direction in Denmark. While air from the polar regions is generally cold and dry, it makes a great difference whether the air comes from the north west or from the north east. As the north-westerly wind comes from the sea it may be regarded as a colder and drier version of the westerly wind. The north-westerly wind will often only provide few showers and little precipitation, and because of the effect of the Norwegian Mountains it brings dry and sunny weather, particularly to northern Jutland, although this effect may extend as far as Copenhagen. In these situations there will often be showers in south and west Jutland.

By comparison, air from the north and north east more closely resembles a cold and dry version of the typical easterly wind. North-easterly is thus the coldest wind direction in Denmark, and if very cold air from Sweden moves out over, say, the Kattegat, exceptionally heavy showers may form which may lead to pro-



longed local snowfall. These showers - often named “Kattegat showers” - become heavier the further the air moves over the comparatively warm water.

3. Observations and methods

3.1 The meteorological day

The ‘meteorological day’ starts at 06:00 hours UTC (GMT) in the morning and ends at 06:00 hours UTC the following day. 06:00 hours UTC is 07:00 hours Danish Winter Time (or Danish Normal Time) and 08:00 hours Danish Summer Time.

In this report, an event occurring during a meteorological day is always assigned to the date on which the meteorological day ends. The ‘meteorological month’ thus starts at 06:00 hours UTC on the first and ends at 06:00 UTC on the first of the following month. The date of the maximum temperature for March could thus be listed as April 1 if the maximum was reached during the afternoon of March 31.

3.2 The stations

This report presents the monthly values of observations from three different types of observation station.

- **Synoptical station:** Observations of weather, cloud cover, visibility, snow cover, temperature, relative humidity etc. at 00:00, 03:00, 06:00, 09:00, 12:00, 15:00, 18:00 and 21:00 hours UTC. Synoptical stations all over the world follow the same observation hours and guidelines. Different kinds of synoptical stations operate with different levels of manning and automation determining how many of the listed hours have manual or automatic (or any) observations. Danish synoptical stations start with the number 06.
- **Manual climatological station:** Observations of weather, cloud cover, visibility, snow cover, temperature, relative humidity etc. at 08:00, 14:00 and 21:00 hours DNT (Danish Normal Time).
- **Automatic climatological station:** Automatically registered measurements of temperature, relative humidity etc. every hour.

For all types of stations, temperature and relative humidity are measured using a louvered Stevenson screen at 2 m above ground level.

At synoptical and manual climatological stations cloud cover is estimated on a scale of 0 to 8, where 0 means completely cloudless and 8 overcast. The present and past weather is stated verbally according to given guidelines; there are codes for showers, snow, thunder, fog etc.

Barometric pressure is reduced to mean sea level.

3.3 The monthly values

Appendix 1 contains a table listing the various climate elements referred to in this report, including the methods by which the monthly values are computed from the daily values (e.g. the monthly value for ‘average maximum temperature’ is computed as the *mean* of the daily maximum temperatures). Apart from this, the criteria for computing the monthly values of mean temperature and mean cloud cover from the actual observations are listed below. These exemplify the greatest differences between computation of monthly values from the different station types.

Mean temperature (the monthly mean is the mean of the daily mean)

- **Synoptical stations:** The daily mean is the mean of the temperature observations for the day when there are at least four observations and a maximum of two consecutive missing observations. In other cases the mean is computed as (absolute max. + absolute min.)/2.
- **Manual climatological stations:** When all three daily observations are present the daily mean is computed therefrom by means of a formula which corrects for the fact that the observations are during daytime only (the correction formula is described in the 1983 DMI Meteorological Yearbook). In other cases the mean is computed as (absolute max. + absolute min.)/2.
- **Automatic climatological stations:** The daily mean is the mean of the temperature observations for the day when there are a maximum of three consecutive missing observations. In other cases the mean is computed as (absolute max. + absolute min.)/2.

Mean cloud cover (the monthly mean is the mean of the daily mean)

- **Synoptical stations:** The daily mean is the mean of the cloud cover observations for the day computed as a percentage of 8/8.
- **Manual climatological stations:** The daily mean is the mean of the cloud cover observations for the day computed as a percentage of 8/8.

3.4 Replacement of erroneous or missing values

All the 937 series of this report start their first year with January and end their last year with December and are consecutive in between. Any gaps in the original series have been filled and erroneous values or values based on too few days have been replaced. Wherever possible this has been done using the values from neighbouring stations - if necessary after adjusting the values according to a linear relationship between the climate elements of the stations in question. When no adequate neighbouring values were available the gaps were simply filled with the mean monthly value for the series.

DMI maintains information on the origin of every single monthly value in all of the series.

3.5 Homogeneity of the series

Temporal and spatial homogeneity of observations is critical to any kind of analysis. The homogeneity of a series requires the local measurement to have been carried out with the same type of instrument and according to instructions unchanged over time. For spatial homogeneity the individual instruments must also be calibrated in the same way as their neighbours.

Inhomogeneity occurs when one or more factors change during the observation period.

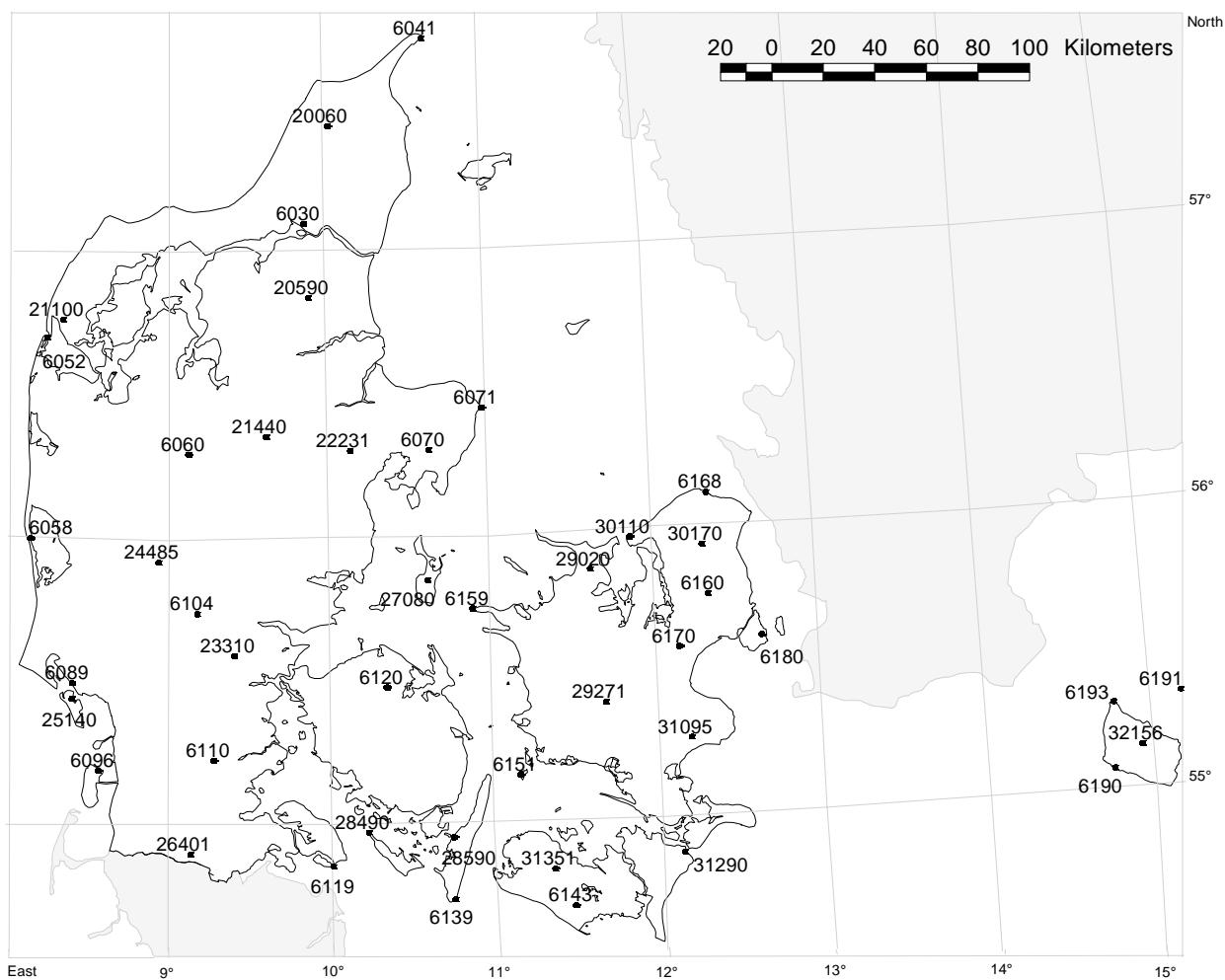
Changes in the instrumentation set-up i.e. the introduction of automatic equipment will not necessarily lead to abrupt inhomogeneity, but many changes do. The relocation of a station can also have an effect. The same applies to changes in observers, especially with regard to visual (subjective) observations like the judgement of cloud cover. When one or more factors change gradually, the series will show a non-natural trend in observations.

Since 1961 both abrupt and gradual changes have occurred at the Danish observation sites, but not all these changes are likely to have significantly affected the homogeneity of the series.

To achieve an acceptable level of homogeneity all the series have been plotted as time series for visual scrutiny of developments within the series. The time series have also been visually compared with the time series for the same climate element from other stations. Some series showed up inhomogeneous under this scrutiny. These series have been omitted from this report - or truncated and adjusted - when the station history and the size, shape or form of the inhomogeneities indicated that the inhomogeneities were indeed artificial. The humidity series (absolute and relative humidity) were often adjusted and/or truncated in this manner.

4. Air temperature

4.1 Mean temperature



Map 4.1. Stations with mean temperature normals. See station catalogue 4.1.

The warmest locations in Denmark are situated on the west coast of Jutland and along the coasts of the islands south of Fyn. The coldest are the inland locations of Jutland.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	101	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	101	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	101	THYBORØN	56	42	N	8	13	E	2	1961	1990
06058	101	HVIDE SANDE	56	0	N	8	8	E	3	1990	1997
06060	101	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	101	FSN TIRSTRUP	56	18	N	10	37	E	23	1979	1997
06071	101	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	101	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1961	1990
06096	101	RØMØ/JUVRE	55	11	N	8	34	E	4	1983	1997
06104	101	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	101	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	101	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	101	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	101	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06143	101	LOLLAND FALSTER AIRPORT	54	42	N	11	27	E	5	1985	1997
06151	101	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	101	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	101	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06168	101	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	101	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	101	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	101	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	101	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
06193	101	HAMMER ODDE FYR	55	18	N	14	47	E	11	1961	1990
20060	101	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1961	1990
20590	101	SKØRPING	56	50	N	9	53	E	62	1961	1990
21100	101	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	101	TANGE	56	21	N	9	36	E	13	1961	1990
22231	101	ØDUM II	56	18	N	10	8	E	61	1961	1990
23310	101	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	101	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	101	NORDBY	55	26	N	8	24	E	6	1961	1990
26401	101	STORE JYNDEVAD II	54	54	N	9	7	E	15	1987	1997
27080	101	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	101	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	101	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	101	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
29271	101	ALSTEDGÅRD II	55	24	N	11	40	E	45	1987	1997
30110	101	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	101	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1990
31095	101	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	101	NÆSGÅRD	54	52	N	12	7	E	15	1961	1990
31351	101	ABED II	54	50	N	11	20	E	7	1987	1998
32156	101	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 4.1. Element number 101: Mean temperature.

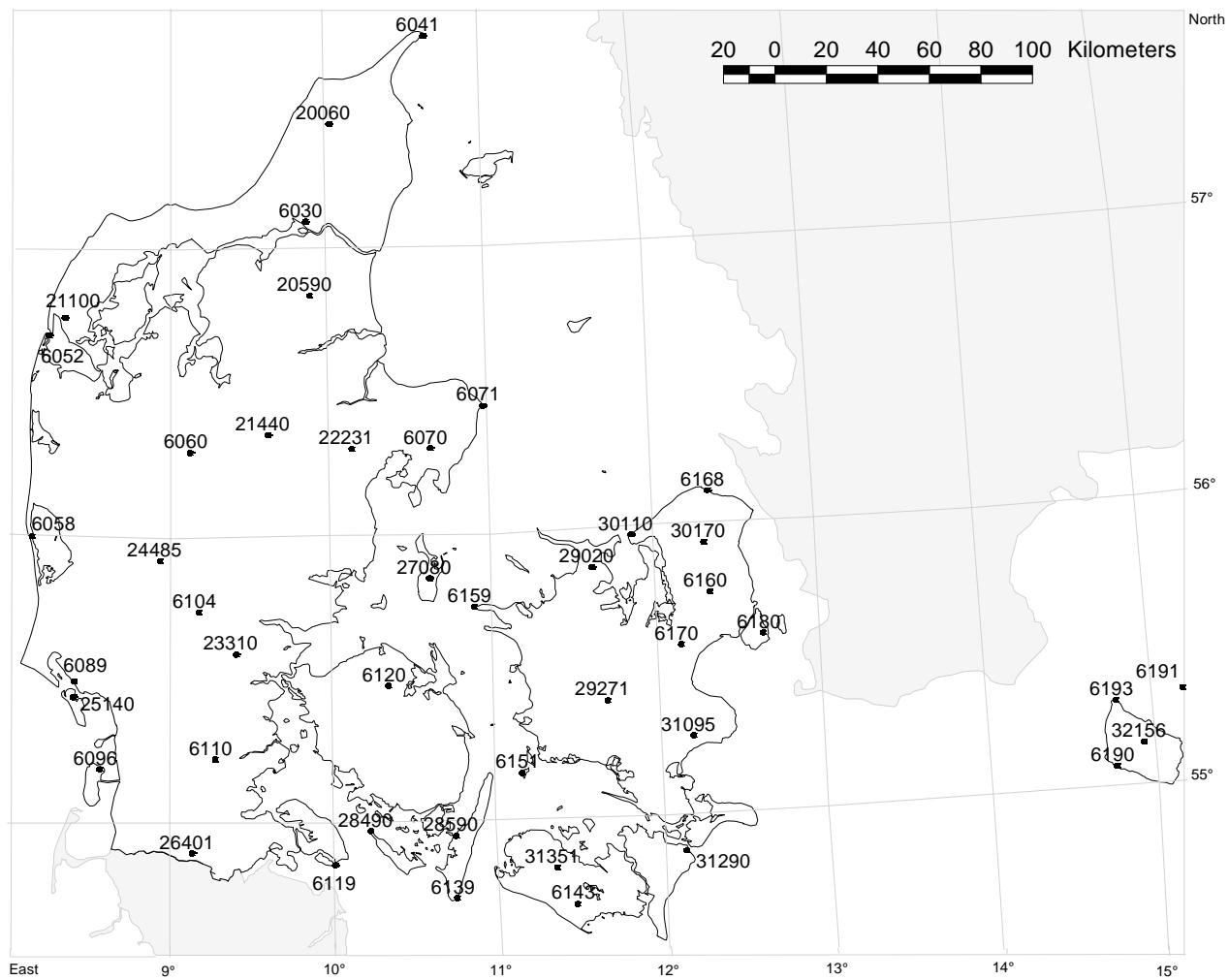
Table 4.1.1. Mean temperature (°C). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	-0,4	-0,4	1,9	5,6	10,7	14,4	15,7	15,5	12,3	8,9	4,3	1,3	7,5
06041 SKAGEN FYR	0,6	0,1	2,0	5,2	10,2	14,3	15,8	15,8	13,0	9,8	5,6	2,6	7,9
06052 THYBORØN	1,4	1,1	2,8	5,9	10,6	14,0	15,6	16,0	13,7	10,4	6,4	3,4	8,4
06060 FSN KARUP	-0,2	-0,1	2,1	5,7	10,8	14,1	15,4	15,2	12,3	8,9	4,3	1,3	7,5
06071 FORNÆS FYR	0,6	0,3	2,1	5,4	10,3	14,4	15,8	15,8	13,0	9,6	5,4	2,3	7,9
06089 SÆDENSTRAND FYR	0,7	0,7	2,7	6,1	11,1	14,4	15,9	16,1	13,5	10,0	5,6	2,4	8,3
06110 FSN SKRYDSTRUP	-0,1	0,0	2,3	5,7	10,6	14,0	15,2	15,2	12,4	9,0	4,6	1,4	7,5
06119 KEGNÆS FYR	0,8	0,5	2,3	5,7	10,5	14,5	15,9	16,3	13,7	10,2	5,8	2,6	8,2
06120 ODENSE LUFTHAVN	0,3	0,3	2,6	6,2	11,4	15,0	16,1	16,1	13,0	9,4	5,0	1,9	8,1
06139 KELDSNOR FYR	0,8	0,5	2,3	5,6	10,5	14,7	16,3	16,6	14,0	10,4	6,0	2,7	8,4
06151 OMØ FYR	0,7	0,4	2,2	5,6	10,6	14,8	16,4	16,6	13,9	10,3	6,0	2,7	8,4
06159 RØSNÆS FYR	0,8	0,4	2,1	5,4	10,5	14,5	16,1	16,3	13,7	10,2	6,1	2,8	8,2
06160 FSN VÆRLØSE	-0,4	-0,5	2,0	5,9	11,1	15,0	16,2	15,9	12,6	9,0	4,5	1,2	7,7
06180 KØBENHAVNS LUFTHAVN	0,1	-0,1	2,0	5,7	10,9	15,1	16,4	16,3	13,2	9,5	5,1	1,8	8,0
06190 BORNHOLMS LUFTHAVN	0,1	-0,3	1,5	4,9	10,1	14,6	16,6	16,7	13,5	9,5	5,4	2,0	7,9
06191 CHRISTIANSØ FYR	1,2	0,6	1,8	4,1	8,3	13,5	16,3	16,8	13,9	10,3	6,2	3,0	8,0
06193 HAMMER ODDE FYR	0,8	0,4	1,8	4,6	9,1	13,9	16,3	16,7	13,7	10,1	5,9	2,7	8,0
20060 HJØRRING VANDVÆRK	-0,4	-0,8	1,6	5,3	10,6	14,2	15,4	15,1	11,9	8,4	4,1	1,3	7,2
20590 SKØRPING	-0,4	-0,5	1,8	5,4	10,5	13,9	15,2	15,0	11,8	8,4	4,0	1,1	7,2
21100 VESTERVIG	0,6	0,4	2,3	5,6	10,4	13,7	15,1	15,4	12,7	9,5	5,3	2,5	7,8
21440 TANGE	-0,1	-0,2	2,1	5,8	11,0	14,4	15,6	15,2	11,8	8,5	4,3	1,4	7,5
22231 ØDUM II	-0,4	-0,5	1,8	5,5	10,7	14,0	15,1	15,1	12,0	8,5	4,2	1,2	7,3
23310 BRAKKER S	-0,2	-0,2	2,0	5,8	10,8	14,0	15,1	15,3	12,2	8,8	4,4	1,4	7,5
25140 NORDBY	0,9	0,7	2,7	6,2	11,2	14,5	15,8	16,1	13,5	9,9	5,7	2,6	8,3
27080 TRANEBJERG	0,6	0,3	2,4	6,1	11,1	14,8	16,1	16,2	13,3	9,7	5,4	2,3	8,2
28490 SKJOLDNÆS FYR	0,8	0,5	2,3	5,9	11,0	14,8	16,2	16,6	13,9	10,3	5,9	2,7	8,4
28590 RUDKØBING	0,4	0,4	2,5	6,2	11,2	14,8	16,1	16,3	13,5	9,9	5,5	2,3	8,2
29020 KOLLEKOLLE	-0,1	-0,2	2,0	5,8	11,2	14,8	16,0	16,1	12,9	9,2	4,8	1,7	7,9
30110 SPODSBJERG FYR	0,0	-0,2	1,9	5,7	11,1	14,9	16,3	16,3	13,3	9,6	5,2	1,9	8,0
30170 LILLE DYREHAVEGÅRD	-0,4	-0,5	1,9	6,0	11,4	15,0	16,2	16,0	12,7	9,0	4,5	1,3	7,7
31290 NÆSGÅRD	0,3	0,2	2,2	5,7	10,5	14,5	16,1	16,2	13,2	9,6	5,1	1,9	7,9

Table 4.1.2. Mean temperature (°C). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06058 HVIDE SANDE, 1990-97	2,0	1,7	3,4	6,2	10,2	13,4	16,4	17,1	13,1	9,5	5,1	2,7	8,4
06070 FSN TIRSTRUP, 1979-97	0,2	0,1	2,3	5,8	10,8	14,1	16,2	15,9	12,1	8,7	4,4	1,8	7,7
06096 RØMØ/JUVRE, 1983-97	1,2	0,8	2,9	6,5	10,9	13,8	16,3	16,4	13,0	9,7	4,9	2,6	8,2
06104 BILLUND LUFTHAVN, 1970-97	0,0	0,0	2,3	5,7	10,8	13,8	15,7	15,5	11,8	8,3	4,2	1,6	7,5
06143 LOLLAND FALSTER AIRPORT, 1985-97	0,4	0,5	2,7	6,5	11,2	14,3	16,8	16,7	12,8	9,2	4,6	2,2	8,2
06168 NAKKEHOVED FYR, 1987-97	1,0	1,4	2,9	6,5	11,1	14,5	16,9	16,9	12,8	8,9	4,4	2,1	8,3
06170 ROSKILDE LUFTHAVN, 1974-97	0,1	-0,1	2,4	6,2	11,3	14,8	16,8	16,7	12,6	8,8	4,5	1,6	8,0
24485 DØVLING, 1975-97	0,3	0,0	2,4	5,9	11,0	13,7	15,5	15,4	11,7	8,4	4,4	1,6	7,5
26401 STORE JYNDEVAD II, 1987-97	1,4	1,8	3,4	6,9	11,0	14,0	16,4	16,3	12,7	8,8	4,4	2,2	8,3
29271 ALSTEDGÅRD II, 1987-97	0,8	1,3	2,7	6,6	11,0	14,2	16,7	16,7	12,6	8,6	4,2	1,8	8,1
31095 VIVEDE OVERDREV, 1973-91	0,4	0,0	2,4	5,7	10,8	14,3	16,1	16,0	12,7	8,9	4,7	2,0	7,8
31351 Abed II, 1987-98	1,3	1,7	3,2	6,9	11,3	14,4	16,6	16,8	13,0	9,0	4,4	2,1	8,4
32156 ØSTERLARS SV, 1985-97	0,1	-0,3	1,7	5,3	10,0	13,4	16,0	16,2	12,1	8,6	4,1	1,8	7,4

4.2 Average maximum temperature



Map 4.2. Stations with average maximum temperature normals. See station catalogue 4.2.

During summer the inland stations at airports and airbases are the hottest on a monthly average and the coastal stations at lighthouses are coolest. During winter the coastal stations are the warmest.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	111	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	111	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	111	THYBORØN	56	42	N	8	13	E	2	1961	1990
06058	111	HVIDE SANDE	56	0	N	8	8	E	3	1990	1997
06060	111	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	111	FSN TIRSTRUP	56	18	N	10	37	E	23	1979	1997
06071	111	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	111	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1961	1990
06096	111	RØMØ/JUVRE	55	11	N	8	34	E	4	1983	1997
06104	111	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	111	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	111	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	111	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	111	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06143	111	LOLLAND FALSTER AIRPORT	54	42	N	11	27	E	5	1985	1997
06151	111	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	111	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	111	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06168	111	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	111	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	111	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	111	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	111	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
06193	111	HAMMER ODDE FYR	55	18	N	14	47	E	11	1961	1990
20060	111	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1961	1990
20590	111	SKØRPING	56	50	N	9	53	E	62	1961	1990
21100	111	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	111	TANGE	56	21	N	9	36	E	13	1961	1990
22231	111	ØDUM II	56	18	N	10	8	E	61	1961	1990
23310	111	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	111	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	111	NORDBY	55	26	N	8	24	E	6	1961	1990
26401	111	STORE JYNDEVAD II	54	54	N	9	7	E	15	1987	1997
27080	111	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	111	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	111	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	111	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
29271	111	ALSTEDGÅRD II	55	24	N	11	40	E	45	1987	1997
30110	111	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	111	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1990
31095	111	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	111	NÆSGÅRD	54	52	N	12	7	E	15	1961	1990
31351	111	ABED II	54	50	N	11	20	E	7	1987	1998
32156	111	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 4.2. Element number 111: Average maximum temperature.

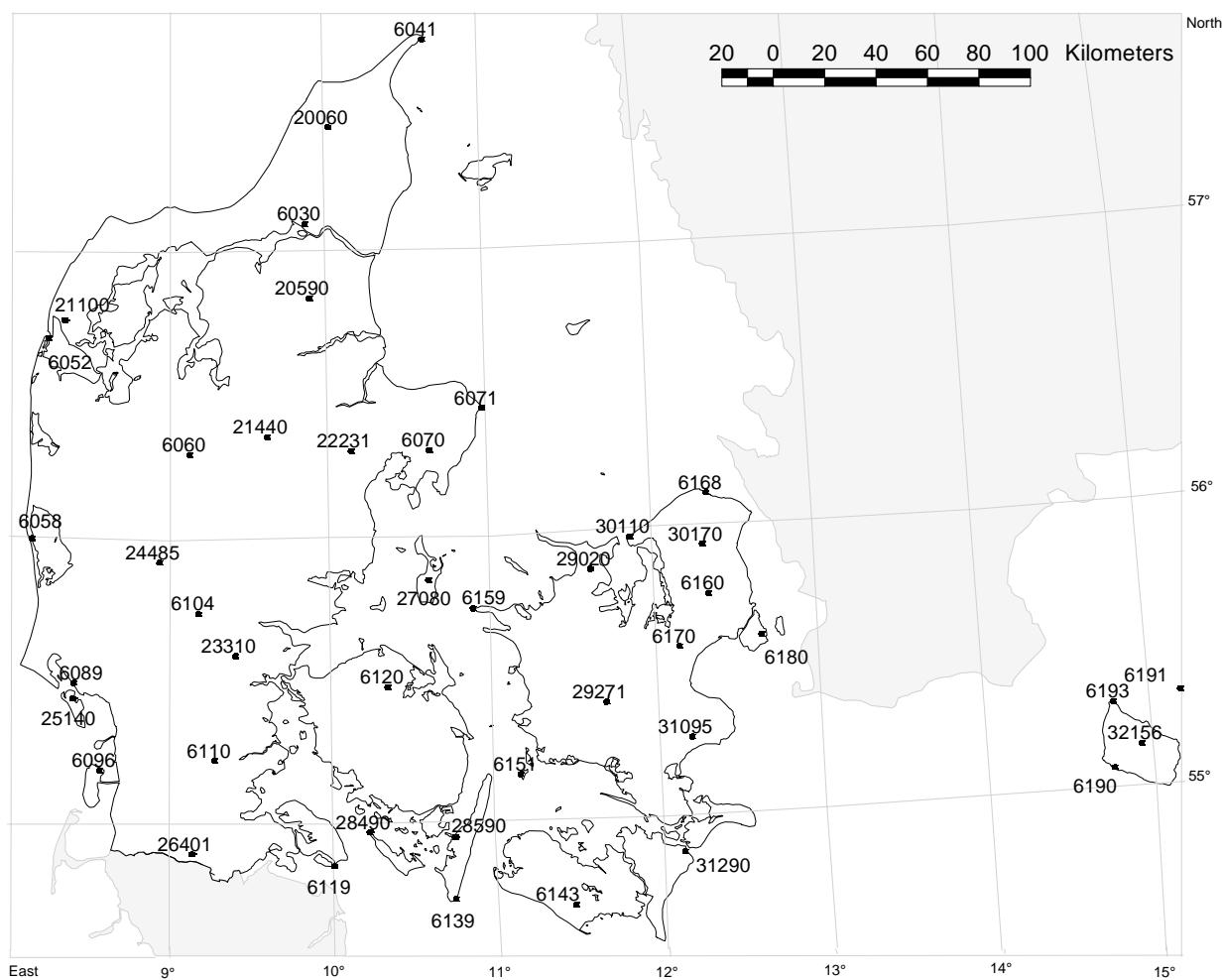
Table 4.2.1. Average maximum temperature (°C). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	1,7	2,0	4,9	9,8	15,2	19,0	20,1	20,0	16,2	11,9	6,8	3,4	10,9
06041 SKAGEN FYR	2,2	1,9	4,1	7,9	13,2	17,5	18,9	18,7	15,5	11,7	7,3	4,2	10,3
06052 THYBORØN	2,9	2,6	4,6	8,3	13,3	16,6	18,0	18,6	15,8	12,2	7,9	4,9	10,5
06060 FSN KARUP	2,0	2,4	5,3	10,0	15,4	18,8	19,9	20,1	16,3	12,2	6,9	3,6	11,1
06071 FORNÆS FYR	2,2	2,1	4,4	8,3	13,3	17,9	19,5	19,4	16,1	12,0	7,4	4,1	10,6
06089 SÆDENSTRAND FYR	2,5	2,7	5,1	9,5	15,0	18,2	19,2	19,8	16,6	12,6	7,6	4,2	11,1
06110 FSN SKRYDSTRUP	2,1	2,4	5,2	9,9	14,9	18,4	19,5	19,9	16,5	12,2	7,1	3,7	11,0
06119 KEGNÆS FYR	2,3	2,2	4,4	8,5	13,4	17,6	18,8	19,2	16,1	12,1	7,5	4,2	10,5
06120 ODENSE LUFTHAVN	2,3	2,5	5,5	10,2	15,6	19,4	20,5	20,7	17,0	12,5	7,3	3,9	11,4
06139 KELDSNOR FYR	2,2	2,1	4,3	8,6	13,6	18,0	19,6	19,8	16,6	12,3	7,6	4,2	10,7
06151 OMØ FYR	2,0	1,8	3,9	7,9	13,4	17,4	18,8	19,0	15,9	11,8	7,3	4,0	10,3
06159 RØSNÆS FYR	2,0	1,6	3,6	7,4	13,0	16,9	18,3	18,5	15,5	11,6	7,3	4,0	10,0
06160 FSN VÆRLØSE	1,6	1,9	5,0	10,0	15,6	19,5	20,5	20,5	16,6	12,0	6,8	3,3	11,1
06180 KØBENHAVNS LUFTHAVN	1,9	2,0	4,8	9,5	15,0	19,2	20,4	20,3	16,7	12,1	7,1	3,7	11,1
06190 BORNHOLMS LUFTHAVN	1,9	1,7	3,7	8,0	13,8	18,0	19,5	19,7	16,1	11,9	7,3	3,8	10,4
06191 CHRISTIANSØ FYR	2,4	1,7	3,1	5,9	10,4	15,5	18,2	18,7	15,5	11,7	7,4	4,3	9,6
06193 HAMMER ODDE FYR	2,2	1,8	3,7	7,2	12,2	17,1	19,2	19,4	16,1	11,8	7,3	4,1	10,2
20060 HJØRRING VANDVÆRK	1,6	1,6	4,5	9,2	14,9	18,6	19,8	19,8	15,9	11,6	6,6	3,3	10,6
20590 SKØRPING	1,6	1,9	4,7	9,6	14,9	18,4	19,4	19,2	15,4	11,3	6,5	3,2	10,5
21100 VESTERVIG	2,4	2,6	5,0	9,1	14,4	17,8	18,9	19,3	16,0	12,1	7,4	4,2	10,8
21440 TANGE	1,9	2,4	5,4	10,2	15,6	19,3	20,4	20,4	16,6	12,1	6,9	3,5	11,2
22231 ØDUM II	1,6	1,8	4,6	9,5	14,9	18,6	19,8	20,0	16,1	11,5	6,6	3,2	10,7
23310 BRAKKER S	1,8	2,1	4,9	9,8	15,0	18,5	19,8	20,2	16,3	11,9	6,8	3,4	10,9
25140 NORDBY	2,6	2,8	5,2	9,6	14,9	18,3	19,4	19,8	16,7	12,6	7,8	4,4	11,2
27080 TRANEBJERG	2,1	2,1	4,7	9,3	14,8	18,7	20,0	20,0	16,4	12,0	7,2	3,9	10,9
28490 SKJOLDNÆS FYR	2,2	2,1	4,4	8,9	14,3	18,4	19,7	20,3	16,7	12,3	7,5	4,2	10,9
28590 RUDKØBING	2,1	2,2	5,0	9,6	15,1	18,4	19,6	19,6	16,2	12,0	7,2	3,8	10,9
29020 KOLLEKOLLE	1,6	1,7	4,6	9,5	15,2	18,9	20,2	20,3	16,4	11,8	6,7	3,3	10,8
30110 SPODSBJERG FYR	1,6	1,7	4,3	8,8	14,6	18,2	19,3	19,4	16,0	11,7	6,9	3,5	10,5
30170 LILLE DYREHAVEGÅRD	1,5	2,1	5,3	10,5	16,4	19,8	20,6	20,8	16,7	12,2	6,8	3,2	11,3
31290 NÆSGÅRD	1,9	2,1	4,9	9,2	14,1	18,5	20,1	20,1	16,7	12,2	7,1	3,7	10,9

Table 4.2.2. Average maximum temperature (°C). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06058 HVIDE SANDE, 1990-97	3,5	3,1	5,2	8,7	12,8	15,9	19,0	19,6	15,2	11,4	6,7	4,5	10,5
06070 FSN TIRSTRUP, 1979-97	2,4	2,5	5,4	10,5	15,8	18,9	21,2	20,8	16,3	11,8	6,9	4,1	11,4
06096 RØMØ/JUVRE, 1983-97	3,0	2,9	5,4	9,9	14,6	16,9	19,7	19,8	15,9	12,2	7,1	4,5	11,0
06104 BILLUND LUFTHAVN, 1970-97	2,1	2,3	5,2	10,1	15,5	18,6	20,4	20,6	16,0	11,6	6,7	3,8	11,1
06143 LOLAND FALSTER AIRPORT, 1985-97	2,2	2,5	5,4	10,2	15,3	18,2	20,9	21,0	16,2	12,0	6,6	4,0	11,2
06168 NAKKEHOVED FYR, 1987-97	2,8	3,3	5,2	9,8	14,6	17,5	19,8	19,9	15,3	11,0	6,2	3,8	10,8
06170 ROSKILDE LUFTHAVN, 1974-97	2,2	2,1	5,2	10,1	15,4	19,0	21,0	21,1	16,5	11,7	6,7	3,7	11,2
24485 DØVLING, 1975-97	3,0	2,9	5,8	10,5	15,9	18,6	20,5	21,0	16,5	12,3	7,4	4,2	11,5
26401 STORE JYNDEVAD II, 1987-97	3,5	4,1	6,5	11,4	15,7	18,6	21,3	21,5	17,1	12,4	7,1	4,4	12,0
29271 ALSTEDGÅRD II, 1987-97	2,8	3,3	5,5	10,8	15,6	18,5	21,4	21,7	16,4	11,5	6,3	3,8	11,5
31095 VIVEDE OVERDREV, 1973-91	2,3	2,1	5,1	9,7	15,1	18,9	21,0	21,0	16,8	11,8	6,8	3,9	11,2
31351 ABED II, 1987-98	3,1	3,7	5,9	10,9	15,5	18,3	20,9	21,4	16,5	11,8	6,4	4,0	11,5
32156 ØSTERLARS SV, 1985-97	2,0	1,7	4,0	8,9	14,1	17,6	20,2	20,4	15,2	11,1	6,0	3,6	10,4

4.3 Absolute maximum temperature



Map 4.3. Stations with absolute maximum temperature. See station catalogue 4.3.

The highest temperature measured among the 31 stations in the 1961-1990 climatological standard period table is 35.2 °C. This was measured at Sædenstrand Lighthouse (station 06089) during the afternoon of August 10, 1975 (and is thus listed for the meteorological day August 11). Those August days were extremely hot - for example, the overall record for Denmark, 36.4 °C, was measured at Holstebro on August 10, 1975. The table also shows that it is possible to reach more than 20 °C even in mid October.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	112	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	112	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	112	THYBORØN	56	42	N	8	13	E	2	1961	1990
06058	112	HVIDE SANDE	56	0	N	8	8	E	3	1990	1997
06060	112	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	112	FSN TIRSTRUP	56	18	N	10	37	E	23	1979	1997
06071	112	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	112	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1961	1990
06096	112	RØMØ/JUVRE	55	11	N	8	34	E	4	1983	1997
06104	112	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	112	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	112	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	112	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	112	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06143	112	LOLLAND FALSTER AIRPORT	54	42	N	11	27	E	5	1985	1997
06151	112	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	112	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	112	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06168	112	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	112	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	112	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	112	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	112	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
06193	112	HAMMER ODDE FYR	55	18	N	14	47	E	11	1961	1990
20060	112	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1961	1990
20590	112	SKØRPING	56	50	N	9	53	E	62	1961	1990
21100	112	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	112	TANGE	56	21	N	9	36	E	13	1961	1990
22231	112	ØDUM II	56	18	N	10	8	E	61	1961	1990
23310	112	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	112	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	112	NORDBY	55	26	N	8	24	E	6	1961	1990
26401	112	STORE JYNDEVAD II	54	54	N	9	7	E	15	1987	1997
27080	112	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	112	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	112	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	112	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
29271	112	ALSTEDGÅRD II	55	24	N	11	40	E	45	1987	1997
30110	112	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	112	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1990
31095	112	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	112	NÆSGÅRD	54	52	N	12	7	E	15	1961	1990
32156	112	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 4.3. Element number 112: Absolute maximum temperature.

Table 4.3.1. Absolute maximum temperature (°C). Climatological extreme, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	10,5	11,5	18,8	23,2	27,5	30,9	30,6	34,4	26,7	22,3	15,2	11,2	34,4
Date	16/01	24/02	19/03	30/04	26/05	6/06	9/07	11/08	13/09	3/10	3/11	6/12	11/08
Year	1989	1990	1990	1987	1989	1982	1989	1975	1969	1985	1984	1986	1975
06041 SKAGEN FYR	10,0	11,5	15,7	16,5	22,4	27,1	26,8	29,0	22,3	19,0	13,2	12,4	29,0
Date	7/01	24/02	29/03	15/04	30/05	28/06	5/07	10/08	10/09	2/10	2/11	3/12	10/08
Year	1983	1990	1989	1989	1964	1988	1971	1975	1968	1985	1982	1962	1975
06052 THYBORØN	9,6	9,6	16,8	19,0	25,6	28,8	28,0	31,8	23,8	20,2	14,4	11,4	31,8
Date	1/02	8/02	19/03	19/04	27/05	5/06	7/07	10/08	11/09	4/10	3/11	6/12	10/08
Year	1990	1990	1990	1964	1985	1982	1973	1975	1968	1985	1984	1986	1975
06060 FSN KARUP	11,3	12,6	22,2	24,9	28,3	30,8	31,9	34,6	27,8	23,0	16,0	12,3	34,6
Date	16/01	26/02	19/03	30/04	28/05	20/06	8/07	11/08	2/09	14/10	3/11	4/12	11/08
Year	1990	1961	1990	1987	1985	1970	1989	1975	1983	1978	1984	1986	1975
06071 FORNÆS FYR	11,2	11,9	18,4	20,1	23,2	27,3	28,0	30,4	24,0	22,1	14,6	12,0	30,4
Date	16/01	21/02	30/03	29/04	25/05	23/06	22/07	12/08	6/09	2/10	3/11	20/12	12/08
Year	1990	1961	1965	1987	1977	1970	1972	1975	1973	1985	1971	1980	1975
06089 SÆDENSTRAND FYR	9,2	10,9	17,3	23,4	29,1	32,3	32,8	35,2	29,8	22,0	13,8	10,4	35,2
Date	16/01	25/02	17/03	22/04	28/05	18/06	8/07	11/08	2/09	14/10	3/11	5/12	11/08
Year	1975	1961	1972	1968	1985	1968	1989	1975	1983	1978	1984	1986	1975
06110 FSN SKRYDSTRUP	11,2	12,7	19,7	24,2	27,0	29,8	29,8	33,3	27,1	24,0	17,3	11,9	33,3
Date	16/01	26/02	30/03	18/04	31/05	28/06	12/07	11/08	14/09	13/10	3/11	25/12	11/08
Year	1975	1961	1968	1964	1978	1973	1983	1975	1969	1978	1968	1977	1975
06119 KEGNÆS FYR	10,8	11,8	16,2	19,0	24,0	28,2	26,2	29,4	23,0	19,2	16,4	12,0	29,4
Date	3/01	22/02	1/04	23/04	20/05	28/06	28/07	13/08	4/09	5/10	3/11	25/12	13/08
Year	1988	1990	1990	1968	1980	1976	1983	1975	1975	1983	1968	1977	1975
06120 ODENSE LUFTHAVN	11,0	13,4	18,5	24,1	27,0	31,0	31,1	33,6	27,7	23,0	17,7	12,4	33,6
Date	3/01	22/02	19/03	22/04	1/06	3/06	8/07	12/08	4/09	13/10	3/11	24/12	12/08
Year	1988	1990	1990	1968	1978	1978	1989	1975	1975	1978	1968	1977	1975
06139 KELDSNOR FYR	9,6	11,0	16,2	19,6	23,0	27,7	28,2	30,8	25,0	19,4	15,3	11,6	30,8
Date	3/01	8/02	31/03	24/04	30/05	28/06	18/07	12/08	2/09	2/10	3/11	25/12	12/08
Year	1988	1990	1968	1968	1978	1976	1976	1975	1975	1982	1968	1977	1975
06151 OMØ FYR	9,3	9,8	13,6	20,6	23,5	27,2	30,0	31,6	25,6	17,5	13,5	11,6	31,6
Date	16/01	9/02	30/03	23/04	31/05	27/06	3/07	11/08	4/09	2/10	3/11	19/12	11/08
Year	1990	1990	1968	1968	1978	1961	1961	1975	1975	1982	1968	1967	1975
06159 RØSNÆS FYR	11,0	10,6	13,2	19,5	25,0	27,4	28,2	29,6	26,0	19,3	13,0	13,0	29,6
Date	9/01	8/02	18/03	15/04	12/05	18/06	1/08	3/08	2/09	7/10	2/11	29/12	3/08
Year	1981	1990	1972	1989	1981	1968	1969	1969	1983	1961	1968	1979	1969
06160 FSN VÆRLØSE	10,6	14,4	20,0	23,6	27,0	31,0	31,2	33,0	27,7	22,2	19,6	12,9	33,0
Date	7/01	22/02	31/03	23/04	1/06	3/06	9/07	11/08	2/09	3/10	3/11	25/12	11/08
Year	1983	1990	1968	1968	1979	1979	1989	1975	1975	1985	1984	1977	1975
06180 KØBENHAVNS LUFTHN.	10,4	12,6	19,2	22,3	26,4	29,5	29,7	31,1	26,2	20,4	15,4	12,4	31,1
Date	16/01	24/02	31/03	23/04	29/05	6/06	2/07	11/08	2/09	2/10	2/11	25/12	11/08
Year	1990	1990	1968	1968	1985	1982	1986	1975	1983	1985	1968	1977	1975
06190 BORNHOLMS LUFTHN.	8,3	9,7	13,5	22,1	27,2	30,0	30,4	31,7	27,9	19,1	15,7	9,6	31,7
Date	7/01	22/02	17/03	14/04	29/05	2/06	9/07	5/08	2/09	3/10	3/11	6/12	5/08
Year	1983	1990	1972	1989	1985	1979	1989	1963	1983	1984	1989	1986	1963
06191 CHRISTIANSØ FYR	9,7	11,4	14,4	15,7	21,5	25,6	26,0	29,1	23,7	20,0	14,8	10,6	29,1
Date	7/01	9/02	31/03	22/04	19/05	27/06	11/07	10/08	3/09	3/10	2/11	22/12	10/08
Year	1983	1990	1968	1968	1971	1976	1983	1975	1979	1985	1968	1989	1975
06193 HAMMER ODDE FYR	10,1	14,9	18,2	23,3	26,6	31,4	28,8	30,7	26,4	23,1	16,4	10,9	31,4
Date	3/01	22/02	25/03	1/05	13/05	14/06	19/07	2/08	13/09	5/10	1/11	5/12	14/06
Year	1988	1990	1968	1987	1964	1964	1967	1983	1969	1985	1968	1961	1964

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
20060 HJØRRING VANDVÆRK	10,1	11,3	17,9	22,2	27,4	30,2	29,4	33,1	25,4	21,5	13,4	11,2	33,1
Date	6/01	24/02	19/03	1/05	12/05	5/06	20/07	9/08	2/09	3/10	3/11	5/12	9/08
Year	1973	1990	1990	1987	1981	1982	1972	1975	1983	1985	1984	1986	1975
20590 SKØRPING	11,0	13,0	19,6	22,9	26,0	29,1	28,6	31,8	26,3	22,0	14,6	11,2	31,8
Date	7/01	24/02	19/03	30/04	2/05	6/06	27/07	11/08	12/09	3/10	3/11	6/12	11/08
Year	1983	1990	1990	1987	1966	1982	1989	1975	1969	1985	1984	1986	1975
21100 VESTERVIG	9,3	10,0	17,0	22,4	28,2	29,9	30,3	34,8	27,9	20,2	15,3	10,9	34,8
Date	16/01	25/02	19/03	17/04	28/05	28/06	7/07	11/08	2/09	4/10	3/11	5/12	11/08
Year	1975	1961	1990	1964	1985	1988	1973	1975	1983	1985	1984	1986	1975
21440 TANGE	11,6	12,4	19,3	22,7	26,8	30,9	31,6	33,5	26,1	23,2	15,1	11,8	33,5
Date	16/01	24/02	19/03	30/04	1/06	6/06	8/07	11/08	13/09	2/10	3/11	6/12	11/08
Year	1990	1990	1990	1987	1978	1982	1989	1975	1969	1985	1984	1986	1975
22231 ØDUM II	10,5	12,6	18,3	23,2	25,6	29,3	29,8	33,2	25,7	23,3	14,9	11,7	33,2
Date	16/01	24/02	29/03	1/05	1/06	6/06	12/07	12/08	2/09	2/10	2/11	5/12	12/08
Year	1990	1990	1989	1987	1978	1982	1983	1975	1983	1985	1968	1986	1975
23310 BRAKKER S	10,4	12,2	18,7	24,4	25,2	29,4	29,7	33,7	26,7	22,4	15,6	11,6	33,7
Date	16/01	24/02	19/03	22/04	2/05	27/06	24/07	12/08	13/09	2/10	2/11	24/12	12/08
Year	1975	1990	1990	1968	1966	1976	1983	1975	1969	1985	1968	1977	1975
25140 NORDBY	9,5	10,9	16,3	22,6	28,4	31,7	32,5	33,6	28,8	20,3	14,1	11,5	33,6
Date	3/01	25/02	19/03	20/04	28/05	17/06	8/07	12/08	2/09	11/10	2/11	5/12	12/08
Year	1988	1961	1990	1968	1985	1968	1989	1975	1983	1979	1968	1986	1975
27080 TRANEBJERG	10,4	12,0	16,2	20,0	24,6	28,5	29,4	32,2	26,4	21,4	15,4	11,0	32,2
Date	3/01	22/02	29/03	21/04	3/05	20/06	8/07	12/08	2/09	2/10	2/11	24/12	12/08
Year	1988	1990	1989	1988	1966	1970	1989	1975	1983	1985	1968	1977	1975
28490 SKJOLDNÆS FYR	10,4	11,6	16,1	22,4	25,0	29,6	28,8	32,0	26,8	21,4	15,5	12,4	32,0
Date	3/01	9/02	25/03	22/04	17/05	28/06	24/07	11/08	2/09	1/10	2/11	24/12	11/08
Year	1988	1990	1973	1968	1979	1973	1969	1975	1975	1965	1968	1977	1975
28590 RUDKØBING	10,4	13,7	16,9	24,2	25,3	29,8	30,0	31,4	26,3	20,4	18,2	11,6	31,4
Date	16/01	22/02	30/03	21/04	28/05	26/06	2/07	11/08	4/09	2/10	2/11	25/12	11/08
Year	1975	1990	1968	1968	1985	1961	1961	1975	1975	1985	1968	1977	1975
29020 KOLLEKOLLE	10,0	13,6	18,2	24,6	27,2	29,2	32,2	32,4	27,0	22,6	16,5	12,0	32,4
Date	3/01	22/02	19/03	21/04	17/05	27/06	9/07	5/08	2/09	3/10	2/11	25/12	5/08
Year	1988	1990	1990	1988	1979	1989	1989	1990	1983	1985	1968	1977	1990
30110 SPODSBJERG FYR	9,6	12,6	17,8	22,8	25,8	29,5	32,0	30,0	27,6	21,4	16,3	11,6	32,0
Date	3/01	22/02	19/03	21/04	1/06	17/06	9/07	2/08	2/09	2/10	2/11	25/12	9/07
Year	1988	1990	1990	1988	1979	1968	1989	1969	1983	1985	1968	1977	1989
30170 LILLE DYREHAVEGÅRD	10,3	15,0	19,1	24,6	27,5	32,2	33,6	35,1	28,3	23,0	17,0	12,0	35,1
Date	3/01	22/02	19/03	21/04	1/06	5/06	9/07	11/08	4/09	5/10	2/11	25/12	11/08
Year	1988	1990	1990	1988	1979	1982	1989	1975	1975	1985	1968	1977	1975
31290 NÆSGÅRD	10,9	14,4	19,9	22,9	27,4	30,5	29,7	31,5	25,8	21,8	17,1	11,7	31,5
Date	7/01	22/02	30/03	21/04	18/05	28/06	13/07	12/08	1/09	4/10	1/11	4/12	12/08
Year	1983	1990	1968	1988	1971	1976	1983	1975	1961	1966	1968	1985	1975

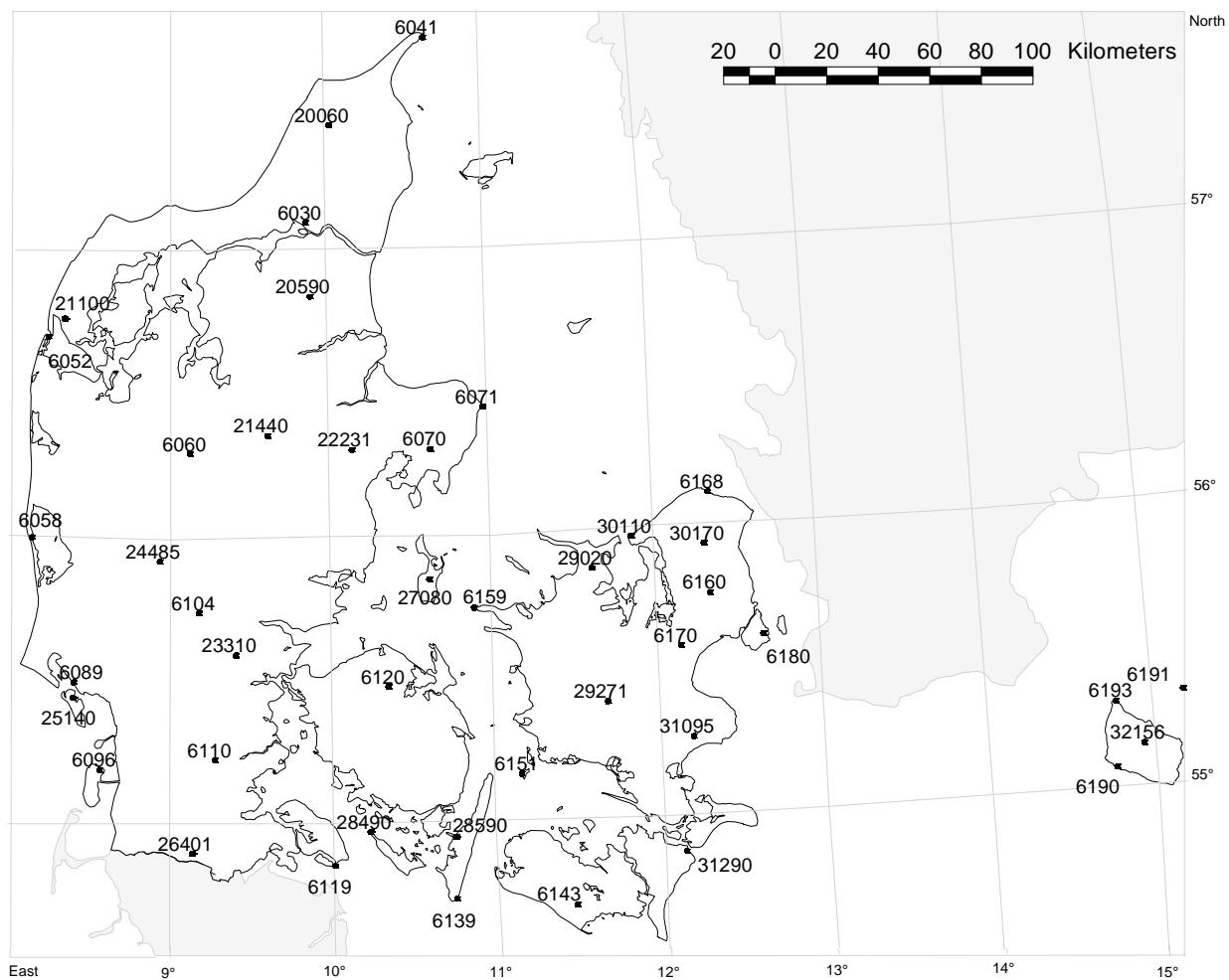


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Table 4.3.2. Absolute maximum temperature (°C). Provisional climate extreme.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06058 HVIDE SANDE, 1990-97	8,8	8,3	12,6	24,2	25,3	29,0	31,7	29,9	25,5	18,4	12,7	10,3	31,7
Date	16/01	13/02	28/03	29/04	22/05	1/07	1/08	12/08	3/09	10/10	4/11	12/12	1/08
Year	1990	1992	1991	1993	1992	1992	1994	1997	1991	1995	1996	1994	1994
06070 FSN TIRSTRUP, 1979-97	12,0	11,5	17,9	25,1	26,1	29,6	30,9	30,7	26,5	23,0	14,4	13,4	30,9
Date	17/01	24/02	29/03	24/04	22/05	6/06	15/07	8/08	4/09	2/10	2/11	12/12	15/07
Year	1993	1990	1989	1996	1993	1982	1994	1982	1991	1985	1982	1994	1994
06096 RØMØ/JUVRE, 1983-97	9,3	10,7	17,0	25,2	27,9	28,5	32,1	32,6	29,5	20,6	13,9	10,8	32,6
Date	1/02	25/02	29/03	29/04	28/05	8/06	8/07	14/08	2/09	16/10	3/11	4/12	14/08
Year	1990	1990	1989	1993	1985	1996	1989	1997	1983	1990	1984	1986	1997
06104 BILLUND LUFTHAVN, 1970-97	10,5	12,6	19,5	26,4	28,0	30,8	31,9	33,1	29,1	21,9	14,4	12,1	33,1
Date	1/02	24/02	19/03	23/04	17/05	1/07	26/07	11/08	4/09	10/10	3/11	11/12	11/08
Year	1989	1990	1990	1996	1979	1992	1994	1975	1991	1995	1984	1994	1975
06143 LOLLAND FALSTER AIRPORT, 1985-97	10,3	13,5	16,6	26,9	25,5	30,2	32,5	31,4	25,9	20,9	13,8	11,1	32,5
Date	14/01	22/02	29/03	24/04	27/05	1/07	22/07	5/08	2/09	11/10	4/11	22/12	22/07
Year	1993	1990	1989	1996	1985	1992	1992	1990	1997	1995	1996	1989	1992
06168 NAKKEHOVED FYR, 1987-97	10,3	14,4	17,7	27,5	26,5	29,0	32,5	31,1	25,4	21,0	13,5	10,7	32,5
Date	3/01	22/02	19/03	24/04	22/05	9/06	27/07	5/08	2/09	10/10	4/11	12/12	27/07
Year	1988	1990	1990	1996	1993	1996	1994	1990	1997	1995	1996	1994	1994
06170 ROSKILDE LUFTHAVN, 1974-97	10,5	14,5	18,6	27,0	31,0	31,0	33,1	33,2	27,2	22,3	14,0	12,7	33,2
Date	3/01	22/02	19/03	23/04	1/06	2/06	8/07	12/08	2/09	3/10	4/11	25/12	12/08
Year	1988	1990	1990	1996	1978	1978	1991	1975	1975	1985	1996	1977	1975
24485 DØVLING, 1975-97	10,7	12,2	18,5	27,4	27,5	30,2	31,9	34,3	28,2	21,9	15,5	12,2	34,3
Date	16/01	24/02	19/03	29/04	28/05	1/07	26/07	12/08	2/09	2/10	3/11	11/12	12/08
Year	1990	1990	1990	1993	1985	1992	1994	1975	1983	1985	1984	1994	1975
26401 STORE JYNDEVAD II, 1987-97	10,4	12,7	19,4	26,9	27,2	30,3	31,8	31,6	27,7	22,0	14,2	11,6	31,8
Date	14/01	22/02	19/03	23/04	26/05	9/06	22/07	14/08	4/09	10/10	3/11	11/12	22/07
Year	1993	1990	1990	1996	1989	1996	1992	1997	1991	1995	1996	1994	1992
29271 ALSTEDGÅRD II, 1987-97	10,6	13,0	17,0	27,6	26,1	29,4	32,8	32,5	27,0	20,5	13,6	11,5	32,8
Date	17/01	22/02	19/03	24/04	9/05	1/07	27/07	11/08	4/09	10/10	4/11	12/12	27/07
Year	1993	1990	1990	1996	1990	1992	1994	1992	1991	1995	1996	1994	1994
31095 VIVEDE OVERDREV, 1973-91	10,9	13,9	17,5	23,0	25,9	31,1	32,2	33,2	25,1	22,0	13,8	12,8	33,2
Date	16/01	22/02	29/03	21/04	1/06	1/07	12/07	12/08	4/09	3/10	10/11	25/12	12/08
Year	1990	1990	1989	1988	1978	1987	1983	1975	1975	1985	1982	1977	1975
32156 ØSTERLARS SV, 1985-97	10,0	12,4	15,2	25,8	27,6	29,4	31,4	34,2	25,6	21,6	13,0	10,0	34,2
Date	18/01	22/02	20/03	28/04	29/05	1/07	27/07	11/08	3/09	5/10	4/11	29/12	11/08
Year	1993	1990	1990	1993	1985	1997	1994	1992	1997	1985	1996	1994	1992

4.4 Number of ice days (Tmax < 0°C)



Map 4.4. Stations with number of ice days normals. See station catalogue 4.4.

Ice days can occur during the period from November to April. The inland stations record greatest number and the coastal stations - especially those of the west coast - the fewest number of ice days.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	114	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	114	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	114	THYBORØN	56	42	N	8	13	E	2	1961	1990
06058	114	HVIDE SANDE	56	0	N	8	8	E	3	1990	1997
06060	114	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	114	FSN TIRSTRUP	56	18	N	10	37	E	23	1979	1997
06071	114	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	114	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1969	1990
06096	114	RØMØ/JUVRE	55	11	N	8	34	E	4	1983	1997
06104	114	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	114	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	114	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	114	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	114	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06143	114	LOLLAND FALSTER AIRPORT	54	42	N	11	27	E	5	1985	1997
06151	114	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	114	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	114	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06168	114	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	114	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	114	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	114	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	114	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
06193	114	HAMMER ODDE FYR	55	18	N	14	47	E	11	1971	1990
20060	114	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1961	1990
20590	114	SKØRPING	56	50	N	9	53	E	62	1961	1990
21100	114	VESTERVIG	56	46	N	8	19	E	18	1971	1990
21440	114	TANGE	56	21	N	9	36	E	13	1961	1990
22231	114	ØDUM II	56	18	N	10	8	E	61	1961	1990
23310	114	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	114	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	114	NORDBY	55	26	N	8	24	E	6	1971	1990
26401	114	STORE JYNDEVAD II	54	54	N	9	7	E	15	1987	1997
27080	114	TRANEBJERG	55	51	N	10	36	E	11	1971	1990
28490	114	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	114	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	114	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
29271	114	ALSTEDGÅRD II	55	24	N	11	40	E	45	1987	1997
30110	114	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	114	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1990
31095	114	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	114	NÆSGÅRD	54	52	N	12	7	E	15	1971	1990
32156	114	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 4.4 Element number 114: Number of ice days (Tmax < 0°C).

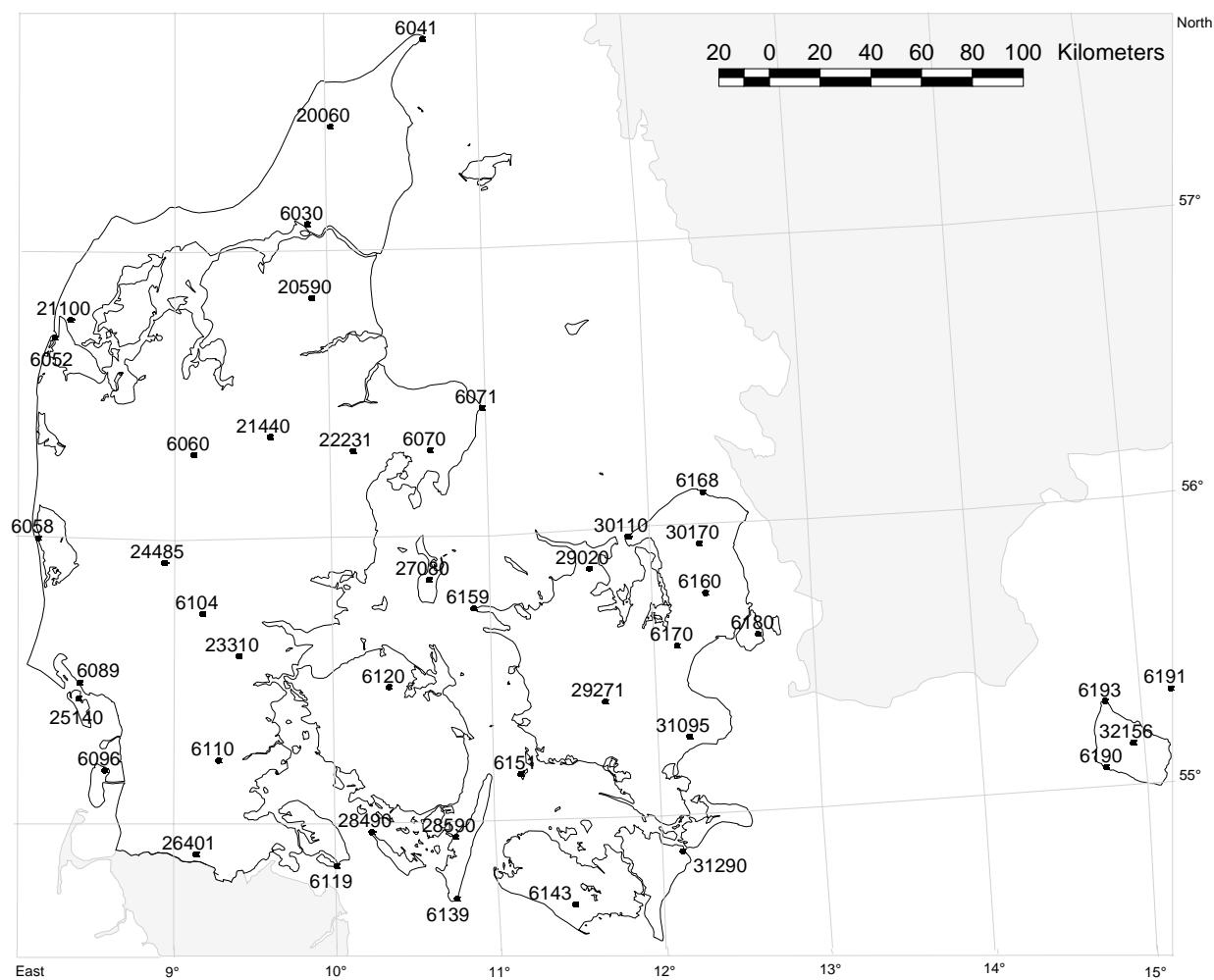
Table 4.4.1. Number of ice days (Tmax < 0 °C). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	9,0	7,5	2,0	0,2	0	0	0	0	0	0	0,8	4,8	24
06041 SKAGEN FYR	8,3	7,5	2,6	0,2	0	0	0	0	0	0	0,3	3,4	22
06052 THYBORØN	6,1	5,6	1,6	0,1	0	0	0	0	0	0	0,2	2,8	16
06060 FSN KARUP	8,5	7,2	1,8	0,2	0	0	0	0	0	0	1,0	4,9	24
06071 FORNÆS FYR	6,9	7,1	2,7	0	0	0	0	0	0	0	0,2	2,4	19
06110 FSN SKRYDSTRUP	7,9	7,1	2,1	0,1	0	0	0	0	0	0	0,6	4,5	22
06119 KEGNÆS FYR	6,9	6,5	2,2	0,0	0	0	0	0	0	0	0,1	2,8	19
06120 ODENSE LUFTHAVN	8,2	6,9	2,1	0	0	0	0	0	0	0	0,3	3,9	21
06139 KELDSNOR FYR	6,9	6,4	2,0	0,1	0	0	0	0	0	0	0,1	2,3	18
06151 OMØ FYR	7,2	6,7	1,9	0,1	0	0	0	0	0	0	0,1	2,2	18
06159 RØSNÆS FYR	7,5	7,4	3,1	0,1	0	0	0	0	0	0	0,1	2,2	20
06160 FSN VÆRLØSE	8,9	8,1	2,4	0,0	0	0	0	0	0	0	0,9	4,8	25
06180 KØBENHAVNS LUFTHAVN	8,5	7,1	2,1	0,1	0	0	0	0	0	0	0,6	3,8	22
06190 BORNHOLMS LUFTHAVN	8,0	7,4	2,6	0,0	0	0	0	0	0	0	0,3	2,7	21
06191 CHRISTIANSØ FYR	5,8	6,9	3,3	0,2	0	0	0	0	0	0	0,1	1,6	18
20060 HJØRRING VANDVÆRK	9,4	8,3	2,5	0,2	0	0	0	0	0	0	0,8	5,1	26
20590 SKØRPING	9,4	8,3	2,7	0,2	0	0	0	0	0	0	1,1	5,6	27
21440 TANGE	8,8	7,1	2,1	0,2	0	0	0	0	0	0	1,0	4,5	24
22231 ØDUM II	9,6	8,7	2,9	0,2	0	0	0	0	0	0	1,0	5,3	28
23310 BRAKKER S	8,8	7,4	2,7	0,2	0	0	0	0	0	0	1,0	5,2	25
28490 SKJOLDNÆS FYR	7,4	6,8	2,1	0,1	0	0	0	0	0	0	0,1	2,7	19
28590 RUDKØBING	7,9	7,4	2,0	0,1	0	0	0	0	0	0	0,2	3,5	21
29020 KOLLEKOLLE	8,6	7,9	2,7	0,1	0	0	0	0	0	0	0,4	4,4	24
30110 SPODSBJERG FYR	8,7	8,0	2,7	0,0	0	0	0	0	0	0	0,4	4,0	24
30170 LILLE DYREHAVEGÅRD	9,3	7,1	1,7	0,0	0	0	0	0	0	0	0,7	5,2	24

Table 4.4.2. Number of ice days (Tmax < 0 °C). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06058 HVIDE SANDE, 1990-97	5,1	5,9	0,4	0	0	0	0	0	0	0	1,0	3,1	16
06070 FSN TIRSTRUP, 1979-97	8,5	7,8	1,4	0	0	0	0	0	0	0	0,4	3,7	22
06089 SÆDENSTRAND FYR, 1969-90	6,3	5,6	1,1	0	0	0	0	0	0	0	0,4	2,7	16
06096 RØMØ/JUVRE, 1983-97	6,8	5,8	1,2	0	0	0	0	0	0	0	0,5	3,3	18
06104 BILLUND LUFTHAVN, 1970-97	8,8	7,6	1,9	0,1	0	0	0	0	0	0	0,9	4,4	24
06143 LOLLAND FALSTER AIRPORT, 1985-97	7,5	7,8	2,0	0	0	0	0	0	0	0	0,7	3,9	22
06168 NAKKEHOVED FYR, 1987-97	6,2	6,4	2,1	0	0	0	0	0	0	0	0,6	3,1	18
06170 ROSKILDE LUFTHAVN, 1974-97	8,2	8,5	1,8	0	0	0	0	0	0	0	0,7	4,4	24
06193 HAMMER ODDE FYR, 1971-90	5,9	6,4	2,9	0	0	0	0	0	0	0	0,1	1,3	16
21100 VESTERVIG, 1971-90	6,4	5,1	1,4	0	0	0	0	0	0	0	0,5	2,5	16
24485 DØVLING, 1975-97	6,8	6,1	1,0	0	0	0	0	0	0	0	0,6	3,6	18
25140 NORDBY, 1971-90	6,4	5,1	1,2	0	0	0	0	0	0	0	0,4	2,1	15
26401 STORE JYNDEVAD II, 1987-97	6,0	4,1	1,4	0	0	0	0	0	0	0	0,4	3,5	15
27080 TRANEBJERG, 1971-90	6,7	6,6	2,3	0	0	0	0	0	0	0	0,3	1,8	18
29271 ALSTEDGÅRD II, 1987-97	6,4	6,1	2,1	0	0	0	0	0	0	0	0,8	3,6	19
31095 VIVEDE OVERDREV, 1973-91	6,7	6,8	1,7	0	0	0	0	0	0	0	0,5	2,9	19
31290 NÆSGÅRD, 1971-90	7,3	6,6	2,0	0	0	0	0	0	0	0	0,4	2,8	19
32156 ØSTERLARS SV, 1985-97	7,4	9,2	3,7	0	0	0	0	0	0	0	0,8	2,7	24

4.5 Number of summer days ($T_{max} > 25^{\circ}\text{C}$)



Map 4.5. Stations with number of summer days normals. See station catalogue 4.5.

During the 1961-1990 period, summer days occurred only during the period from May to September, with July on average receiving the most, at the 26 stations of the climatological standard normal table. But according to the provisory normals, summer days also occur in April. For example, April 23 and 24, 1996 were very hot, a maximum of 27.6°C being reached at Alstedgård (station 29271) in central Zealand.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	115	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	115	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	115	THYBORØN	56	42	N	8	13	E	2	1961	1990
06058	115	HVIDE SANDE	56	0	N	8	8	E	3	1990	1997
06060	115	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	115	FSN TIRSTRUP	56	18	N	10	37	E	23	1961	1990
06071	115	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	115	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1969	1990
06096	115	RØMØ/JUVRE	55	11	N	8	34	E	4	1983	1997
06104	115	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	115	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	115	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	115	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	115	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06143	115	LOLLAND FALSTER AIRPORT	54	42	N	11	27	E	5	1985	1997
06151	115	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	115	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	115	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06168	115	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	115	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	115	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	115	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	115	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
06193	115	HAMMER ODDE FYR	55	18	N	14	47	E	11	1971	1990
20060	115	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1961	1990
20590	115	SKØRPING	56	50	N	9	53	E	62	1961	1990
21100	115	VESTERVIG	56	46	N	8	19	E	18	1971	1990
21440	115	TANGE	56	21	N	9	36	E	13	1961	1990
22231	115	ØDUM II	56	18	N	10	8	E	61	1961	1990
23310	115	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	115	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	115	NORDBY	55	26	N	8	24	E	6	1971	1990
26401	115	STORE JYNDEVAD II	54	54	N	9	7	E	15	1987	1997
27080	115	TRANEBJERG	55	51	N	10	36	E	11	1971	1990
28490	115	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	115	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	115	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
29271	115	ALSTEDGÅRD II	55	24	N	11	40	E	45	1987	1997
30110	115	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	115	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1990
31095	115	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	115	NÆSGÅRD	54	52	N	12	7	E	15	1971	1990
32156	115	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 4.5. Element number 115: Number of summer days (Tmax > 25°C).

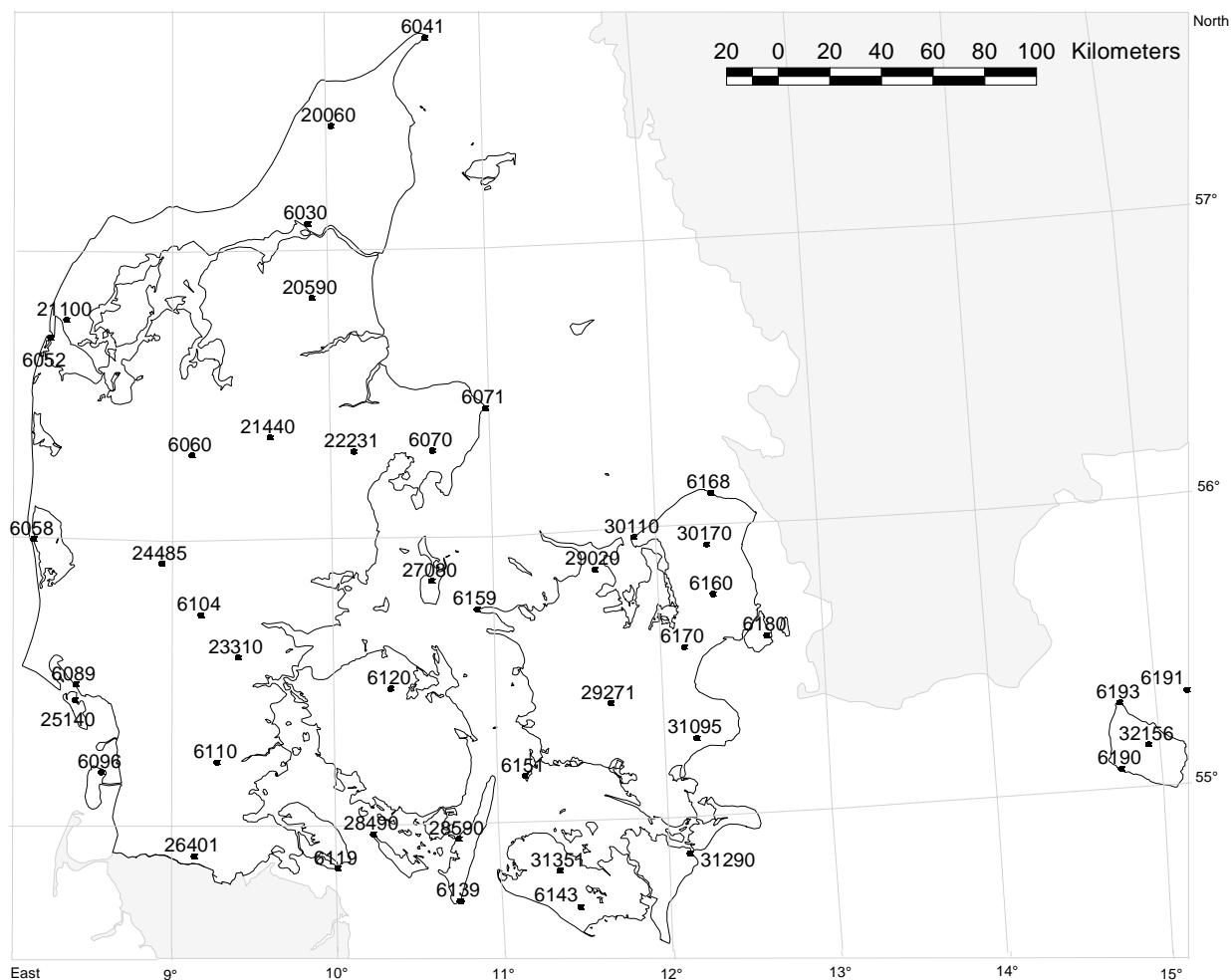
Table 4.5.1. Number of summer days ($T_{max} > 25^{\circ}\text{C}$). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	0	0	0	0	0,2	2,1	3,0	2,2	0,1	0	0	0	7,6
06041 SKAGEN FYR	0	0	0	0	0	0,2	0,5	0,4	0	0	0	0	1,1
06052 THYBORØN	0	0	0	0	0,0	0,4	0,9	0,9	0	0	0	0	2,3
06060 FSN KARUP	0	0	0	0	0,5	2,9	3,8	3,3	0,2	0	0	0	10,7
06070 FSN TIRSTRUP	0	0	0	0	0,0	2,5	3,6	2,4	0,1	0	0	0	8,7
06071 FORNÆS FYR	0	0	0	0	0	0,1	0,6	0,2	0	0	0	0	0,9
06110 FSN SKRYDSTRUP	0	0	0	0	0,1	2,1	2,8	2,6	0,2	0	0	0	7,8
06119 KEGNÆS FYR	0	0	0	0	0	0,3	0,4	0,6	0	0	0	0	1,3
06120 ODENSE LUFTHAVN	0	0	0	0	0,4	2,4	3,6	3,3	0,3	0	0	0	10
06139 KELDSNOR FYR	0	0	0	0	0	0,5	0,8	0,6	0	0	0	0	1,9
06151 OMØ FYR	0	0	0	0	0	0,2	0,4	0,7	0,0	0	0	0	1,4
06159 RØSNÆS FYR	0	0	0	0	0	0,2	0,5	0,5	0,0	0	0	0	1,2
06160 FSN VÆRLØSE	0	0	0	0	0,2	3,1	3,5	2,7	0,2	0	0	0	9,8
06180 KØBENHAVNS LUFTHAVN	0	0	0	0	0,1	1,7	1,9	1,7	0,1	0	0	0	5,4
06190 BORNHOLMS LUFTHAVN	0	0	0	0	0,3	1,3	2,0	2,0	0,1	0	0	0	5,7
06191 CHRISTIANSØ FYR	0	0	0	0	0	0,1	0,1	0,3	0	0	0	0	0,5
20060 HJØRRING VANDVÆRK	0	0	0	0	0,2	1,6	2,5	2,0	0,1	0	0	0	6,4
20590 SKØRPING	0	0	0	0	0,2	1,2	1,8	1,5	0,0	0	0	0	4,7
21440 TANGE	0	0	0	0	0,4	3,1	3,9	3,4	0,2	0	0	0	11,0
22231 ØDUM II	0	0	0	0	0,0	1,7	2,3	2,2	0,1	0	0	0	6,4
23310 BRAKKER S	0	0	0	0	0,0	2,1	3,1	3,1	0,1	0	0	0	8,4
28490 SKJOLDNÆS FYR	0	0	0	0	0	0,6	1,7	1,8	0,1	0	0	0	4,1
28590 RUDKØBING	0	0	0	0	0,0	1,1	1,6	1,4	0,1	0	0	0	4,2
29020 KOLLEKOLLE	0	0	0	0	0,2	1,8	2,7	2,2	0,2	0	0	0	7,2
30110 SPODSBJERG FYR	0	0	0	0	0,2	0,8	1,7	1,5	0,2	0	0	0	4,4
30170 LILLE DYREHAVEGÅRD	0	0	0	0	0,6	3,3	4,4	3,7	0,3	0	0	0	12,2

Table 4.5.2. Number of summer days ($T_{max} > 25^{\circ}\text{C}$). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06058 HVIDE SANDE, 1990-97	0	0	0	0	0,1	0,8	3,1	3,1	0,1	0	0	0	7,3
06089 SÆDENSTRAND FYR, 1969-90	0	0	0	0	0,7	2,3	3,6	3,0	0,1	0	0	0	9,7
06096 RØMØ/JUVRE, 1983-97	0	0	0	0,1	0,5	1,1	3,9	3,1	0,2	0	0	0	8,9
06104 BILLUND LUFTHAVN, 1970-97	0	0	0	0,1	0,4	3,0	4,4	4,6	0,2	0	0	0	12,6
06143 LOLLAND FALSTER AIRPORT, 1985-97	0	0	0	0,2	0,3	1,3	4,1	5,2	0,2	0	0	0	11,2
06168 NAKKEHOVED FYR, 1987-97	0	0	0	0,3	0,3	1,1	2,5	3,2	0,1	0	0	0	7,4
06170 ROSKILDE LUFTHAVN, 1974-97	0	0	0	0,0	0,3	2,0	4,0	4,1	0,2	0	0	0	10,6
06193 HAMMER ODDE FYR, 1971-90	0	0	0	0	0,1	0,3	0,7	1,1	0,1	0	0	0	2,2
21100 VESTERVIG, 1971-90	0	0	0	0	0,6	1,2	2,7	2,1	0,1	0	0	0	6,7
24485 DØVLING, 1975-97	0	0	0	0,1	0,7	2,9	4,3	5,2	0,3	0	0	0	13,5
25140 NORDBY, 1971-90	0	0	0	0	0,6	1,9	3,4	2,4	0,1	0	0	0	8,3
26401 STORE JYNDEVAD II, 1987-97	0	0	0	0,3	0,5	2,5	4,9	6,1	0,4	0	0	0	14,6
27080 TRANEBJERG, 1971-90	0	0	0	0	0	0,7	2,0	1,9	0,1	0	0	0	4,6
29271 ALSTEDGÅRD II, 1987-97	0	0	0	0,4	0,4	1,6	5,4	7,4	0,4	0	0	0	15,5
31095 VIVEDE OVERDREV, 1973-91	0	0	0	0	0,1	2,1	2,8	2,7	0,1	0	0	0	7,8
31290 NÆSGÅRD, 1971-90	0	0	0	0	0,1	0,9	1,9	2,2	0,2	0	0	0	5,2
32156 ØSTERLARS SV, 1985-97	0	0	0	0,1	0,1	1,2	3,5	3,8	0,2	0	0	0	8,8

4.6 Average minimum temperature



Map 4.6. Stations with average minimum temperature normals. See station catalogue 4.6.

The monthly average for daily minimum temperature may fall below 0 °C in the period December to March, but never drops below 10 °C in July and August. The average minimum temperature is typically higher in August than in July at the coastal lighthouses. Conversely, they are typically higher in July than August for the inland stations. This may be explained by increased radiation of heat from the inland stations making them colder at night.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	121	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	121	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	121	THYBORØN	56	42	N	8	13	E	2	1961	1990
06058	121	HVIDE SANDE	56	0	N	8	8	E	3	1990	1997
06060	121	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	121	FSN TIRSTRUP	56	18	N	10	37	E	23	1979	1997
06071	121	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	121	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1961	1990
06096	121	RØMØ/JUVRE	55	11	N	8	34	E	4	1983	1997
06104	121	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	121	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	121	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	121	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	121	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06143	121	LOLLAND FALSTER AIRPORT	54	42	N	11	27	E	5	1985	1997
06151	121	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	121	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	121	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06168	121	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	121	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	121	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	121	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	121	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
06193	121	HAMMER ODDE FYR	55	18	N	14	47	E	11	1961	1990
20060	121	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1961	1990
20590	121	SKØRPING	56	50	N	9	53	E	62	1961	1990
21100	121	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	121	TANGE	56	21	N	9	36	E	13	1961	1990
22231	121	ØDUM II	56	18	N	10	8	E	61	1961	1990
23310	121	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	121	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	121	NORDBY	55	26	N	8	24	E	6	1961	1990
26401	121	STORE JYNDEVAD II	54	54	N	9	7	E	15	1987	1997
27080	121	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	121	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	121	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	121	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
29271	121	ALSTEDGÅRD II	55	24	N	11	40	E	45	1987	1997
30110	121	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	121	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1990
31095	121	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	121	NÆSGÅRD	54	52	N	12	7	E	15	1961	1990
31351	121	ABED II	54	50	N	11	20	E	7	1987	1998
32156	121	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 4.6. Element number 121: Average minimum temperature.

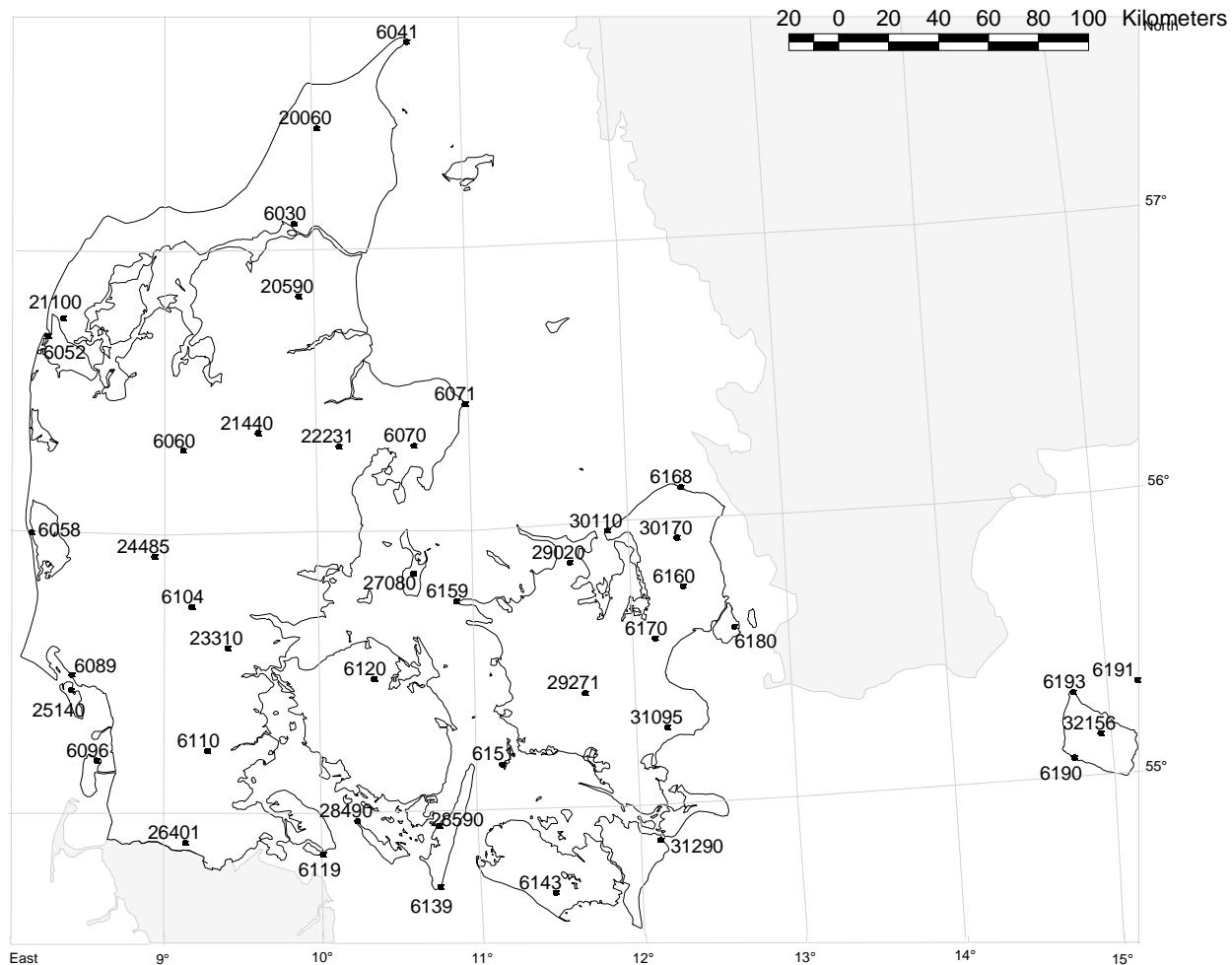
Table 4.6.1. Average minimum temperature (°C). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	-2,9	-3,2	-1,1	1,8	6,4	10,0	11,7	11,2	8,6	5,6	1,5	-1,3	4,0
06041 SKAGEN FYR	-1,3	-2,0	-0,2	2,5	7,3	11,1	12,7	12,8	10,4	7,4	3,4	0,6	5,4
06052 THYBORØN	-0,3	-0,8	0,9	3,6	8,1	11,7	13,5	13,9	11,6	8,5	4,6	1,6	6,4
06060 FSN KARUP	-2,9	-3,1	-1,2	1,4	5,9	9,3	11,0	10,5	8,2	5,4	1,5	-1,4	3,7
06071 FORNÆS FYR	-1,4	-1,8	-0,1	2,7	7,4	10,7	12,1	12,2	9,7	7,0	3,0	0,1	5,1
06089 SÆDENSTRAND FYR	-1,3	-1,6	0,3	3,0	7,5	11,2	12,9	12,9	10,5	7,4	3,4	0,3	5,6
06110 FSN SKRYDSTRUP	-2,7	-2,9	-0,8	1,5	5,9	9,2	10,8	10,3	8,0	5,4	1,6	-1,2	3,8
06119 KEGNÆS FYR	-0,9	-1,3	0,4	3,1	7,9	11,7	13,2	13,6	11,3	8,1	4,0	0,9	6,0
06120 ODENSE LUFTHAVN	-2,2	-2,4	-0,4	2,1	6,6	9,9	11,3	11,0	8,6	5,9	2,3	-0,6	4,4
06139 KELDSNOR FYR	-0,8	-1,2	0,5	3,3	8,0	12,0	13,7	14,0	11,7	8,4	4,3	1,1	6,3
06151 OMØ FYR	-0,9	-1,2	0,4	3,3	8,0	12,1	13,9	14,1	11,8	8,5	4,3	1,0	6,3
06159 RØSNÆS FYR	-0,7	-1,1	0,4	3,5	8,3	12,2	13,8	14,2	11,7	8,5	4,5	1,2	6,4
06160 FSN VÆRLØSE	-2,9	-3,2	-1,1	1,8	6,5	10,2	11,9	11,4	8,6	5,7	1,9	-1,2	4,1
06180 KØBENHAVNS LUFTHAVN	-2,0	-2,4	-0,6	2,3	7,2	11,3	12,9	12,6	9,8	6,7	2,7	-0,5	5,0
06190 BORNHOLMS LUFTHAVN	-1,7	-2,4	-0,8	1,7	6,3	10,8	13,1	13,1	10,5	7,0	3,3	0,0	5,1
06191 CHRISTIANSØ FYR	-0,1	-0,6	0,6	2,7	6,8	11,8	14,7	15,3	12,5	9,1	4,9	1,7	6,6
06193 HAMMER ODDE FYR	-0,8	-1,2	0,1	2,4	6,5	11,3	13,9	14,2	11,6	8,2	4,2	0,9	5,9
20060 HJØRRING VANDVÆRK	-3,0	-3,6	-1,0	1,6	6,0	9,2	10,8	10,4	8,0	5,1	1,4	-1,2	3,6
20590 SKØRPING	-3,0	-3,2	-1,3	1,3	5,7	9,2	11,0	10,7	8,2	5,4	1,2	-1,3	3,7
21100 VESTERVIG	-1,9	-2,1	-0,1	2,4	6,8	10,2	12,0	12,0	9,9	6,8	2,8	0,0	4,9
21440 TANGE	-3,1	-3,3	-1,3	1,2	5,5	8,9	10,7	10,0	7,6	4,8	1,1	-1,6	3,4
22231 ØDUM II	-3,0	-3,1	-1,0	1,7	6,2	9,3	10,7	10,6	8,3	5,5	1,5	-1,4	3,8
23310 BRAKKER S	-2,7	-2,9	-0,7	2,0	6,3	9,2	10,8	10,6	8,5	5,7	1,7	-1,2	3,9
25140 NORDBY	-1,4	-1,7	0,4	3,0	7,4	11,0	12,7	12,8	10,5	7,2	3,2	0,2	5,4
27080 TRANEBJERG	-1,4	-1,7	0,1	2,9	7,4	10,9	12,7	12,6	10,4	7,3	3,4	0,3	5,4
28490 SKJOLDNÆS FYR	-1,0	-1,5	0,3	3,3	8,2	11,9	13,5	14,0	11,7	8,3	4,2	0,9	6,2
28590 RUDKØBING	-1,5	-1,7	0,3	3,3	8,1	11,7	13,4	13,5	11,1	7,8	3,5	0,4	5,8
29020 KOLLEKOLLE	-2,2	-2,4	-0,4	2,6	7,4	11,1	12,8	12,7	10,1	6,8	2,7	-0,3	5,1
30110 SPODSBJERG FYR	-1,9	-2,2	-0,4	3,0	7,9	12,0	13,7	13,6	10,9	7,4	3,2	0,0	5,6
30170 LILLE DYREHAVEGÅRD	-2,8	-3,0	-0,9	2,2	7,2	11,1	12,8	12,5	9,6	6,3	2,1	-1,0	4,7
31290 NÆSGÅRD	-1,8	-1,9	-0,1	2,8	7,2	11,2	12,9	13,1	10,5	7,3	3,1	-0,1	5,4

Table 4.6.2. Average minimum temperature (°C). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06058 HVIDE SANDE, 1990-97	0,0	-0,1	1,6	3,9	7,9	11,4	14,2	14,7	11,0	7,4	3,1	0,6	6,3
06070 FSN TIRSTRUP, 1979-97	-2,7	-2,8	-0,9	1,2	5,5	9,2	11,3	11,1	7,8	5,0	1,5	-0,9	3,8
06096 RØMØ/JUVRE, 1983-97	-0,7	-1,4	0,6	3,4	7,6	10,9	13,2	13,3	10,3	6,9	2,5	0,5	5,6
06104 BILLUND LUFTHAVN, 1970-97	-2,6	-2,7	-0,8	1,3	6,0	9,1	11,1	10,6	7,6	4,7	1,2	-1,0	3,7
06143 LOLAND FALSTER AIRPORT, 1985-97	-1,8	-1,9	0,0	2,9	7,3	10,6	12,7	12,7	9,4	6,1	2,2	0,1	5,0
06168 NAKKEHOVED FYR, 1987-97	-1,0	-0,7	0,4	3,4	7,6	11,5	14,0	14,0	10,2	6,6	2,4	0,1	5,7
06170 ROSKILDE LUFTHAVN, 1974-97	-2,6	-2,8	-0,7	1,7	6,2	9,5	11,6	11,5	8,3	5,5	1,8	-1,0	4,1
24485 DØVLING, 1975-97	-2,5	-2,7	-0,5	1,4	5,3	8,3	10,2	9,9	7,4	4,9	1,3	-1,3	3,5
26401 STORE JYNDEVAD II, 1987-97	-1,2	-0,9	0,2	2,5	6,3	9,4	11,7	11,5	8,3	5,0	1,4	-0,5	4,5
29271 ALSTEDGÅRD II, 1987-97	-1,5	-1,0	-0,1	2,6	6,6	10,0	12,1	12,3	8,9	5,4	1,8	-0,3	4,7
31095 VIVEDE OVERDREV, 1973-91	-2,0	-2,3	-0,1	2,0	6,2	9,5	11,5	11,2	8,9	6,2	2,4	-0,2	4,5
31351 ABED II, 1987-98	-0,9	-0,5	0,3	3,1	7,1	10,2	12,2	12,2	9,2	5,6	1,9	-0,1	5,0
32156 ØSTERLARS SV, 1985-97	-2,2	-2,7	-0,9	2,0	6,0	9,6	11,8	12,2	9,0	5,7	1,7	-0,5	4,3

4.7 Absolute minimum temperature



Map 4.7. Stations with absolute minimum temperature. See station catalogue 4.7.

The coldest days - the recorded extremes - occur in January, February and March. The lowest temperature measured among the 31 stations listed in the 1961-1990 climatological standard period table is -28.4°C . This was measured at Karup Airbase (station 06060) on January 8, 1982 - the same date as the overall Danish cold-temperature record was observed, -31.2°C in Hørsted, Thy. The temperature may (albeit rarely) drop below zero at night as late as early June. July is the only frost-free month as temperatures near or below zero have occurred also in late August.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	122	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	122	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	122	THYBORØN	56	42	N	8	13	E	2	1961	1990
06058	122	HVIDE SANDE	56	0	N	8	8	E	3	1990	1997
06060	122	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	122	FSN TIRSTRUP	56	18	N	10	37	E	23	1979	1997
06071	122	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	122	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1961	1990
06096	122	RØMØ/JUVRE	55	11	N	8	34	E	4	1983	1997
06104	122	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	122	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	122	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	122	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	122	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06143	122	LOLLAND FALSTER AIRPORT	54	42	N	11	27	E	5	1985	1997
06151	122	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	122	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	122	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06168	122	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	122	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	122	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	122	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	122	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
06193	122	HAMMER ODDE FYR	55	18	N	14	47	E	11	1961	1990
20060	122	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1961	1990
20590	122	SKØRPING	56	50	N	9	53	E	62	1961	1990
21100	122	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	122	TANGE	56	21	N	9	36	E	13	1961	1990
22231	122	ØDUM II	56	18	N	10	8	E	61	1961	1990
23310	122	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	122	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	122	NORDBY	55	26	N	8	24	E	6	1961	1990
26401	122	STORE JYNDEVAD II	54	54	N	9	7	E	15	1987	1997
27080	122	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	122	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	122	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	122	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
29271	122	ALSTEDGÅRD II	55	24	N	11	40	E	45	1988	1997
30110	122	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	122	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1990
31095	122	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	122	NÆSGÅRD	54	52	N	12	7	E	15	1961	1990
32156	122	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 4.7. Element number 122: Absolute minimum temperature.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
21440 TANGE	-28,0	-25,0	-19,6	-8,8	-3,4	-0,4	3,5	0,4	-3,8	-5,8	-16,0	-23,0	-28,0
Date	9/01	19/02	6/03	12/04	6/05	3/06	23/07	26/08	1/10	30/10	1/12	17/12	9/01
Year	1982	1978	1987	1986	1979	1962	1967	1973	1983	1988	1973	1981	1982
22231 ØDUM II	-25,4	-23,3	-19,5	-6,3	-1,7	0,6	4,9	3,3	-1,3	-4,1	-15,8	-20,6	-25,4
Date	9/01	21/02	6/03	3/04	2/05	2/06	4/07	22/08	29/09	31/10	1/12	28/12	9/01
Year	1982	1963	1987	1989	1979	1989	1972	1964	1972	1988	1985	1981	1982
23310 BRAKKER S	-22,6	-23,7	-16,1	-8,4	-2,8	0,7	4,2	2,5	-0,5	-4,1	-16,5	-21,6	-23,7
Date	28/01	20/02	22/03	24/04	6/05	2/06	6/07	25/08	1/10	20/10	30/11	8/12	20/02
Year	1985	1978	1978	1981	1982	1975	1978	1986	1983	1972	1985	1981	1978
25140 NORDBY	-19,3	-16,2	-12,0	-7,2	-1,5	1,9	5,6	4,0	1,7	-3,0	-13,0	-15,9	-19,3
Date	8/01	21/02	3/03	12/04	6/05	3/06	24/07	14/08	1/10	12/10	1/12	21/12	8/01
Year	1985	1963	1986	1986	1979	1989	1967	1965	1983	1973	1973	1981	1985
27080 TRANEBJERG	-15,4	-19,9	-13,9	-4,5	-0,2	3,0	4,5	6,1	1,8	-1,8	-10,0	-14,1	-19,9
Date	9/01	21/02	6/03	12/04	6/05	2/06	8/07	22/08	1/10	1/11	1/12	28/12	21/02
Year	1982	1963	1987	1986	1979	1989	1965	1964	1979	1976	1973	1981	1963
28490 SKJOLDNÆS FYR	-15,9	-15,0	-14,8	-4,0	1,8	4,6	8,4	8,8	5,2	1,0	-4,7	-9,0	-15,9
Date	12/01	21/02	5/03	16/04	3/05	1/06	5/07	22/08	1/10	31/10	1/12	1/01	12/01
Year	1987	1963	1963	1966	1979	1962	1965	1964	1977	1980	1973	1978	1987
28590 RUDKØBING	-15,7	-19,0	-15,4	-4,4	1,2	5,8	7,4	6,6	4,2	-0,4	-7,6	-10,5	-19,0
Date	30/01	21/02	5/03	15/04	11/05	2/06	4/07	22/08	27/09	1/11	23/11	1/01	21/02
Year	1987	1963	1963	1966	1978	1962	1962	1964	1970	1980	1965	1978	1963
29020 KOLLEKOLLE	-21,0	-16,5	-18,6	-6,1	-0,8	2,5	6,9	5,7	0,0	-3,0	-10,0	-17,4	-21,0
Date	9/01	20/02	7/03	2/04	3/05	21/06	10/07	22/08	1/10	15/10	23/11	18/12	9/01
Year	1982	1970	1987	1961	1981	1973	1962	1964	1987	1962	1965	1981	1982
30110 SPODSBJERG FYR	-20,1	-17,5	-12,5	-7,0	0,3	3,3	7,1	7,7	2,2	-2,5	-6,6	-12,8	-20,1
Date	10/01	15/02	7/03	15/04	2/05	17/06	29/07	27/08	1/10	31/10	23/11	27/12	10/01
Year	1987	1979	1987	1966	1985	1971	1984	1988	1972	1980	1965	1961	1987
30170 LILLE DYRE-HAVEGÅRD	-22,0	-18,3	-15,2	-7,5	-0,8	3,4	5,5	4,3	0,3	-4,7	-10,0	-16,4	-22,0
Date	11/01	21/02	3/03	15/04	11/05	3/06	4/07	1/09	1/10	25/10	1/12	27/12	11/01
Year	1987	1963	1986	1966	1978	1962	1962	1987	1983	1988	1983	1961	1987
31290 NÆSGÅRD	-16,7	-15,6	-14,6	-3,8	0,0	3,3	6,4	6,4	3,2	-0,8	-10,2	-12,0	-16,7
Date	30/01	22/02	3/03	27/04	11/05	2/06	21/07	22/08	30/09	30/10	23/11	22/12	30/01
Year	1987	1963	1986	1971	1978	1975	1971	1964	1969	1988	1965	1963	1987

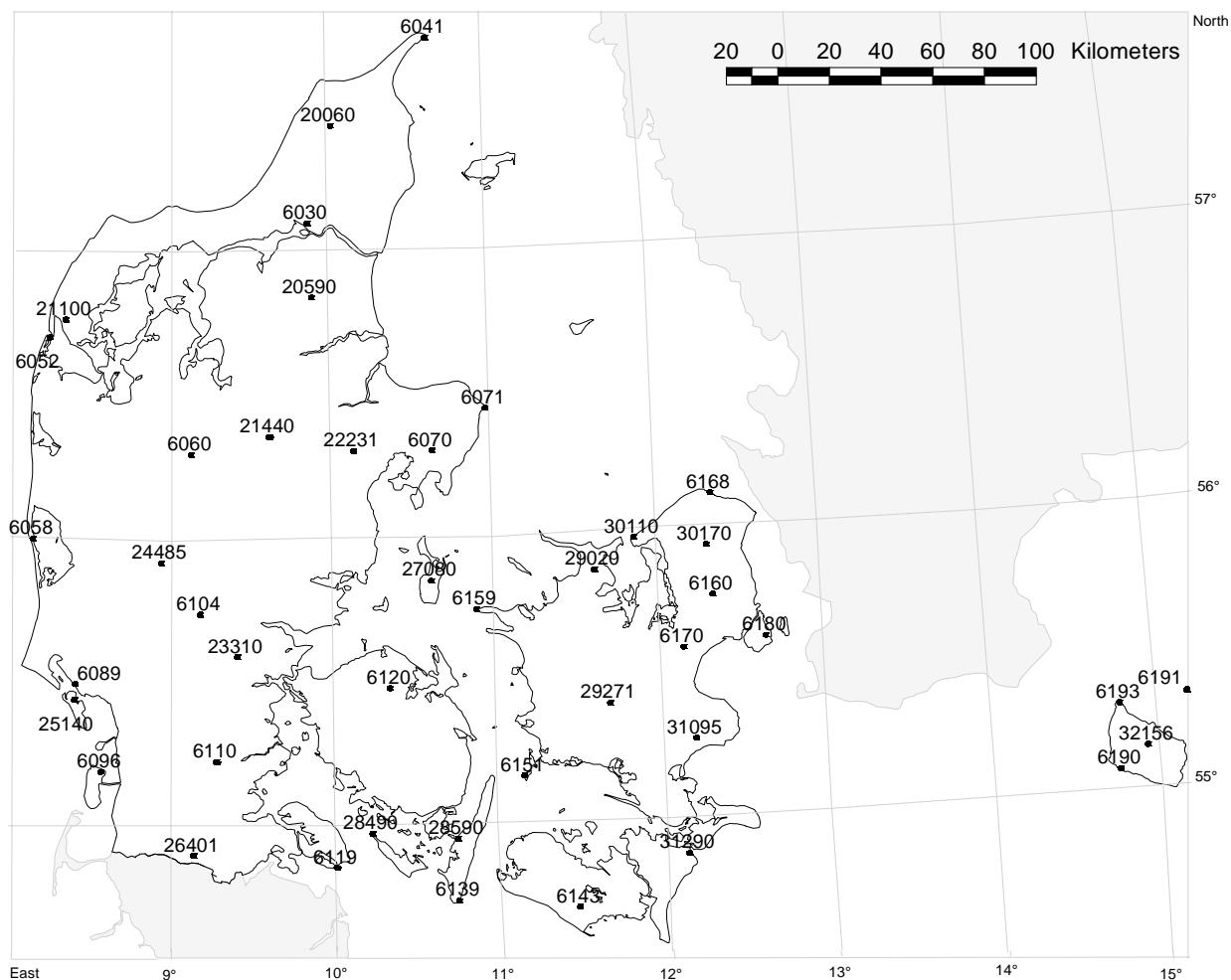


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Table 4.7.2. Absolute minimum temperature (°C). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06058 HVIDE SANDE, 1990-97	-11,8	-11,0	-4,1	-3,7	2,9	5,5	8,9	9,7	4,4	-2,6	-5,8	-15,6	-15,6
Date	7/01	25/02	13/03	3/04	3/05	3/06	10/07	26/08	1/10	28/10	25/11	31/12	31/12
Year	1997	1994	1996	1996	1994	1996	1993	1993	1995	1997	1993	1995	1995
06070 FSN TIRSTRUP, 1979-97	-24,3	-23,0	-21,2	-10,8	-6,0	-0,6	3,4	0,0	-3,5	-7,4	-17,0	-20,0	-24,3
Date	9/01	19/02	3/03	12/04	2/05	2/06	20/07	25/08	1/10	19/10	1/12	18/12	9/01
Year	1982	1985	1986	1986	1979	1989	1996	1979	1983	1994	1985	1981	1982
06096 RØMØ/JUVRE, 1983-97	-16,2	-13,2	-13,1	-3,8	1,2	2,0	7,3	7,5	2,3	-4,4	-11,0	-12,4	-16,2
Date	12/01	9/02	4/03	12/04	3/05	6/06	8/07	13/08	1/10	28/10	30/11	27/12	12/01
Year	1987	1996	1986	1996	1994	1991	1984	1987	1995	1997	1985	1995	1987
06104 BILLUND LUFTHAVN, 1970-97	-19,8	-23,6	-18,7	-8,9	-4,0	-0,4	2,8	2,0	-2,8	-7,2	-18,5	-21,0	-23,6
Date	30/01	20/02	22/03	11/04	2/05	9/06	19/07	30/08	1/10	28/10	1/12	21/12	20/02
Year	1987	1978	1978	1986	1979	1991	1978	1995	1995	1997	1973	1981	1978
06143 LOLLAND FALSTER AIRPORT, 1985-97	-18,4	-17,0	-16,8	-5,5	-0,4	4,7	5,1	4,9	1,2	-4,7	-12,2	-16,2	-18,4
Date	9/01	16/02	4/03	12/04	6/05	6/06	2/07	23/08	1/10	27/10	1/12	27/12	9/01
Year	1985	1985	1986	1986	1993	1991	1995	1986	1987	1997	1985	1995	1985
06168 NAKKEHOVED FYR, 1987-97	-18,1	-11,0	-11,9	-2,8	-0,3	5,3	8,4	4,7	2,1	-2,3	-6,2	-11,1	-18,1
Date	11/01	20/02	4/03	2/04	6/05	6/06	3/07	1/09	1/10	31/10	22/11	27/12	11/01
Year	1987	1987	1987	1987	1993	1991	1987	1987	1987	1992	1988	1996	1987
06170 ROSKILDE LUFTHAVN, 1974-97	-21,3	-20,0	-20,4	-7,7	-3,0	0,5	4,0	3,9	-2,0	-6,2	-14,0	-21,0	-21,3
Date	11/01	20/02	6/03	3/04	11/05	2/06	4/07	28/08	1/10	28/10	1/12	18/12	11/01
Year	1987	1978	1987	1989	1978	1991	1979	1993	1979	1997	1983	1981	1987
24485 DØVLING, 1975-97	-24,6	-26,4	-19,1	-8,5	-5,5	-1,5	1,0	-0,1	-4,4	-9,0	-18,0	-25,6	-26,4
Date	8/01	20/02	22/03	24/04	22/05	6/06	3/07	24/08	1/10	27/10	1/12	17/12	20/02
Year	1982	1978	1978	1981	1980	1991	1992	1976	1983	1997	1985	1981	1978
26401 STORE JYNDEVAD II, 1987-97	-19,6	-17,7	-12,2	-6,4	-2,6	0,3	3,7	3,7	-2,3	-7,7	-11,5	-15,2	-19,6
Date	12/01	14/02	4/03	24/04	7/05	6/06	19/07	26/08	1/10	28/10	25/11	27/12	12/01
Year	1987	1991	1987	1988	1996	1991	1996	1993	1995	1997	1993	1995	1987
29271 ALSTEDGÅRD II, 1987-97	-12,9	-12,9	-6,6	-4,8	0,3	2,3	5,5	6,5	1,4	-4,4	-8,1	-16,8	-16,8
Date	7/01	19/02	15/03	3/04	6/05	6/06	11/07	31/08	27/09	28/10	22/11	27/12	27/12
Year	1997	1991	1988	1989	1993	1991	1993	1994	1990	1997	1988	1995	1995
31095 VIVEDE OVERDREV, 1973-91	-19,8	-18,2	-19,2	-5,1	-1,4	-0,5	4,2	3,0	-2,0	-3,0	-12,0	-17,2	-19,8
Date	28/01	20/02	6/03	12/04	11/05	2/06	4/07	1/09	1/10	24/10	1/12	28/12	28/01
Year	1985	1978	1987	1986	1978	1974	1979	1987	1979	1973	1983	1981	1985
32156 ØSTERLARS SV, 1985-97	-16,8	-18,6	-18,6	-6,3	-1,8	0,4	4,4	3,0	-0,2	-4,9	-7,9	-14,8	-18,6
Date	30/01	14/02	6/03	12/04	8/05	2/06	24/07	1/09	27/09	31/10	22/11	28/12	6/03
Year	1987	1985	1987	1986	1996	1987	1991	1987	1986	1988	1988	1995	1987

4.8 Number of cold days (Tmin < -10 °C)



Map 4.8. Stations with number of cold days normals. See station catalogue 4.8.

Temperatures below -10 °C may occur from November to April but are most frequent in January and February. The low temperatures are most frequently recorded at the inland stations in central Jutland, whereas the stations on the west coast are, not surprisingly, seen to be the mildest.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	124	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	124	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	124	THYBORØN	56	42	N	8	13	E	2	1961	1990
06058	124	HVIDE SANDE	56	0	N	8	8	E	3	1990	1997
06060	124	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	124	FSN TIRSTRUP	56	18	N	10	37	E	23	1979	1997
06071	124	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	124	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1969	1990
06096	124	RØMØ/JUVRE	55	11	N	8	34	E	4	1983	1997
06104	124	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	124	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	124	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	124	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	124	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06143	124	LOLLAND FALSTER AIRPORT	54	42	N	11	27	E	5	1985	1997
06151	124	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	124	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	124	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06168	124	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	124	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	124	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	124	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	124	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
06193	124	HAMMER ODDE FYR	55	18	N	14	47	E	11	1971	1990
20060	124	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1961	1990
20590	124	SKØRPING	56	50	N	9	53	E	62	1961	1990
21100	124	VESTERVIG	56	46	N	8	19	E	18	1971	1990
21440	124	TANGE	56	21	N	9	36	E	13	1961	1990
22231	124	ØDUM II	56	18	N	10	8	E	61	1961	1990
23310	124	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	124	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	124	NORDBY	55	26	N	8	24	E	6	1971	1990
26401	124	STORE JYNDEVAD II	54	54	N	9	7	E	15	1987	1997
27080	124	TRANEBJERG	55	51	N	10	36	E	11	1971	1990
28490	124	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	124	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	124	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
29271	124	ALSTEDGÅRD II	55	24	N	11	40	E	45	1987	1997
30110	124	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	124	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1990
31095	124	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	124	NÆSGÅRD	54	52	N	12	7	E	15	1971	1990
32156	124	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 4.8. Element number 124: Number of cold days (Tmin < -10°C).

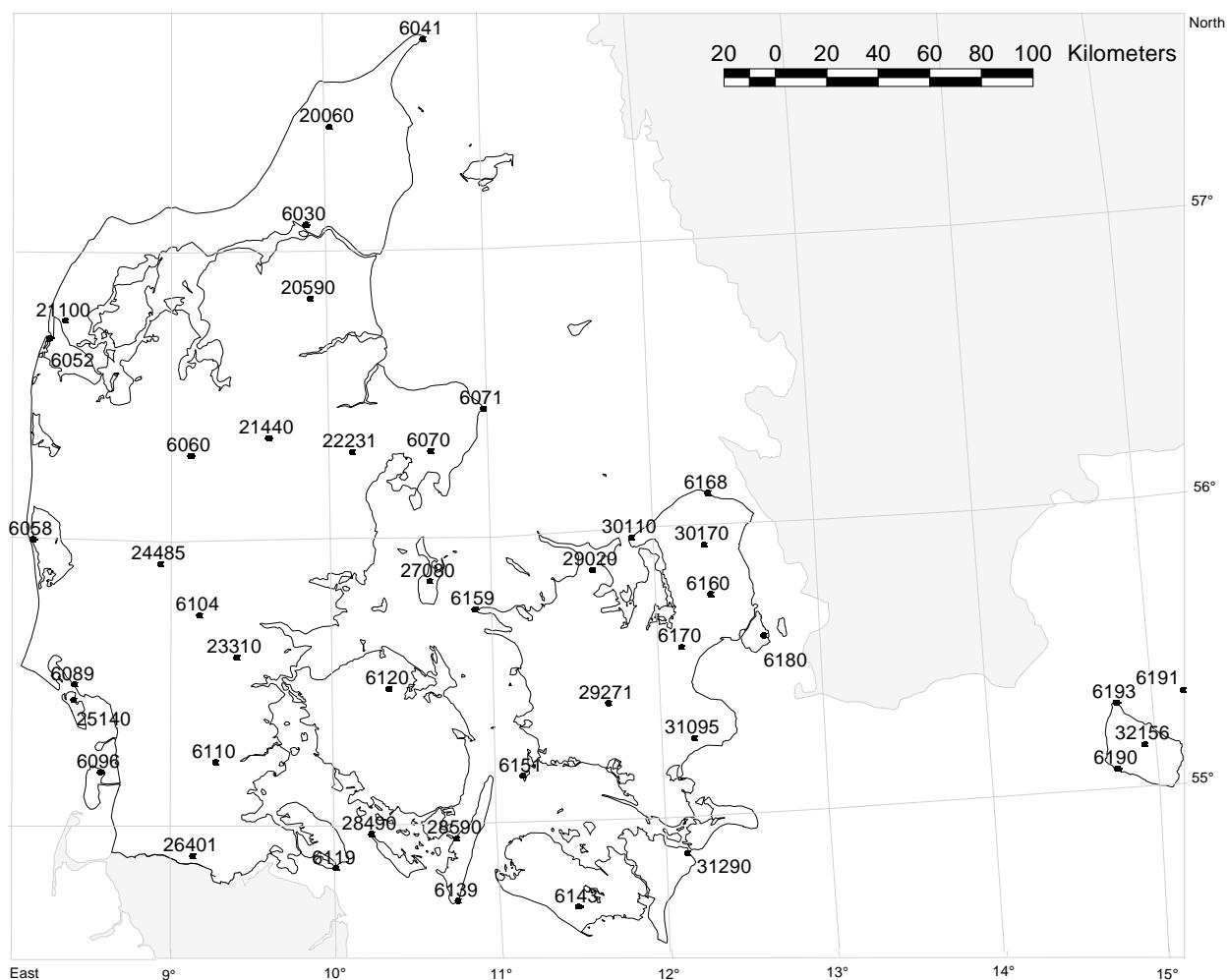
Table 4.8.1. Number of cold days (Tmin < -10 °C). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	3,1	2,8	1,0	0	0	0	0	0	0	0	0,2	1,0	8,1
06041 SKAGEN FYR	0,8	1,1	0,1	0	0	0	0	0	0	0	0	0,1	2,1
06052 THYBORØN	0,5	0,6	0	0	0	0	0	0	0	0	0	0,1	1,2
06060 FSN KARUP	3,8	3,1	1,2	0,1	0	0	0	0	0	0	0,5	2,0	10,7
06071 FORNÆS FYR	1,0	1,1	0	0	0	0	0	0	0	0	0,0	0,1	2,2
06110 FSN SKRYDSTRUP	3,5	2,6	0,8	0	0	0	0	0	0	0	0,4	2,0	9,3
06119 KEGNÆS FYR	0,3	0,6	0,1	0	0	0	0	0	0	0	0	0	1,1
06120 ODENSE LUFTHAVN	2,5	2,1	0,7	0	0	0	0	0	0	0	0,1	1,3	6,7
06139 KELDSNOR FYR	0,3	0,5	0,2	0	0	0	0	0	0	0	0	0	0,9
06151 OMØ FYR	0,6	0,4	0,1	0	0	0	0	0	0	0	0	0	1,1
06159 RØSNÆS FYR	0,2	0,3	0	0	0	0	0	0	0	0	0,0	0	0,5
06160 FSN VÆRLØSE	3,6	3,2	0,9	0	0	0	0	0	0	0	0,3	2,0	9,9
06180 KØBENHAVNS LUFTHAVN	1,8	1,6	0,3	0	0	0	0	0	0	0	0	0,5	4,2
06190 BORNHOLMS LUFTHAVN	1,0	1,5	0,7	0	0	0	0	0	0	0	0,1	0,4	3,7
06191 CHRISTIANSØ FYR	0,1	0,1	0	0	0	0	0	0	0	0	0	0	0,2
20060 HJØRRING VANDVÆRK	3,2	3,5	0,9	0,0	0	0	0	0	0	0	0,2	1,2	9,2
20590 SKØRPING	3,1	2,5	1,0	0	0	0	0	0	0	0	0,2	1,2	8,0
21440 TANGE	3,9	3,5	1,4	0	0	0	0	0	0	0	0,5	2,5	11,9
22231 ØDUM II	3,3	2,6	0,8	0	0	0	0	0	0	0	0,3	1,4	8,4
23310 BRAKKER S	3,3	2,7	0,7	0	0	0	0	0	0	0	0,5	1,5	8,7
28490 SKJOLDNÆS FYR	0,3	0,7	0,1	0	0	0	0	0	0	0	0	0	1,1
28590 RUDKØBING	1,0	1,2	0,2	0	0	0	0	0	0	0	0	0,0	2,4
29020 KOLLEKOLLE	1,5	1,6	0,4	0	0	0	0	0	0	0	0	0,4	3,9
30110 SPODSBJERG FYR	1,2	1,5	0,4	0	0	0	0	0	0	0	0	0,2	3,3
30170 LILLE DYREHAVEGÅRD	2,8	2,8	0,6	0	0	0	0	0	0	0	0	1,0	7,3

Table 4.8.2. Number of cold days (Tmin < -10 °C). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06058 HVIDE SANDE, 1990-97	0,8	0,1	0	0	0	0	0	0	0	0	0	0,9	1,8
06070 FSN TIRSTRUP, 1979-97	3,9	2,8	1,0	0,1	0	0	0	0	0	0	0,2	1,8	9,8
06089 SÆDENSTRAND FYR, 1969-90	1,6	1,5	0,2	0	0	0	0	0	0	0	0,1	0,7	4,1
06096 RØMØ/JUVRE, 1983-97	1,5	1,5	0,2	0	0	0	0	0	0	0	0,1	0,3	3,7
06104 BILLUND LUFTHAVN, 1970-97	2,8	2,2	0,6	0	0	0	0	0	0	0	0,4	1,5	7,5
06143 LOLLAND FALSTER AIRPORT, 1985-97	2,5	2,4	0,7	0	0	0	0	0	0	0	0,1	0,5	6,1
06168 NAKKEHOVED FYR, 1987-97	1,3	0,1	0,6	0	0	0	0	0	0	0	0	0,2	2,2
06170 ROSKILDE LUFTHAVN, 1974-97	2,9	2,1	0,5	0	0	0	0	0	0	0	0,2	1,6	7,3
06193 HAMMER ODDE FYR, 1971-90	0,1	0,1	0,2	0	0	0	0	0	0	0	0	0	0,4
21100 VESTERVIG, 1971-90	2,4	1,9	0,4	0	0	0	0	0	0	0	0,2	1,0	5,8
24485 DØVLING, 1975-97	3,6	2,7	0,8	0	0	0	0	0	0	0	0,4	2,2	9,7
25140 NORDBY, 1971-90	1,8	1,4	0,3	0	0	0	0	0	0	0	0,1	0,7	4,2
26401 STORE JYNDEVAD II, 1987-97	1,2	1,3	0,4	0	0	0	0	0	0	0	0,2	1,1	4,1
27080 TRANEBJERG, 1971-90	0,9	0,9	0,2	0	0	0	0	0	0	0	0	0,4	2,3
29271 ALSTEDGÅRD II, 1987-97	1,8	1,0	0,8	0	0	0	0	0	0	0	0	1,1	4,7
31095 VIVEDE OVERDREV, 1973-91	2,8	2,2	0,7	0	0	0	0	0	0	0	0,2	1,1	6,9
31290 NÆSGÅRD, 1971-90	1,2	1,1	0,4	0	0	0	0	0	0	0	0	0,2	2,8
32156 ØSTERLARS SV, 1985-97	1,6	2,5	0,8	0	0	0	0	0	0	0	0	0,6	5,6

4.9 Number of days with frost ($T_{min} < 0^{\circ}\text{C}$)



Map 4.9. Stations with number of days with frost normals. See station catalogue 4.9.

Frost most frequently occurs during the period December-March. The first frost is most likely in late October/early November, the last frost is most likely in late April. The northern and central parts of Jutland have the greatest number of days with frost, the west coast, central and eastern Denmark having the least.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	125	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	125	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	125	THYBORØN	56	42	N	8	13	E	2	1961	1990
06058	125	HVIDE SANDE	56	0	N	8	8	E	3	1990	1997
06060	125	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	125	FSN TIRSTRUP	56	18	N	10	37	E	23	1979	1997
06071	125	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	125	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1969	1990
06096	125	RØMØ/JUVRE	55	11	N	8	34	E	4	1983	1997
06104	125	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	125	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	125	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	125	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	125	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06143	125	LOLLAND FALSTER AIRPORT	54	42	N	11	27	E	5	1985	1997
06151	125	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	125	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	125	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06168	125	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	125	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	125	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	125	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	125	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
06193	125	HAMMER ODDE FYR	55	18	N	14	47	E	11	1961	1990
20060	125	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1961	1990
20590	125	SKØRPING	56	50	N	9	53	E	62	1961	1990
21100	125	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	125	TANGE	56	21	N	9	36	E	13	1961	1990
22231	125	ØDUM II	56	18	N	10	8	E	61	1961	1990
23310	125	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	125	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	125	NORDBY	55	26	N	8	24	E	6	1971	1990
26401	125	STORE JYNDEVAD II	54	54	N	9	7	E	15	1987	1997
27080	125	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	125	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	125	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	125	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
29271	125	ALSTEDGÅRD II	55	24	N	11	40	E	45	1987	1997
30110	125	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	125	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1990
31095	125	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	125	NÆSGÅRD	54	52	N	12	7	E	15	1971	1990
32156	125	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 4.9. Element number 125: Number of days with frost (Tmin < 0°C).

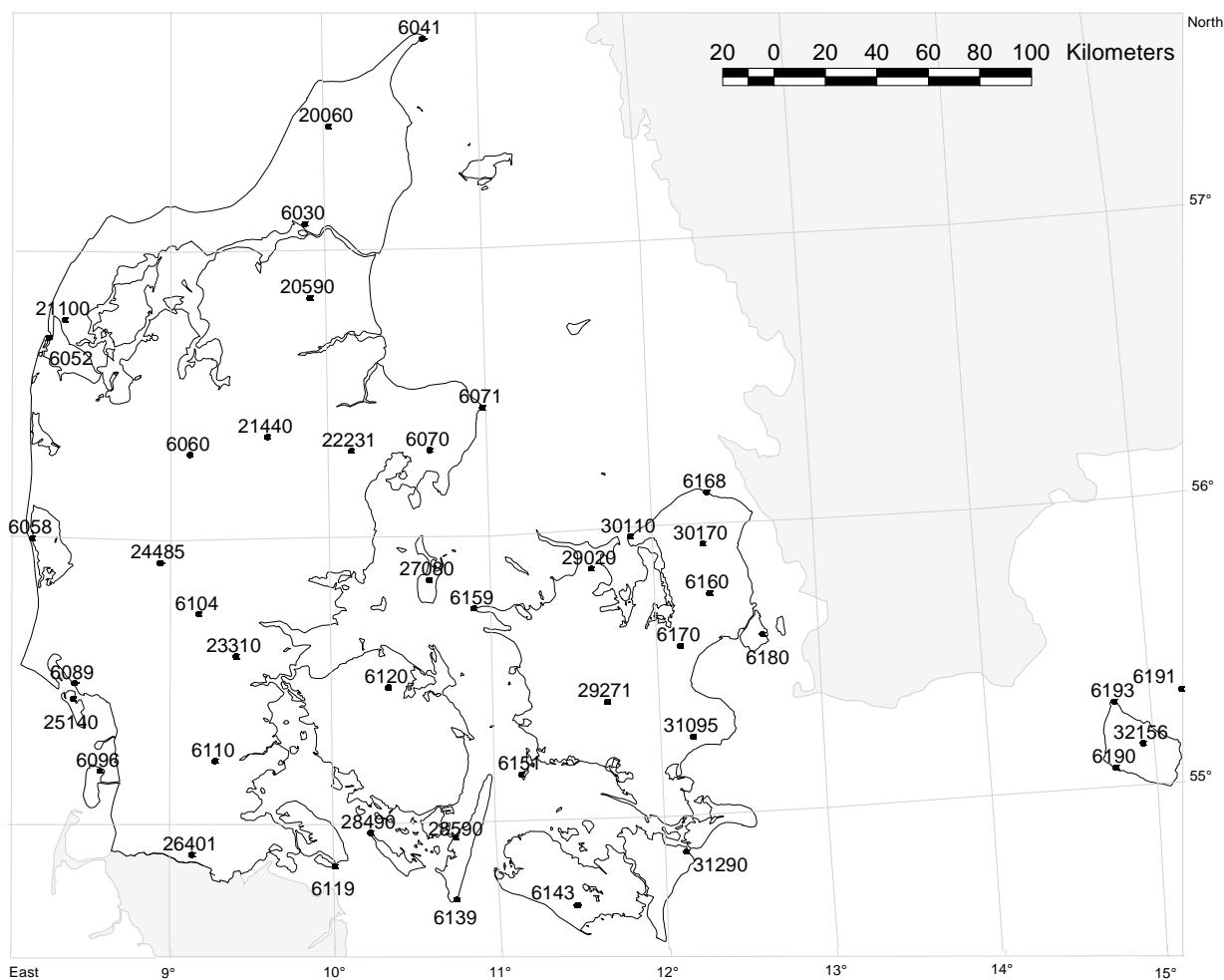
Table 4.9.1. Number of days with frost (Tmin < 0 °C). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	20	20	17	7,7	0,3	0	0	0	0,2	2,5	9,7	17	95
06041 SKAGEN FYR	18	19	15	4,3	0,0	0	0	0	0,0	0,6	4,4	13	73
06052 THYBORØN	14	14	10	1,3	0	0	0	0	0	0	2,0	9,4	51
06060 FSN KARUP	19	19	17	9,5	1,1	0	0	0	0,1	3,4	9,9	17	96
06071 FORNÆS FYR	18	18	14	3,9	0,1	0	0	0	0	0,4	4,8	14	73
06110 FSN SKRYDSTRUP	19	19	16	9,0	1,4	0,1	0	0	0,4	2,9	9,1	17	93
06119 KEGNÆS FYR	16	16	12	2,1	0	0	0	0	0	0	2,5	11	59
06120 ODENSE LUFTHAVN	19	18	15	6,2	0,5	0	0	0	0,2	2,1	7,4	14	83
06139 KELDSNOR FYR	15	16	11	1,5	0	0	0	0	0	0	2,2	10	55
06151 OMØ FYR	16	16	11	1,5	0	0	0	0	0	0,0	2,0	10	56
06159 RØSNÆS FYR	16	16	12	1,4	0	0	0	0	0	0,1	1,5	10	57
06160 FSN VÆRLØSE	20	19	17	8,0	0,5	0	0	0	0,3	2,6	8,1	16	92
06180 KØBENHAVNS LUFTHAVN	19	18	15	5,1	0,2	0	0	0	0	1,0	6,5	15	80
06190 BORNHOLMS LUFTHAVN	18	19	15	7,0	0,8	0	0	0	0,1	1,3	5,2	13	80
06191 CHRISTIANSØ FYR	14	15	11	1,8	0	0	0	0	0	0	1,5	7,5	51
06193 HAMMER ODDE FYR	17	17	13	3,2	0,1	0	0	0	0	0	2,0	10	63
20060 HJØRRING VANDVÆRK	21	20	17	8,2	0,8	0	0	0	0,6	3,4	10	17	98
20590 SKØRPING	21	21	18	9,8	1,2	0	0	0	0,2	2,3	10	19	103
21100 VESTERVIG	18	18	14	5,1	0,3	0	0	0	0,0	1,2	6,0	14	77
21440 TANGE	19	19	17	9,8	2,1	0,1	0	0	1,0	4,9	11	18	102
22231 ØDUM II	21	21	18	7,8	0,4	0	0	0	0,2	1,9	8,9	18	96
23310 BRAKKER S	19	20	17	7,0	0,7	0	0	0	0,0	1,6	8,7	17	91
27080 TRANEBJERG	17	18	13	3,3	0,2	0	0	0	0,2	0,4	4,0	12	68
28490 SKJOLDNÆS FYR	16	17	12	1,6	0	0	0	0	0	0	1,8	11	60
28590 RUDKØBING	18	18	13	2,3	0	0	0	0	0	0,1	3,7	12	67
29020 KOLLEKOLLE	19	18	15	4,0	0,0	0	0	0	0	0,4	5,4	15	77
30110 SPODSBJERG FYR	20	18	15	3,6	0	0	0	0	0	0,2	4,4	14	75
30170 LILLE DYREHAVEGÅRD	21	19	16	6,8	0,2	0	0	0	0	1,2	7,8	17	88

Table 4.9.2. Number of days with frost (Tmin < 0 °C). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06058 HVIDE SANDE, 1990-97	13	13	7,8	1,4	0	0	0	0	0	0,4	5,5	12	52
06070 FSN TIRSTRUP, 1979-97	19	18	16	11	2,3	0,1	0	0	0,8	4,5	9,7	15	97
06089 SÆDENSTRAND FYR, 1969-90	15	16	12	4,0	0,0	0	0	0	0	0,4	4,7	11	63
06096 RØMØ/JUVRE, 1983-97	14	16	12	2,7	0	0	0	0	0	0,9	7,1	12	64
06104 BILLUND LUFTHAVN, 1970-97	19	19	16	9,8	1,5	0,2	0	0	0,5	3,9	10	16	95
06143 LOLLAND FALSTER AIRPORT, 1985-97	15	15	13	5,0	0,2	0	0	0	0	1,9	8,2	13	72
06168 NAKKEHOVED FYR, 1987-97	16	14	13	3,0	0,1	0	0	0	0	1,1	6,7	13	66
06170 ROSKILDE LUFTHAVN, 1974-97	19	19	16	8,4	0,9	0	0	0	0,3	2,7	8,8	15	89
24485 DØVLING, 1975-97	18	19	15	9,7	3,3	0,5	0	0,0	1,0	4,4	11	17	99
25140 NORDBY, 1971-90	15	16	11	3,5	0,1	0	0	0	0	1,1	5,8	11	63
26401 STORE JYNDEVAD II, 1987-97	15	14	13	7,1	0,8	0	0	0	0,3	3,8	10	15	81
29271 ALSTEDGÅRD II, 1987-97	16	15	14	5,4	0	0	0	0	0	2,5	9,7	14	76
31095 VIVEDE OVERDREV, 1973-91	17	18	13	6,2	0,4	0,1	0	0	0,2	1,8	6,6	13	77
31290 NÆSGÅRD, 1971-90	17	17	12	2,7	0	0	0	0	0	0,4	4,9	12	66
32156 ØSTERLARS SV, 1985-97	19	18	17	8,2	0,7	0	0	0	0,1	2,4	9,1	15	89

4.10 Number of tropical nights ($T_{min} > 20^{\circ}\text{C}$)



Map 4.10. Stations with number of tropical nights normals. See station catalogue 4.10.

Only very few tropical nights occurred during the period 1961-1990. They were much more frequent during the period 1991-1997, as can be seen from the table of the provisory normals. Most extreme was August 1997 (the month with the highest nationwide average temperature ever recorded in Denmark by DMI). The coastal stations are likeliest to experience tropical nights. This particularly applies to stations on eastern coasts as the heat generally comes from the east and with easterly winds. For example, the station on the small island of Christiansø in the Baltic Sea (station 06191) had an absolute maximum temperature during 1961-1990 of only 29.1°C , but was nonetheless the station with the most tropical nights during that same period. Outside the standard period Christiansø saw 14 tropical nights during the record month of August 1997 and 10 tropical nights during July 1994.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	126	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	126	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	126	THYBORØN	56	42	N	8	13	E	2	1961	1990
06058	126	HVIDE SANDE	56	0	N	8	8	E	3	1990	1997
06060	126	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	126	FSN TIRSTRUP	56	18	N	10	37	E	23	1961	1990
06071	126	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	126	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1969	1990
06096	126	RØMØ/JUVRE	55	11	N	8	34	E	4	1983	1997
06104	126	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	126	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	126	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	126	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	126	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06143	126	LOLLAND FALSTER AIRPORT	54	42	N	11	27	E	5	1985	1997
06151	126	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	126	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	126	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06168	126	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	126	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	126	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	126	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	126	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
06193	126	HAMMER ODDE FYR	55	18	N	14	47	E	11	1971	1990
20060	126	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1971	1990
20590	126	SKØRPING	56	50	N	9	53	E	62	1971	1990
21100	126	VESTERVIG	56	46	N	8	19	E	18	1971	1990
21440	126	TANGE	56	21	N	9	36	E	13	1971	1990
22231	126	ØDUM II	56	18	N	10	8	E	61	1971	1990
23310	126	BRAKKER S	55	35	N	9	24	E	58	1971	1990
24485	126	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	126	NORDBY	55	26	N	8	24	E	6	1971	1990
26401	126	STORE JYNDEVAD II	54	54	N	9	7	E	15	1987	1997
27080	126	TRANEBJERG	55	51	N	10	36	E	11	1971	1990
28490	126	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1971	1990
28590	126	RUDKØBING	54	57	N	10	43	E	10	1971	1990
29020	126	KOLLEKOLLE	55	52	N	11	36	E	30	1971	1990
29271	126	ALSTEDGÅRD II	55	24	N	11	40	E	45	1987	1997
30110	126	SPODSBJERG FYR	55	59	N	11	51	E	34	1971	1990
30170	126	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1971	1990
31095	126	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	126	NÆSGÅRD	54	52	N	12	7	E	15	1971	1990
32156	126	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 4.10. Element number 126: Number of tropical nights (Tmin > 20 °C).

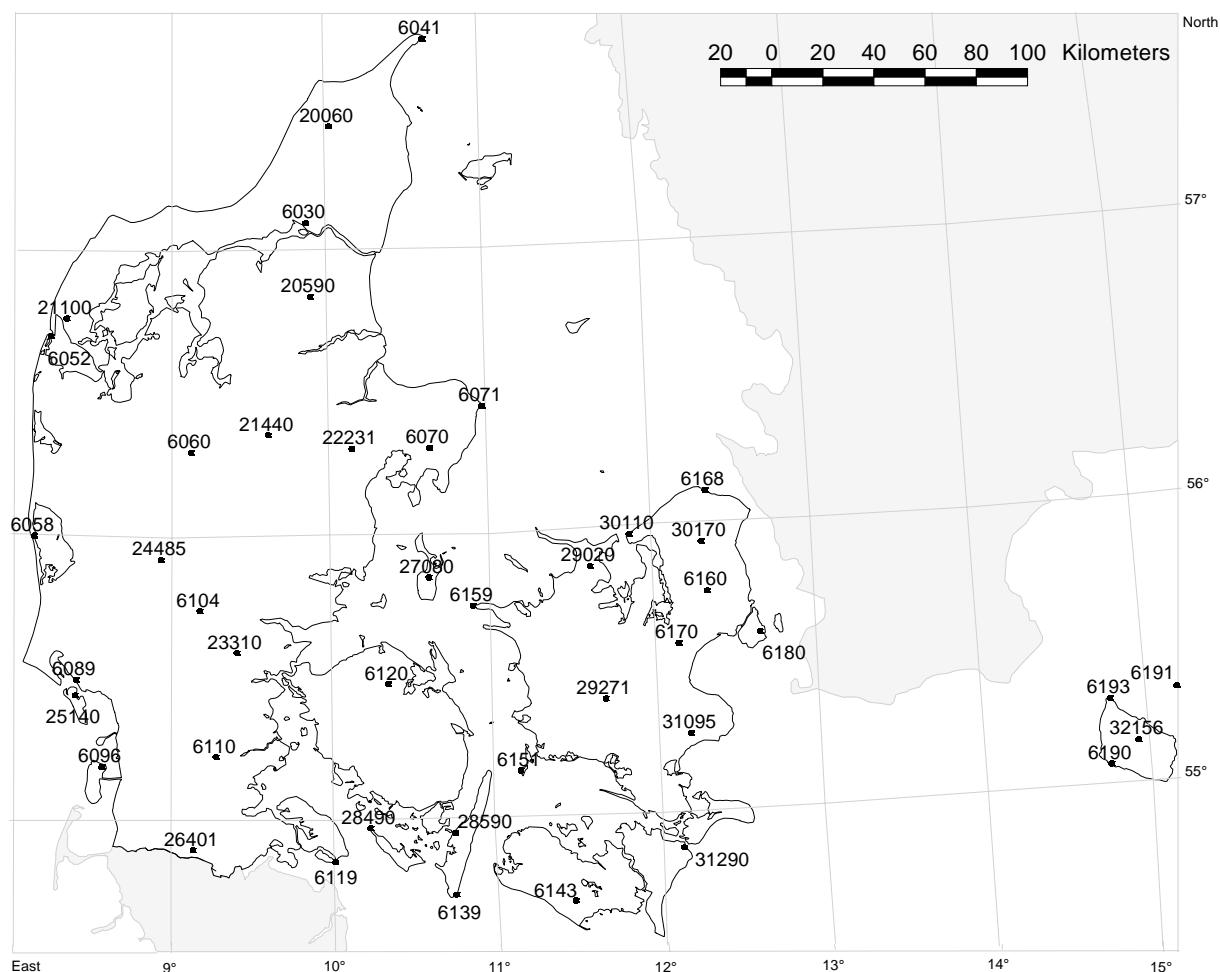
Table 4.10.1. Number of tropical nights ($T_{min} > 20^{\circ}\text{C}$). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	0	0	0	0	0	0	0	0	0	0	0	0	0
06041 SKAGEN FYR	0	0	0	0	0	0	0	0,1	0	0	0	0	0,07
06052 THYBORØN	0	0	0	0	0	0	0	0,1	0	0	0	0	0,13
06060 FSN KARUP	0	0	0	0	0	0	0	0	0	0	0	0	0
06070 FSN TIRSTRUP	0	0	0	0	0	0	0	0	0	0	0	0	0
06071 FORNÆS FYR	0	0	0	0	0	0	0	0,1	0	0	0	0	0,13
06110 FSN SKRYDSTRUP	0	0	0	0	0	0	0	0	0	0	0	0	0
06119 KEGNÆS FYR	0	0	0	0	0	0	0	0,0	0	0	0	0	0,03
06120 ODENSE LUFTHAVN	0	0	0	0	0	0	0	0	0	0	0	0	0
06139 KELDSNOR FYR	0	0	0	0	0	0	0	0,2	0	0	0	0	0,17
06151 OMØ FYR	0	0	0	0	0	0	0	0,0	0	0	0	0	0,03
06159 RØSNÆS FYR	0	0	0	0	0	0	0	0,1	0	0	0	0	0,13
06160 FSN VÆRLØSE	0	0	0	0	0	0	0	0	0	0	0	0	0
06180 KØBENHAVNS LUFTHAVN	0	0	0	0	0	0	0	0	0	0	0	0	0
06190 BORNHOLMS LUFTHAVN	0	0	0	0	0	0	0	0,1	0	0	0	0	0,13
06191 CHRISTIANSØ FYR	0	0	0	0	0	0	0,2	0,3	0	0	0	0	0,47

Table 4.10.2. Number of tropical nights ($T_{min} > 20^{\circ}\text{C}$). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06058 HVIDE SANDE, 1990-97	0	0	0	0	0	0	0,5	0	0	0	0	0	0,50
06089 SÆDENSTRAND FYR, 1969-90	0	0	0	0	0	0	0	0,1	0	0	0	0	0,09
06096 RØMØ/JUVRE, 1983-97	0	0	0	0	0	0	0,1	0	0	0	0	0	0,07
06104 BILLUND LUFTHAVN, 1970-97	0	0	0	0	0	0	0	0	0	0	0	0	0
06143 LOLLAND FALSTER AIRPORT, 1985-97	0	0	0	0	0	0	0,2	0,1	0	0	0	0	0,31
06168 NAKKEHOVED FYR, 1987-97	0	0	0	0	0	0	0,3	0,2	0	0	0	0	0,45
06170 ROSKILDE LUFTHAVN, 1974-97	0	0	0	0	0	0	0	0,0	0	0	0	0	0,04
06193 HAMMER ODDE FYR, 1971-90	0	0	0	0	0	0	0,1	0,1	0	0	0	0	0,10
20060 HJØRRING VANDVÆRK, 1971-90	0	0	0	0	0	0	0	0	0	0	0	0	0
20590 SKØRPING, 1971-90	0	0	0	0	0	0	0	0	0	0	0	0	0
21100 VESTERVIG, 1971-90	0	0	0	0	0	0	0	0	0	0	0	0	0
21440 TANGE, 1971-90	0	0	0	0	0	0	0	0	0	0	0	0	0
22231 ØDUM II, 1971-90	0	0	0	0	0	0	0	0	0	0	0	0	0
23310 BRAKKER S, 1971-90	0	0	0	0	0	0	0	0	0	0	0	0	0
24485 DØVLING, 1975-97	0	0	0	0	0	0	0	0	0	0	0	0	0
25140 NORDBY, 1971-90	0	0	0	0	0	0	0	0,1	0	0	0	0	0,10
26401 STORE JYNDEVAD II, 1987-97	0	0	0	0	0	0	0,1	0	0	0	0	0	0,09
27080 TRANEBJERG, 1971-90	0	0	0	0	0	0	0	0	0	0	0	0	0
28490 SKJOLDNÆS FYR, 1971-90	0	0	0	0	0	0	0,1	0,3	0	0	0	0	0,35
28590 RUDKØBING, 1971-90	0	0	0	0	0	0	0	0,1	0	0	0	0	0,05
29020 KOLLEKOLLE, 1971-90	0	0	0	0	0	0	0	0,1	0	0	0	0	0,05
29271 ALSTEDGÅRD II, 1987-97	0	0	0	0	0	0	0	0,1	0	0	0	0	0,09
30110 SPODSBJERG FYR, 1971-90	0	0	0	0	0	0	0,1	0,1	0	0	0	0	0,15
30170 LILLE DYREHAVEGÅRD, 1971-90	0	0	0	0	0	0	0	0	0	0	0	0	0
31095 VIVEDE OVERDREV, 1973-91	0	0	0	0	0	0	0	0	0	0	0	0	0
31290 NÆSGÅRD, 1971-90	0	0	0	0	0	0	0	0	0	0	0	0	0
32156 ØSTERLARS SV, 1985-97	0	0	0	0	0	0	0,1	0	0	0	0	0	0,08

4.11 Heating degree days



Map 4.11. Stations with heating degree days normals. See station catalogue 4.11.

For Denmark, heating degree days are calculated for each day as 17 minus the day's mean temperature when the mean temperature is below 17 °C. The monthly values shown here are the sums of these *uncorrected* heating degree days. They are called uncorrected because no correction for wind or sunshine has been made.

It is the typical inland stations - Karup (station 06060), Ålborg (station 06030), Skrydstrup (station 06110) and Værløse (station 06160), that experience the largest number of heating degree days, and the coastal stations - Thyborøn (station 06052) on the west coast and Omø Lighthouse (station 06151) in the Great Belt - that experience the fewest.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	147	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	147	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	147	THYBORØN	56	42	N	8	13	E	2	1961	1990
06058	147	HVIDE SANDE	56	0	N	8	8	E	3	1990	1997
06060	147	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	147	FSN TIRSTRUP	56	18	N	10	37	E	23	1979	1997
06071	147	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	147	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1969	1990
06096	147	RØMØ/JUVRE	55	11	N	8	34	E	4	1983	1997
06104	147	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	147	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	147	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	147	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	147	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06143	147	LOLLAND FALSTER AIRPORT	54	42	N	11	27	E	5	1985	1997
06151	147	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	147	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	147	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06168	147	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	147	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	147	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	147	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	147	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
06193	147	HAMMER ODDE FYR	55	18	N	14	47	E	11	1971	1990
20060	147	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1971	1990
20590	147	SKØRPING	56	50	N	9	53	E	62	1971	1990
21100	147	VESTERVIG	56	46	N	8	19	E	18	1971	1990
21440	147	TANGE	56	21	N	9	36	E	13	1971	1990
22231	147	ØDUM II	56	18	N	10	8	E	61	1971	1990
23310	147	BRAKKER S	55	35	N	9	24	E	58	1971	1990
24485	147	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	147	NORDBY	55	26	N	8	24	E	6	1971	1990
26401	147	STORE JYNDEVAD II	54	54	N	9	7	E	15	1987	1997
27080	147	TRANEBJERG	55	51	N	10	36	E	11	1971	1990
28490	147	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1971	1990
28590	147	RUDKØBING	54	57	N	10	43	E	10	1971	1990
29020	147	KOLLEKOLLE	55	52	N	11	36	E	30	1971	1990
29271	147	ALSTEDGÅRD II	55	24	N	11	40	E	45	1987	1997
30110	147	SPODSBJERG FYR	55	59	N	11	51	E	34	1971	1990
30170	147	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1971	1990
31095	147	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	147	NÆSGÅRD	54	52	N	12	7	E	15	1971	1990
32156	147	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 4.11. Element number 147: Heating degree days (sum of 17 °C –Tday).

Table 4.11.1. Heating degree days (sum of 17 °C -Tday). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	538	492	463	341	195	88	56	60	141	253	381	487	3495
06041 SKAGEN FYR	504	476	464	353	212	88	49	48	119	223	342	444	3324
06052 THYBORØN	483	450	439	333	200	97	56	43	101	204	318	421	3144
06060 FSN KARUP	533	484	460	339	194	97	68	69	143	252	380	487	3506
06071 FORNÆS FYR	508	473	460	347	207	84	52	50	122	228	349	455	3336
06110 FSN SKRYDSTRUP	529	480	456	338	200	101	71	69	140	249	372	482	3486
06119 KEGNÆS FYR	503	466	454	339	200	82	50	40	101	211	335	445	3228
06120 ODENSE LUFTHAVN	517	472	447	323	175	76	49	49	122	235	359	446	3271
06139 KELDSNOR FYR	504	466	456	341	203	75	39	31	91	205	328	442	3180
06151 OMØ FYR	504	467	458	342	197	73	37	31	93	207	327	442	3179
06159 RØSNÆS FYR	502	469	462	346	202	80	44	37	101	211	329	440	3224
06160 FSN VÆRLØSE	540	491	466	334	184	76	48	51	133	247	375	489	3432
06180 KØBENHAVNS LUFTHAVN	524	483	463	340	189	69	39	40	115	232	358	470	3324
06190 BORNHOLMS LUFTHAVN	521	485	476	360	213	83	38	36	109	231	348	446	3346
06191 CHRISTIANSØ FYR	492	464	471	386	268	109	39	27	94	206	325	432	3312

Table 4.11.2. Heating degree days (sum of 17 °C -Tday). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06058 HVIDE SANDE, 1990-97	459	425	414	317	208	114	49	29	113	218	356	430	3130
06070 FSN TIRSTRUP, 1979-97	522	478	454	335	193	96	46	54	149	259	378	469	3434
06089 SÆDENSTRAND FYR, 1969-90	501	464	442	330	178	90	48	39	109	222	339	439	3200
06096 RØMØ/JUVRE, 1983-97	472	453	425	314	186	103	45	39	118	220	359	433	3167
06104 BILLUND LUFTHAVN, 1970-97	523	478	453	337	194	107	64	65	156	269	385	463	3493
06143 LOLLAND FALSTER AIRPORT, 1985-97	494	466	431	313	178	89	36	41	124	237	371	449	3230
06168 NAKKEHOVED FYR, 1987-97	489	441	437	312	183	84	32	36	126	247	373	453	3213
06170 ROSKILDE LUFTHAVN, 1974-97	514	480	452	324	179	80	37	40	134	251	374	448	3313
06193 HAMMER ODDE FYR, 1971-90	492	461	462	372	242	104	37	28	107	221	332	429	3287
20060 HJØRRING VANDVÆRK, 1971-90	527	491	472	349	189	98	56	68	162	274	381	467	3533
20590 SKØRPING, 1971-90	529	485	466	346	193	106	62	70	166	273	389	474	3558
21100 VESTERVIG, 1971-90	498	459	448	340	194	109	64	58	134	240	344	432	3320
21440 TANGE, 1971-90	520	478	458	340	183	95	58	70	166	272	379	460	3478
22231 ØDUM II, 1971-90	529	486	467	345	191	105	66	69	159	269	383	470	3537
23310 BRAKKER S, 1971-90	521	479	457	336	188	108	68	64	150	261	375	461	3466
24485 DØVLING, 1975-97	517	479	454	335	190	109	65	68	159	266	378	476	3495
25140 NORDBY, 1971-90	491	455	434	323	174	92	50	41	111	226	337	427	3161
26401 STORE JYNDEVAD II, 1987-97	477	429	419	305	185	101	45	52	131	254	376	458	3231
27080 TRANEBJERG, 1971-90	497	463	448	327	180	82	43	39	118	231	344	435	3207
28490 SKJOLDNÆS FYR, 1971-90	493	461	447	331	181	81	42	30	100	215	330	426	3138
28590 RUDKØBING, 1971-90	501	462	441	323	174	82	42	35	109	225	341	436	3172
29020 KOLLEKOLLE, 1971-90	517	479	458	335	175	82	43	43	131	247	362	456	3329
29271 ALSTEDGÅRD II, 1987-97	498	444	441	313	186	93	38	43	133	261	385	465	3299
30110 SPODSBJERG FYR, 1971-90	515	479	461	339	179	80	38	36	120	237	353	452	3287
30170 LILLE DYREHAVEGÅRD, 1971-90	527	485	458	327	165	78	39	45	138	253	374	466	3355
31095 VIVEDE OVERDREV, 1973-91	514	481	453	338	193	89	45	46	130	250	367	464	3371
31290 NÆSGÅRD, 1971-90	509	469	450	338	197	86	42	38	120	233	356	449	3286
32156 ØSTERLARS SV, 1985-97	524	487	474	352	219	112	52	49	148	261	388	471	3539

4.12 Tables for 9 selected stations

For the nine stations marked on the map below the following special tables have been compiled: “Frequency and length of frost periods”, “Average date of first and last frost ($T_{min} < 0^{\circ}\text{C}$) and average length of frost-free period” and “Average date of first ‘summer day’ ($T_{max} > 25^{\circ}\text{C}$), 1961-1990”.



Map 4.12. The 9 selected stations of subsection 4.12.

4.12.1 Length and frequency of frost periods

The tables below list the normal frequency of frost periods encountered at nine different stations during the 30 winters from 1960-61 to 1989-90. A day of frost is a day with **minimum** temperature below 0°C at 06:00 hours or during the preceding 24 hours (to follow the convention of the meteorological day that lasts 24 hours from 06:00 hours UTC until 06:00 hours UTC). The length of the frost period is stated by the maximum number of consecutive frost days. The average number of frost periods of a given length is listed for each month. Many frost periods extend to more than one month, either because they take place just at the change of month or because they last more than 30 or 60 days, but the periods are always and only listed under the month of the last day in the frost period.

Table 4.12.1. Frequency and length of frost periods. 06030 Flyvestation Ålborg.

Standard Normal 1960/61 to 1989/90.

A frost period is the given maximum number of consecutive days with minimum temperature <0°C. The periods are listed below the month of the last day in the periods.

No. of days in period	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	TOTAL	NORMAL ‘60/61-‘89/90	WINTER
1	,1	,4	,8	,9	,7	,4	,7	1,5	,2	172		5,73
2	,0	,5	,7	,9	,5	,4	,6	,7	,1	130		4,33
3		,0	,5	,4	,4	,4	,3	,5	,1	75		2,50
4			,2	,3	,2	,1	,2	,2		37		1,23
5				,0	,2	,2	,1	,2	,1	23		,77
6					,0	,2	,1		,1	22		,73
7						,0	,1	,1	,1	14		,47
8							,0	,1	,1	11		,37
9								,1	,0	8		,27
10									,1	5		,17
11										5		,17
12										8		,27
13										6		,20
14										2		,07
15										2		,07
16										1		,03
17										3		,10
18										4		,13
19										3		,10
20										2		,07
22										3		,10
24										1		,03
25										2		,07
26										1		,03
29										2		,07
31										1		,03
33										1		,03
34										2		,07
35										2		,07
37										1		,03
39										1		,03
40										1		,03
41										3		,10
45										1		,03
48										1		,03
52										1		,03
55										1		,03
62										1		,03

Table 4.12.2. Frequency and length of frost periods. 06052 Thyborøn.

Standard Normal 1960/61 to 1989/90.

A frost period is the given maximum number of consecutive days with minimum temperature <0°C. The periods are listed below the month of the last day in the periods.

No. of days in period	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	TOTAL	NORMAL WINTER <small>*60/61-'89/90</small>
1		,2	,8	,5	,5	,4	,2			78	2,60
2		,3	,4	,4	,4	,5	,2			65	2,17
3		,1	,1	,5	,2	,3	,0			35	1,17
4			,5	,2	,1	,2	,0			29	,97
5				,2	,1	,1	,2			19	,63
6					,2	,1	,1	,0		16	,53
7					,1	,0	,1	,1		9	,30
8					,0	,1	,0	,1		8	,27
9						,0	,1		,0	5	,17
10							,1	,0	,1	7	,23
11								,0		1	,03
12									,0	1	,03
13								,1	,0	4	,13
14								,0	,0	3	,10
15									,0	2	,07
16									,1	2	,07
17								,0	,0	3	,10
18									,0	1	,03
19									,1	2	,07
20									,0	3	,10
21									,1	3	,10
23									,0	1	,03
27									,0	1	,03
28									,0	2	,07
30									,0	1	,03
33									,0	1	,03
38										,0	,03
51										,0	,03

Table 4.12.3. Frequency and length of frost periods. 06060 Flyvestation Karup.

Standard Normal 1960/61 to 1989/90.

A frost period is the given maximum number of consecutive days with minimum temperature <0°C. The periods are listed below the month of the last day in the periods.

No. of days in period	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	TOTAL ‘60/61-‘89/90	NORMAL WINTER
1	,1	,3	,7	,7	,7	,3	,6	1,6	,7	169	5,63
2		,5	,6	,6	,7	,5	,6	,8	,1	132	4,40
3		,1	,4	,4	,3	,3	,2	,4	,1	69	2,30
4		,2	,3	,5	,3	,2	,3	,3	,0	61	2,03
5		,0	,2	,2	,1	,1	,2	,3		34	1,13
6		,1	,1	,3	,1	,1	,2	,1		28	,93
7				,0	,1	,1	,2	,1		12	,40
8		,0	,0	,1	,1	,1	,1	,1		14	,47
9				,0		,0	,0	,1		8	,27
10				,0	,1		,1	,0	,0	8	,27
11					,1	,0	,1	,0		6	,20
12						,0	,1	,0	,0	5	,17
13						,0	,1	,0	,0	6	,20
14							,1	,0	,0	4	,13
15							,0	,0		2	,07
16							,0	,0		3	,10
17							,0	,0		4	,13
18							,0	,0		2	,07
19								,0		1	,03
20							,0	,1	,0	4	,13
21							,1	,0		3	,10
22							,0			1	,03
23								,0	,1	3	,10
24								,0		2	,07
25							,0			1	,03
27							,0			1	,03
29									,1	2	,07
30									,0	1	,03
31									,0	1	,03
34								,1		3	,10
36									,0	1	,03
39								,0		2	,07
40									,0	1	,03
41								,0		1	,03
48									,0	1	,03

Table 4.12.4. Frequency and length of frost periods. 06110 Flyvestation Skrydstrup.

Standard Normal 1960/61 to 1989/90.

A **frost period** is the given maximum number of consecutive days with minimum temperature <0°C. The periods are listed below the month of the last day in the periods.

No. of days in period												'60/61-'89/90	NORMAL WINTER
	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL		
1	,1	,3	1,0	,9	,7	,5	,7	1,3	,8	,1	194		6,47
2	,1	,7	,7	1,2	,6	,6	,6	,9	,2		165		5,50
3		,2	,5	,4	,4	,3	,4	,4	,1		79		2,63
4		,1	,3	,3	,2	,2	,3	,4	,0		59		1,97
5			,2	,1	,1		,2	,2			27		,90
6			,0	,1	,1		,1	,0	,0		16		,53
7			,1		,1		,1	,2			18		,60
8			,1	,1	,0			,1			8		,27
9				,2	,1			,1	,1		15		,50
10				,0	,0	,0					3		,10
11				,0	,1	,0		,0			5		,17
12				,0	,0	,0		,1	,0		6		,20
13				,0	,1	,1		,0			7		,23
14				,0			,0	,0			3		,10
15					,0	,0	,0				3		,10
16					,0	,0	,1				4		,13
17					,0		,0				2		,07
18						,1	,0	,0			5		,17
19								,0			1		,03
20						,0		,0			2		,07
21							,1	,0	,0		4		,13
22								,0			1		,03
23						,0			,0		2		,07
24							,0				1		,03
26							,0				1		,03
29								,0			1		,03
30								,0			1		,03
34									,0		1		,03
35									,0		1		,03
39								,0			2		,07
40									,0		1		,03
51									,0		1		,03
52									,0		1		,03
56									,0		1		,03

Table 4.12.5. Frequency and length of frost periods. 06120 Odense Lufthavn.

Standard Normal 1960/61 to 1989/90.

A **frost period** is the given maximum number of consecutive days with minimum temperature <0°C. The periods are listed below the month of the last day in the periods.

No. of days in period	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	TOTAL	NORMAL '60/61-'89/90	WINTER
1	,0	,4	,9	,9	,6	,5	,6	1,3	,3	167	5,57	
2		,5	,6	1,1	,6	,5	,7	,6	,1	137	4,57	
3		,1	,2	,5	,3	,2	,3	,5	,0	62	2,07	
4		,0	,1	,4	,2	,1	,4	,3		44	1,47	
5		,0	,1	,3	,0	,2	,2	,1		32	1,07	
6			,1	,2	,1	,0	,1	,1		15	,50	
7			,1	,0	,1	,1	,2			13	,43	
8			,0	,1	,0	,1	,0	,1		9	,30	
9				,1	,1	,0		,0		6	,20	
10					,1	,1	,1			6	,20	
11					,0	,1	,0			4	,13	
12					,0	,0	,1			5	,17	
13						,1	,1	,1		7	,23	
14					,0	,0	,0			3	,10	
15								,0		1	,03	
16							,0	,0		3	,10	
17								,0		1	,03	
18							,0	,1		3	,10	
19								,1		3	,10	
20								,0		1	,03	
21								,1		3	,10	
22								,0		2	,07	
23								,0		3	,10	
24								,0		2	,07	
25								,0		1	,03	
29								,0		2	,07	
32									,0	1	,03	
33								,0		1	,03	
34								,0		1	,03	
35									,0	1	,03	
38								,0		1	,03	
39									,0	1	,03	
40								,0		2	,07	
58									,0	1	,03	

Table 4.12.6. Frequency and length of frost periods. 06139 Keldsnor Fyr.

Standard Normal 1960/61 to 1989/90.

A **frost period** is the given maximum number of consecutive days with minimum temperature <0°C. The periods are listed below the month of the last day in the periods.

No. of days in period	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	TOTAL	NORMAL '60/61-'89/90	WINTER
										'60/61-'89/90		
1			,4	,6	,4	,4	,6	,2		77		2,57
2			,3	,6	,7	,3	,5	,2		76		2,53
3			,1	,3	,2	,3	,3	,1		42		1,40
4				,1	,1	,3	,3	,1		26		,87
5					,2	,1	,1	,2	,1	18		,60
6						,1	,1	,1		13		,43
7						,1	,1	,1		9		,30
8								,0		3		,10
9										5		,17
10										1		,03
11										2		,07
12										2		,07
13										3		,10
14										6		,20
16										3		,10
17										5		,17
18										1		,03
21										2		,07
23										2		,07
24										1		,03
26										1		,03
27										1		,03
29										1		,03
32										1		,03
33										1		,03
35										2		,07
51										1		,03
52										1		,03
79										1		,03

Table 4.12.7 Frequency and length of frost periods. 06160 Flyvestation Værløse

Standard Normal 1960/61 to 1989/90.

A **frost period** is the given maximum number of consecutive days with minimum temperature <0°C. The periods are listed below the month of the last day in the periods.

No. of days in period	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	TOTAL '60/61-'89/90	NORMAL WINTER
	,1	,4	,8	,9	,8	,5	,7	1,4	,3	181	6,03
2	,1	,3	,8	1,0	,7	,2	,7	1,0	,1	145	4,83
3		,2	,3	,4	,3	,2	,4	,4	,0	70	2,33
4		,1	,3	,2	,2	,2	,4	,3		45	1,50
5		,1	,0	,2	,2	,0	,2	,0		22	,73
6			,1	,2	,1	,1	,1	,1		21	,70
7			,0	,1	,1		,1	,1		11	,37
8			,0	,1	,0	,1		,1		9	,30
9			,0	,0	,1	,1	,1	,0		11	,37
10				,1		,1	,1	,1		12	,40
11					,0	,1				3	,10
12						,0	,0			4	,13
13						,1	,0	,1		6	,20
14							,1	,1		4	,13
15						,0		,0		3	,10
16							,0			2	,07
17							,0	,0	,0	3	,10
18							,1	,0	,0	4	,13
19							,0	,0	,0	3	,10
20							,0			1	,03
21							,0			1	,03
22							,0			1	,03
23							,0			2	,07
24							,0	,1		4	,13
26								,0		2	,07
27							,0			1	,03
28								,0		1	,03
29									,0	1	,03
30								,0		2	,07
32									,1	2	,07
34								,0		1	,03
36									,0	1	,03
39									,0	1	,03
49									,0	1	,03
55									,0	1	,03
83									,0	1	,03

Table 4.12.8. Frequency and length of frost periods. 06180 Københavns Luft-havn

Standard Normal 1960/61 to 1989/90.

A **frost period** is the given maximum number of consecutive days with minimum temperature <0°C. The periods are listed below the month of the last day in the periods.

No. of days in period	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	TOTAL '60/61-'89/90	NORMAL WINTER
1		,3	,8	1,1	,6	,5	,9	1,4	,1	171	5,70
2		,1	,6	1,0	,6	,2	,4	,6	,0	108	3,60
3			,2	,5	,4	,3	,4	,4		65	2,17
4		,0	,2	,2	,2	,2	,2	,1		35	1,17
5			,1	,2	,1	,1	,2	,1		23	,77
6		,0	,0	,2	,2	,1	,1	,1		20	,67
7				,1	,1	,0	,1	,1		13	,43
8				,1	,0	,1	,1	,0		10	,33
9			,0	,1	,1	,0	,1	,0		11	,37
10				,1	,1	,1	,1			10	,33
11					,0		,0			2	,07
12					,0	,0		,1		4	,13
13						,0	,1	,0		5	,17
14			,0					,0		2	,07
15								,0		1	,03
16						,0		,0		2	,07
17				,0			,1	,0		5	,17
18					,1					2	,07
19				,0			,0			2	,07
20						,0				1	,03
21							,0			1	,03
22					,0	,0				2	,07
23					,0		,0			2	,07
24								,0		1	,03
25							,0			1	,03
27					,0					1	,03
29						,0		,0		2	,07
30					,1					2	,07
36								,0		1	,03
39								,0		1	,03
40							,0			1	,03
41								,0		1	,03
51								,0		1	,03
55								,0		1	,03
80								,0		1	,03

Table 4.12.9 Frequency and length of frost periods. 06190 Bornholms Lufthavn

Standard Normal 1960/61 to 1989/90.

A **frost period** is the given maximum number of consecutive days with minimum temperature <0°C. The periods are listed below the month of the last day in the periods.

No. of days in period	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	TOTAL '60/61-'89/90	NORMAL WINTER
1	,0	,4	1,2	1,4	,5	,6	1,0	1,9	,3	220	7,33
2		,2	,4	,8	,6	,3	,6	1,0	,2	124	4,13
3		,0	,2	,5	,3	,2	,2	,5	,0	59	1,97
4		,0	,1	,4	,2	,1	,2	,1		35	1,17
5			,1	,2	,1	,1	,2	,1		25	,83
6				,1	,1	,0	,2	,1		17	,57
7					,1	,1	,0			11	,37
8						,1	,0		,0	8	,27
9							,0		,0	9	,30
10							,1	,1	,0	5	,17
11								,0		5	,17
12								,0		3	,10
13								,1		6	,20
14								,1		4	,13
15									,0	1	,03
16								,0		5	,17
17									,0	2	,07
18								,0		3	,10
19									,0	2	,07
21									,1	2	,07
22									,0	2	,07
23										1	,03
24									,0	2	,07
27									,0	1	,03
28										1	,03
29										,0	,03
31										,1	,07
36										,1	,03
39										,0	,03
41										,0	,03
42										,0	,03
52										,0	,03
59										,0	,03
61										,0	,03

4.12.2 Average date of first and last frost

Table 4.12.10. Average date of first and last frost ($T_{min} < 0^{\circ}\text{C}$) and average length of frost free period.

Based on daily observations of minimum temperature in the period September 1960 - June 1990.

Station	DATE OF FIRST FROST		DATE OF LAST FROST		Average no. of days in frost free period
	Average	Absolute	Average	Absolute	
06030 FSN Ålborg	19-OCT	26-SEP	25-APR	12-MAY	176
06052 Thyborøn	01-DEC	07-NOV	24-MAR	26-APR	251
06060 FSN Karup	21-OCT	19-SEP	02-MAY	29-MAY	171
06110 FSN Skrydstrup	18-OCT	13-SEP	07-MAY	04-JUN	163
06120 Odense Lufthavn	23-OCT	29-SEP	27-APR	23-MAY	178
06139 Keldsnor Fyr	30-NOV	03-NOV	26-MAR	24-APR	248
06160 FSN Værløse	21-OCT	25-SEP	25-APR	13-MAY	178
06180 Københavns Lufthavn	07-NOV	12-OCT	18-APR	07-MAY	202
06190 Bornholms Lufthavn	01-NOV	30-SEP	28-APR	25-MAY	186

Remarks:

The table does not list the dates of the absolute last ‘first frost’, but it should be noted that in two instances the first frost did not occur until after New Year:

06052 Thyborøn: Winter 1974-75, first frost 15 February 1975.

06139 Keldsnor Fyr: Winter 1982-83, first frost 19 January 1983.

4.12.3 Average date of first summer day

Table 4.12.11. Average date of first summer day (Tmax > 25 °C), 1961-1990.

Only summers with summer days are included in the average.

Station	DATE OF FIRST SUMMER DAY		DATE OF LAST SUMMER DAY	
	Average	Absolute	Average	Absolute
06030 FSN Ålborg	11-JUN	03-MAY	11-AUG	15-SEP
06052 Thyborøn	26-JUN	27-MAY	26-JUL	31-AUG
06060 FSN Karup	06-JUN	03-MAY	20-AUG	23-SEP
06110 FSN Skrydstrup	19-JUN	01-MAY	05-AUG	15-SEP
06120 Odense Lufthavn	14-JUN	04-MAY	17-AUG	15-SEP
06139 Keldsnor Fyr	08-JUL	06-JUN	31-JUL	02-SEP
06160 FSN Værløse	15-JUN	17-MAY	19-AUG	13-SEP
06180 Københavns Lufthavn	24-JUN	29-MAY	08-AUG	18-SEP
06190 Bornholms Lufthavn	17-JUN	06-MAY	10-AUG	19-SEP

Remarks

06030 Ålborg Lufthavn had no summer days in 1962, 1965, 1967.

06052 Thyborøn had no summer days in 1962, 1963, 1964, 1965, 1967, 1974, 1979, 1986, 1987.

06060 FSN Karup had no summer days in 1962.

06110 FSN Skrydstrup had no summer days in 1965, 1974.

06120 Odense Lufthavn had no summer days in 1965.

06139 Keldsnor Lighthouse only had summer days in 19 out of 30 summers (years missing are: 1962, 1964, 1965, 1969, 1977, 1979, 1980, 1981, 1984, 1985, 1988).

06160 FSN Værløse had no summer days in 1962, 1965.

06180 Københavns Lufthavn had no summer days in 1965, 1987.

06190 Bornholms Lufthavn had no summer days in 1962, 1965, 1987.

5. Humidity

Humidity refers to any of a number of ways of specifying the amount of water vapour in the air.

The most commonly used measure of humidity is *relative humidity*. However, it is also unfortunately the most misunderstood. Relative humidity does not indicate the actual amount of water vapour in the air, but tells us how close the air is to being saturated. Relative humidity is stated as a percentage. Air with 50 % relative humidity actually contains one half of the amount required for saturation. Correspondingly, air with 100 % relative humidity is said to be saturated: it is filled to capacity with water vapour.

A more direct and readily understandable measure of humidity is *absolute humidity*. This is the mass of water vapour in a given volume of air, ie. grams per m³.

In the tables in sections 5.2 - 5.5 below you can see average monthly relative humidity (daily, at 06:00 and at 15:00 hours UTC) and average monthly absolute humidity (daily) for a number of stations in Denmark. As additional information, the graphs in section 5.1 below show the average daily range of relative humidity for a typical inland station (Karup in Jutland) and a coastal station (Copenhagen Airport). The curves are shown for a winter month (January), a summer month (July) and for the year as a whole.

The graphs and tables reflect the fact that the relative humidity is on average lowest during the day time when the temperature is highest, and highest during the night time when the temperature is lowest. This tendency is clearest during summer time and when referring to inland stations.

May can be seen to have had the lowest relative humidity (the “driest air”), January the “wettest air”. Conversely, the absolute humidity has been highest in August and lowest in January. The minimum relative humidity in May can be explained by the beginning of the growth season, while the local minimum in August can be explained by lack of water in late summer.

Finally, the air in the coastal regions can be seen to have been wettest, with the lowest variations throughout the period, compared with the inland stations.

Humidity and the home

According to the statistics, the relative humidity is highest in the winter time - we have the wettest air. This is in fact misleading because the content of water vapour is actually at its lowest during this period. Cold air cannot contain as much water vapour as warm air.

Imagine it is a cold, damp day outdoors, with saturated air (relative humidity = 100 %) at 0 °C. Saturated air at that temperature contains “only” approx. 4.8 g of water vapour per cubic metre of air. Now bring this air indoors and heat it to 20 °C. The amount of water vapour is still the same, but the hotter air can hold much more water vapour. The relative humidity thus drops to 26%, which for most people feels unpleasant. The colder the air outside the worse it gets. At -25 °C outdoors, the same air inside (20 °C) will have a relative humidity of a very uncomfortable 3 %! In this case it is necessary to add water vapour to the air inside.

5.1 Variation in daily relative humidity

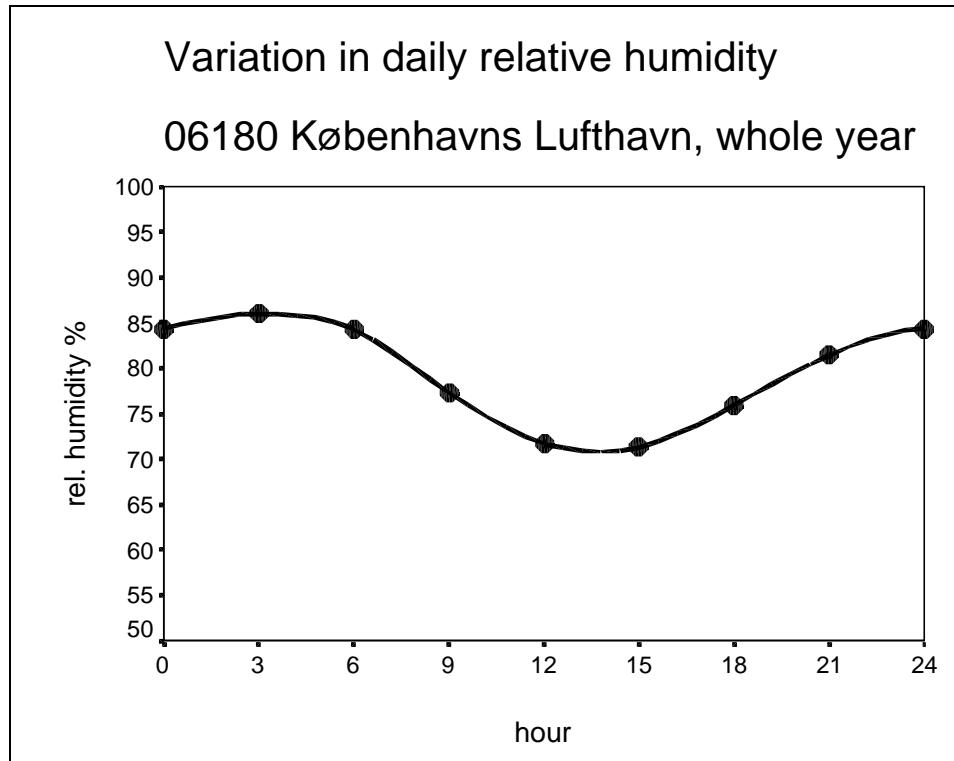


Figure 5.1.1. Based on observations every three hours during 1961-97.

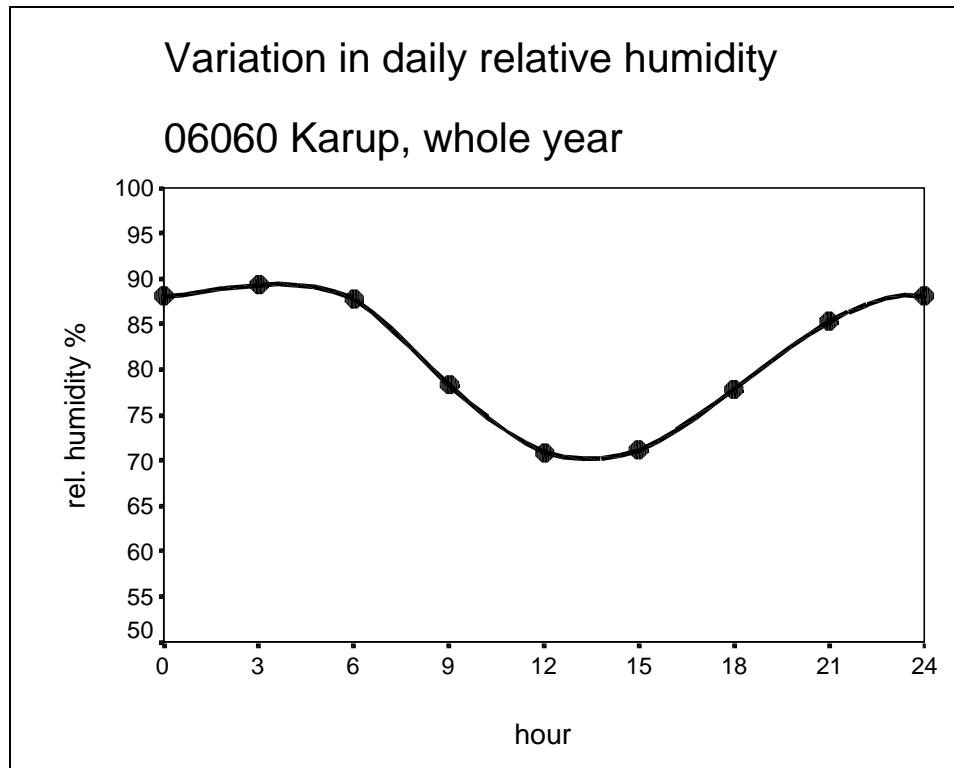


Figure 5.1.2. Based on observations every three hours during 1985-97.

Variation in daily relative humidity
06180 Københavns Lufthavn, January

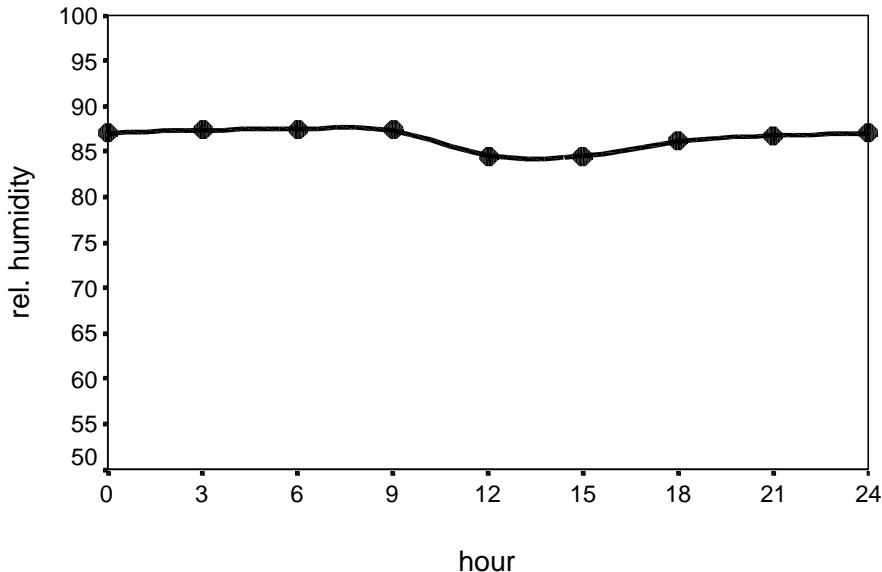


Figure 5.1.3. Based on observations every three hours during 1961-97.

Variation in daily relative humidity
06060 Karup, January

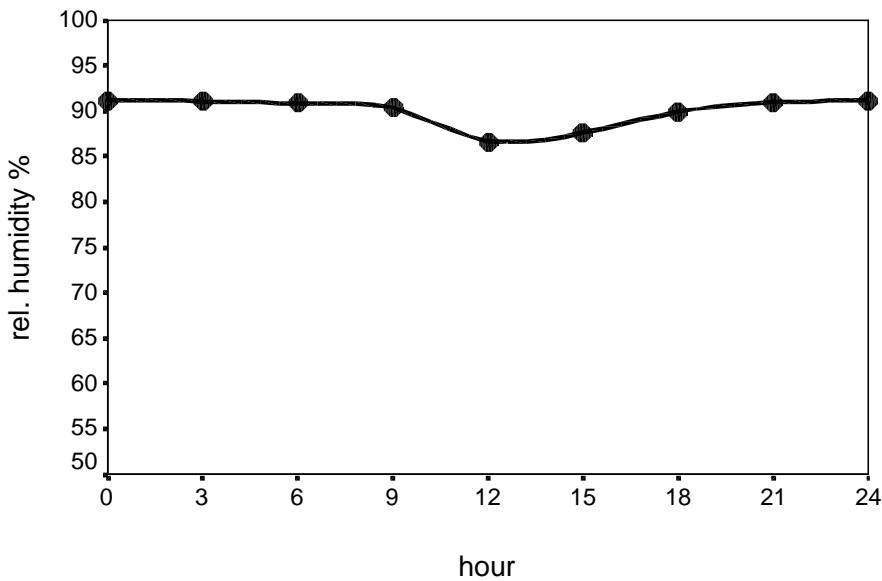


Figure 5.1.4. Based on observations every three hours during 1985-1997.

Variation in daily relative humidity

06180 Københavns Lufthavn, July

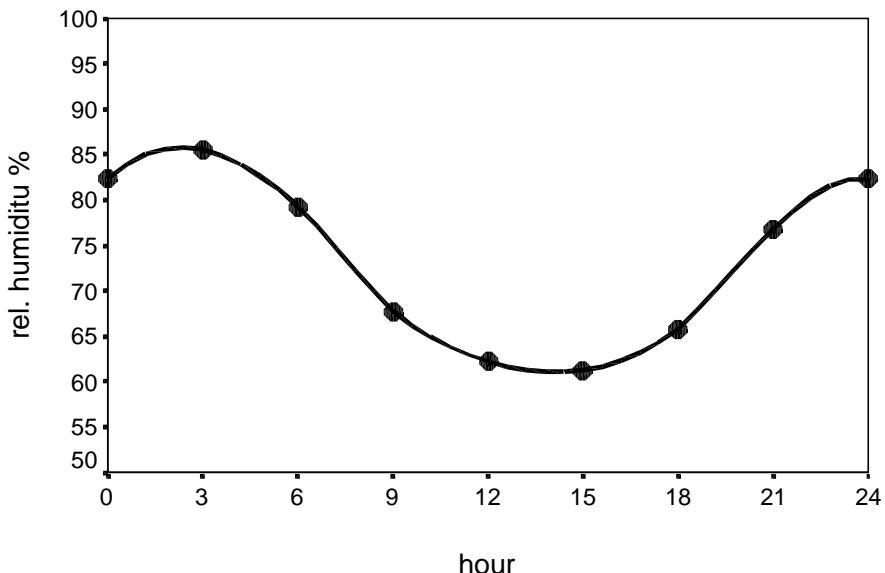


Figure 5.1.5. Based on observations every three hours during 1961-97.

Variation in daily relative humidity

06060 Karup, July

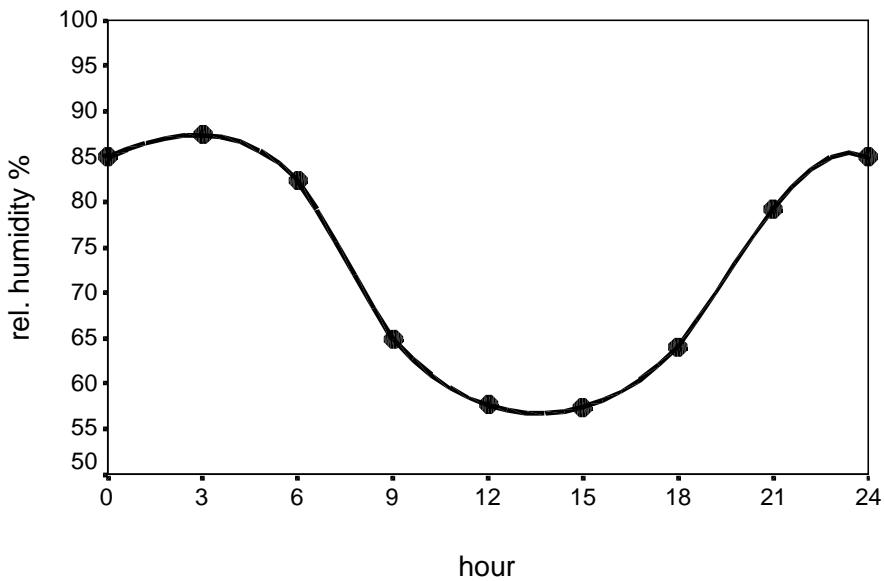
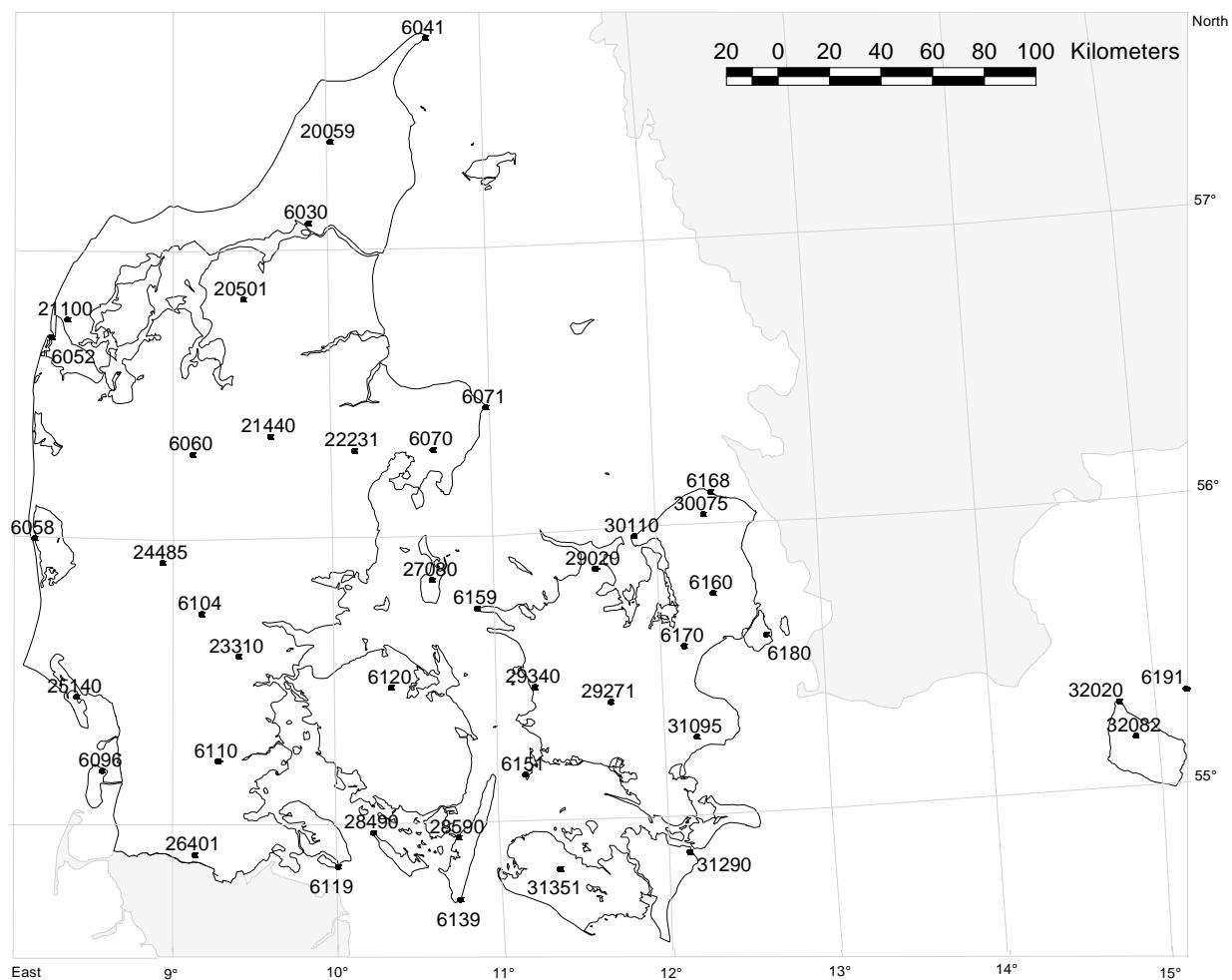


Figure 5.1.6. Based on observations every three hours during 1985-97.

5.2 Mean relative humidity



Map 5.1. Stations with mean relative humidity normals. See station catalogue 5.1.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	201	FSN ÅLBORG	57	6	N	9	51	E	3	1978	1997
06041	201	SKAGEN FYR	57	44	N	10	38	E	3	1978	1997
06052	201	THYBORØN	56	42	N	8	13	E	2	1981	1997
06058	201	HVIDE SANDE	56	0	N	8	8	E	3	1989	1997
06060	201	FSN KARUP	56	18	N	9	7	E	52	1985	1997
06070	201	FSN TIRSTRUP	56	18	N	10	37	E	23	1986	1997
06071	201	FORNÆS FYR	56	27	N	10	58	E	8	1986	1997
06096	201	RØMØ/JUVRE	55	11	N	8	34	E	4	1988	1997
06104	201	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1980	1997
06110	201	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1986	1997
06119	201	KEGNÆS FYR	54	51	N	9	59	E	16	1980	1997
06120	201	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1980	1997
06139	201	KELDSNOR FYR	54	44	N	10	43	E	9	1980	1990
06151	201	OMØ FYR	55	10	N	11	8	E	1	1990	1997
06159	201	RØSNÆS FYR	55	45	N	10	52	E	12	1980	1997
06160	201	FSN VÆRLØSE	55	46	N	12	20	E	17	1971	1997
06168	201	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	201	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	201	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06191	201	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1981	1997
20059	201	GULDAGER	57	23	N	10	0	E	32	1961	1990
20501	201	HORNUM II	56	50	N	9	26	E	30	1961	1990
21100	201	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	201	TANGE	56	21	N	9	36	E	13	1961	1990
22231	201	ØDUM II	56	18	N	10	8	E	61	1961	1990
23310	201	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	201	DØVLING	55	55	N	8	56	E	30	1975	1996
25140	201	NORDBY	55	27	N	8	24	E	4	1961	1990
26401	201	STORE JYNDEVAD II	54	54	N	9	7	E	15	1988	1997
27080	201	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	201	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	201	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	201	KOLLEKOLLE	55	52	N	11	36	E	30	1971	1996
29271	201	ALSTEDGÅRD II	55	24	N	11	40	E	45	1988	1997
29340	201	DRØSSELBJERG	55	28	N	11	13	E	18	1972	1993
30075	201	GRÆSTED	56	3	N	12	18	E	38	1961	1990
30110	201	SPODSBJERG FYR	55	59	N	11	51	E	34	1969	1992
31095	201	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	201	NÆSGÅRD	54	52	N	12	7	E	15	1961	1990
31351	201	ABED II	54	50	N	11	20	E	7	1988	1997
32020	201	HAMMER ODDE FYR	55	18	N	14	47	E	11	1961	1990
32082	201	KLEMENSKER Ø	55	10	N	14	52	E	103	1987	1997

Station catalogue 5.1. Element number 201: Mean relative humidity.

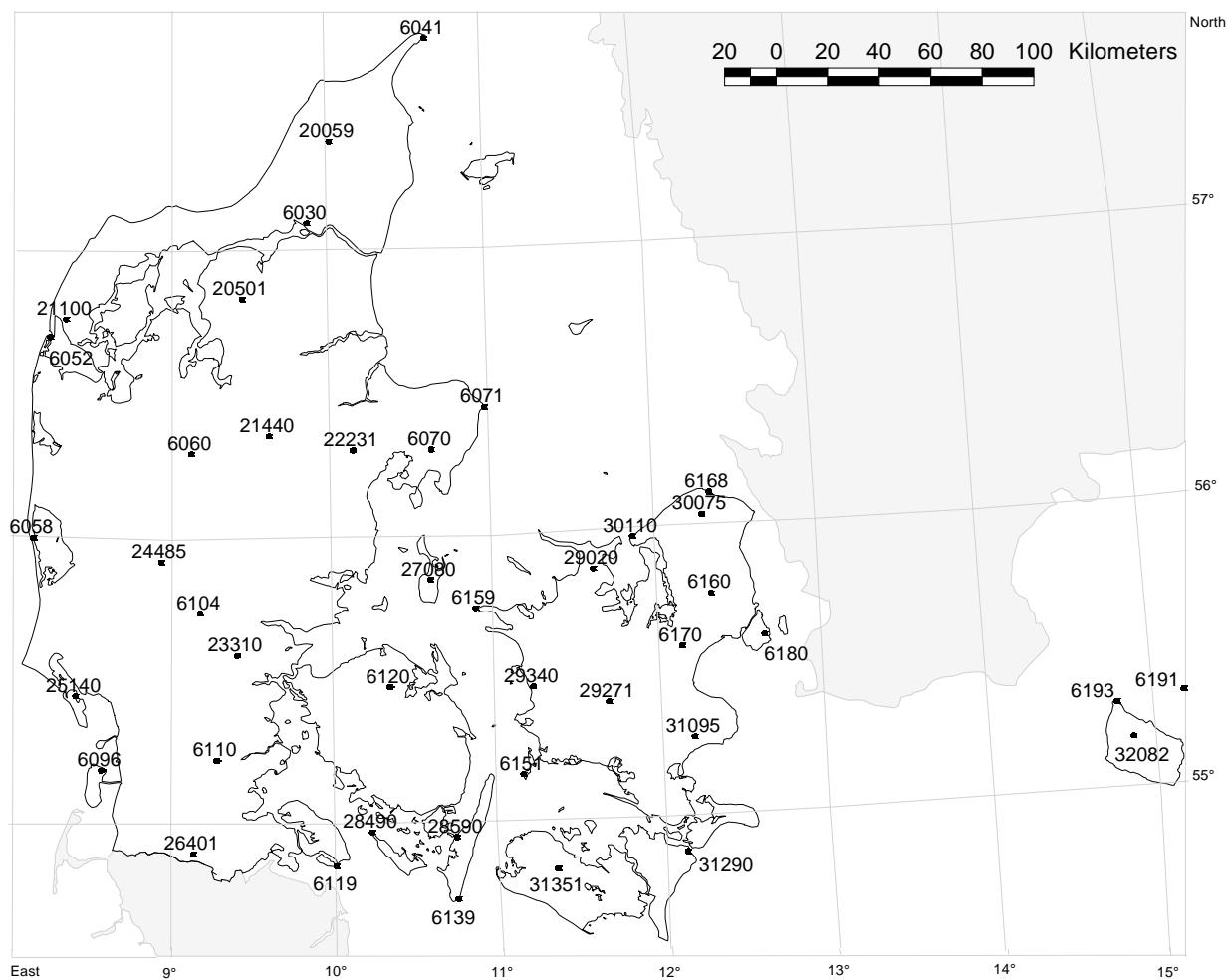
Table 5.2.1. Mean relative humidity (%). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06180 KØBENHAVNS LUFTHAVN	86	84	82	76	72	72	73	75	78	83	84	85	79
20059 GULDAGER	91	90	87	79	75	76	79	80	83	87	88	90	84
20501 HORNUM II	92	90	85	75	72	75	76	78	83	87	90	92	83
21100 VESTERVIG	87	86	85	78	75	79	80	80	82	85	85	87	82
21440 TANGE	92	90	86	77	72	73	76	78	84	87	90	91	83
22231 ØDUM II	91	90	86	77	73	75	76	76	82	86	89	91	83
23310 BRAKKER S	94	93	89	79	74	77	80	79	84	88	91	93	85
25140 NORDBY	91	89	87	81	76	77	79	79	82	87	89	90	84
27080 TRANEBJERG	90	91	86	76	73	75	75	76	80	84	86	89	82
28490 SKJOLDNÆS FYR	92	91	88	82	79	79	80	79	83	87	88	91	85
28590 RUDKØBING	89	88	85	78	75	79	78	79	81	85	87	89	83
30075 GRÆSTED	88	87	82	74	68	72	75	76	80	84	86	89	80
31290 NESGÅRD	93	93	91	85	80	78	80	81	84	87	90	92	86
32020 HAMMER ODDE FYR	90	91	88	84	82	80	81	81	82	85	86	89	85

Table 5.2.2.Mean relative humidity (%). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG 1978-97	89	87	84	76	73	75	74	76	80	84	87	89	81
06041 SKAGEN FYR 1978-97	93	91	91	87	86	87	87	87	87	88	90	92	89
06052 THYBORØN 1981-97	88	88	86	82	79	80	79	79	81	83	85	87	83
06058 HVIDE SANDE 1989-97	92	92	92	89	88	89	86	86	88	90	92	92	90
06060 FSN KARUP 1985-97	90	87	83	75	71	73	72	75	81	85	89	91	81
06070 FSN TIRSTRUP 1986-97	88	85	82	75	71	72	71	73	79	84	88	89	80
06071 FORNÆS FYR 1986-97	90	88	87	83	81	81	80	81	83	85	87	89	84
06096 RØMØ/JUVRE 1988-97	92	89	88	82	80	81	82	83	86	88	91	91	86
06104 BILLUND LUFTHAVN 1980-97	90	87	85	76	74	77	77	78	84	87	89	91	83
06110 FSN SKRYDSTRUP 1986-97	92	90	88	79	77	78	78	79	85	88	92	93	85
06119 KEGNAES FYR 1980-97	91	89	90	84	84	84	83	82	85	87	88	91	86
06120 ODENSE LUFTHAVN 1980-97	88	87	84	76	73	74	74	74	80	83	87	88	81
06139 KELDSNOR FYR 1980-90	92	90	91	85	85	85	84	83	85	87	88	91	87
06151 OMØ FYR 1990-97	92	91	90	87	85	85	82	82	84	87	89	90	87
06159 RØSNÆS FYR 1980-97	89	89	89	85	83	83	82	83	84	86	88	89	86
06160 FSN VÆRLØSE 1971-97	89	87	83	74	71	74	75	75	80	85	87	89	81
06168 NAKKEHOVED FYR 1987-97	92	90	87	81	79	83	83	84	86	89	91	91	86
06170 ROSKILDE LUFTHAVN 1974-97	87	85	83	74	69	71	70	72	78	81	85	87	79
06191 CHRISTIANSØ FYR 1981-97	91	91	92	91	92	91	88	87	87	88	89	90	90
24485 DØVLING 1975-96	92	91	89	79	73	78	79	81	85	89	92	93	85
26401 STORE JYNDEVAD II 1988-97	89	88	86	79	78	81	81	81	85	86	89	90	84
29020 KOLLEKOLLE 1971-96	91	91	87	78	74	78	77	77	82	86	89	92	83
29271 ALSTEDGÅRD II 1988-97	89	86	84	77	73	76	75	75	82	87	90	90	82
29340 DRØSSELBJERG 1972-93	92	92	87	77	72	75	76	76	80	85	88	91	82
30110 SPODSBJERG FYR 1969-92	92	92	88	81	76	78	78	78	81	85	88	91	84
31095 VIVEDE OVERDREV 1973-91	87	87	85	77	72	76	76	77	82	85	86	88	82
31351 ABED II 1988-97	90	87	85	77	77	79	78	77	84	87	90	90	83
32082 KLEMENSKER Ø 1987-97	88	87	85	79	77	79	79	80	85	86	88	87	83

5.3 Mean absolute humidity



Map 5.2. Stations with absolute humidity normals. See station catalogue 5.2.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	240	FSN ÅLBORG	57	6	N	9	51	E	3	1978	1997
06041	240	SKAGEN FYR	57	44	N	10	38	E	3	1978	1997
06052	240	THYBORØN	56	42	N	8	13	E	2	1981	1997
06058	240	HVIDE SANDE	56	0	N	8	8	E	3	1989	1997
06060	240	FSN KARUP	56	18	N	9	7	E	52	1985	1997
06070	240	FSN TIRSTRUP	56	18	N	10	37	E	23	1986	1997
06071	240	FORNÆS FYR	56	27	N	10	58	E	8	1986	1997
06096	240	RØMØ/JUVRE	55	11	N	8	34	E	4	1988	1997
06104	240	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1980	1997
06110	240	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1986	1997
06119	240	KEGNÆS FYR	54	51	N	9	59	E	16	1980	1997
06120	240	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1980	1997
06139	240	KELDSNOR FYR	54	44	N	10	43	E	9	1980	1990
06151	240	OMØ FYR	55	10	N	11	8	E	1	1990	1997
06159	240	RØSNÆS FYR	55	45	N	10	52	E	12	1980	1997
06160	240	FSN VÆRLØSE	55	46	N	12	20	E	17	1971	1997
06168	240	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	240	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	240	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06191	240	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1981	1997
06193	240	HAMMER ODDE FYR	55	18	N	14	47	E	11	1971	1997
20059	240	GULDAGER	57	23	N	10	0	E	32	1971	1996
20501	240	HORNUM II	56	50	N	9	26	E	30	1971	1997
21100	240	VESTERVIG	56	46	N	8	19	E	18	1971	1996
21440	240	TANGE	56	21	N	9	36	E	13	1971	1994
22231	240	ØDUM II	56	18	N	10	8	E	61	1971	1997
23310	240	BRAKKER S	55	35	N	9	24	E	58	1971	1996
24485	240	DØVLING	55	55	N	8	56	E	30	1975	1996
25140	240	NORDBY	55	27	N	8	24	E	4	1971	1996
26401	240	STORE JYNDEVAD II	54	54	N	9	7	E	15	1988	1997
27080	240	TRANEBJERG	55	51	N	10	36	E	11	1971	1996
28490	240	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1971	1994
28590	240	RUDKØBING	54	57	N	10	43	E	10	1971	1996
29020	240	KOLLEKOLLE	55	52	N	11	36	E	30	1971	1996
29271	240	ALSTEDGÅRD II	55	24	N	11	40	E	45	1988	1997
29340	240	DRØSSELBJERG	55	28	N	11	13	E	18	1972	1993
30075	240	GRÆSTED	56	3	N	12	18	E	38	1971	1996
30110	240	SPODSBJERG FYR	55	59	N	11	51	E	34	1971	1992
31095	240	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	240	NÆSGÅRD	54	52	N	12	7	E	15	1971	1993
31351	240	ABED II	54	50	N	11	20	E	7	1988	1997
32082	240	KLEMENSKER Ø	55	10	N	14	52	E	103	1987	1997

Station catalogue 5.2. Element number 240: Absolute humidity.

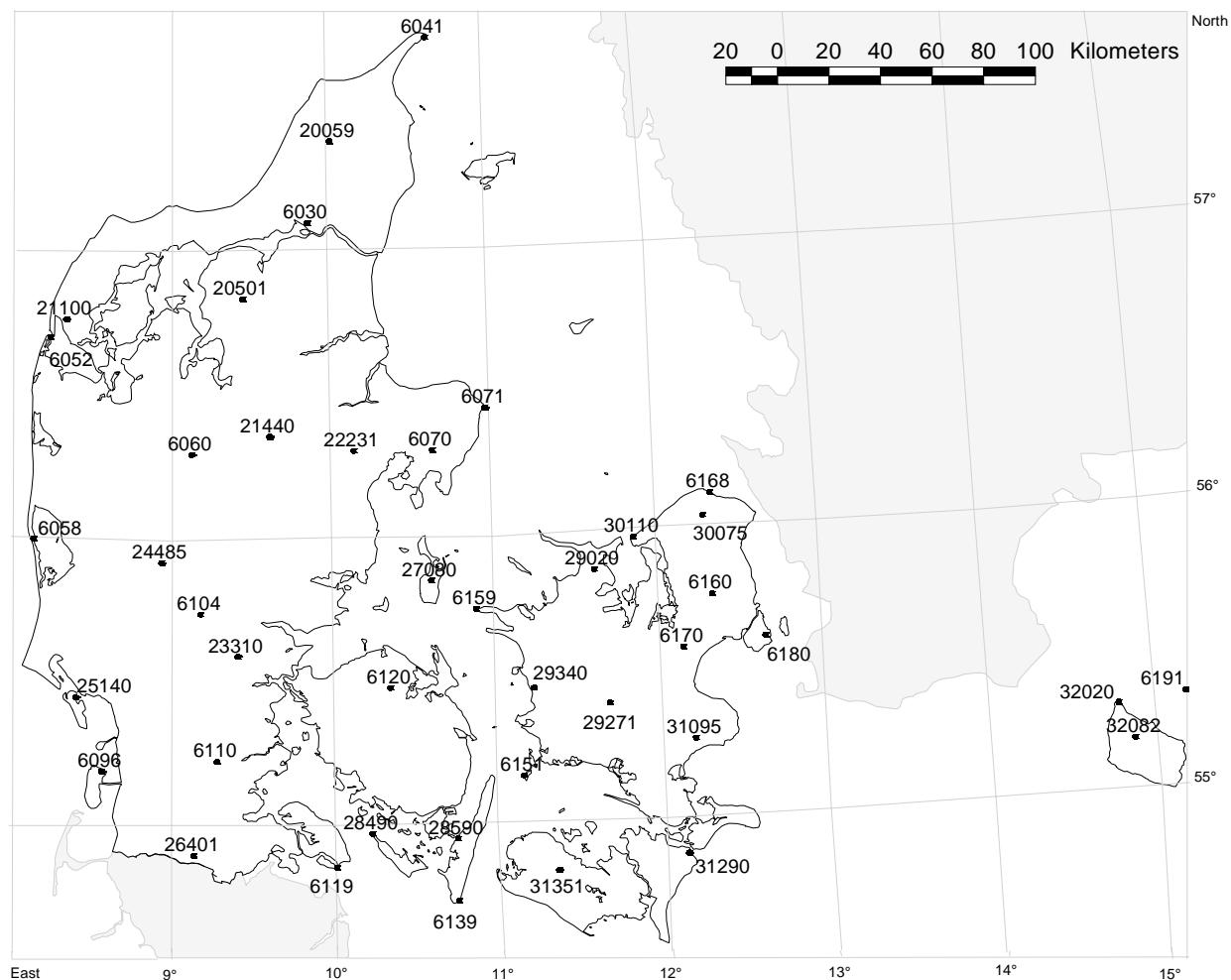
Table 5.3.1. Mean absolute humidity (g/m³). Climatological standard normal, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06180 KØBENHAVNS LUFTHAVN	4,3	4,2	4,6	5,4	7,1	9,2	10,2	10,2	9,1	7,7	5,9	4,8	6,9

Table 5.3.2. Mean absolute humidity (g/m³). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG 1978-97	4,3	4,2	4,8	5,4	7,1	9,0	10,0	10,2	8,6	7,3	5,8	4,8	6,8
06041 SKAGEN FYR 1978-97	5,0	4,7	5,3	6,2	8,4	10,6	12,0	12,1	9,8	8,2	6,5	5,5	7,8
06052 THYBORØN 1981-97	5,1	4,9	5,3	6,0	7,8	9,4	10,9	11,1	9,5	8,1	6,4	5,5	7,5
06058 HVIDE SANDE 1989-97	5,4	5,3	5,8	6,6	8,5	10,5	12,0	12,4	10,3	8,4	6,4	5,5	8,1
06060 FSN KARUP 1985-97	4,7	4,7	5,1	5,6	7,1	8,7	9,9	10,2	8,7	7,6	5,9	5,3	7,0
06070 FSN TIRSTRUP 1986-97	4,7	4,6	4,9	5,4	6,9	8,6	9,7	9,9	8,4	7,3	5,9	5,1	6,8
06071 FORNÆS FYR 1986-97	5,0	4,8	5,2	6,0	8,0	9,9	11,3	11,4	9,3	7,9	6,2	5,3	7,5
06096 RØMØ/JUVRE 1988-97	5,3	5,1	5,6	6,3	8,0	9,8	11,5	11,8	9,9	8,0	6,2	5,4	7,7
06104 BILLUND LUFTHAVN 1980-97	4,6	4,4	4,9	5,6	7,3	9,0	10,2	10,3	8,9	7,5	5,8	5,0	7,0
06110 FSN SKRYDSTRUP 1986-97	5,0	4,9	5,4	6,0	7,6	9,3	10,6	10,7	9,3	7,9	6,2	5,4	7,3
06119 KEGNÆS FYR 1980-97	4,9	4,7	5,3	6,2	8,4	10,3	11,8	11,8	10,0	8,3	6,5	5,5	7,8
06120 ODENSE LUFTHAVN 1980-97	4,7	4,6	5,1	5,8	7,4	9,2	10,4	10,4	9,0	7,6	6,0	5,1	7,1
06139 KELDSNOR FYR 1980-90	4,9	4,7	5,3	6,2	8,6	10,6	12,0	11,9	10,3	8,6	6,5	5,5	7,9
06151 OMØ FYR 1990-97	5,2	5,1	5,7	6,7	8,6	10,7	12,4	12,8	10,4	8,4	6,5	5,5	8,2
06159 RØSNÆS FYR 1980-97	4,9	4,7	5,2	6,2	8,3	10,3	11,8	12,0	10,0	8,3	6,4	5,5	7,8
06160 FSN VÆRLØSE 1971-97	4,5	4,3	4,7	5,3	7,0	9,0	10,3	10,2	8,7	7,4	5,9	5,0	6,9
06168 NAKKEHOVED FYR 1987-97	4,9	4,9	5,2	6,1	7,9	10,4	11,8	12,0	9,7	7,8	6,1	5,2	7,7
06170 ROSKILDE LUFTHAVN 1974-97	4,4	4,2	4,8	5,4	7,0	8,9	9,9	10,0	8,6	7,2	5,7	4,8	6,7
06191 CHRISTIANSØ FYR 1981-97	5,1	4,9	5,3	6,1	8,1	10,6	12,7	13,0	10,5	8,6	6,6	5,6	8,1
06193 HAMMER ODDE FYR 1971-97	4,8	4,6	5,0	5,6	7,4	9,8	11,7	12,0	9,7	8,0	6,2	5,3	7,5
20059 GULDAGER 1971-96	4,6	4,5	5,0	5,7	7,5	9,6	11,0	10,7	9,0	7,5	5,9	5,1	7,2
20501 HORNUM II 1971-97	4,6	4,5	4,9	5,5	7,3	9,2	10,4	10,4	8,9	7,5	5,9	5,1	7,0
21100 VESTERVIG 1971-96	4,8	4,6	5,1	5,8	7,7	9,6	11,0	11,1	9,3	7,8	6,2	5,3	7,4
21440 TANGE 1971-94	4,8	4,6	5,1	5,6	7,5	9,3	10,7	10,5	9,0	7,5	6,1	5,3	7,2
22231 ØDUM II 1971-97	4,5	4,5	4,9	5,5	7,3	9,2	10,3	10,2	8,8	7,5	5,9	5,0	7,0
23310 BRAKKER S 1971-96	4,8	4,6	5,2	5,8	7,5	9,4	10,7	10,6	9,2	7,8	6,2	5,3	7,2
24485 DØVLING 1975-96	4,8	4,6	5,2	5,9	7,6	9,5	10,8	10,9	9,2	7,9	6,2	5,3	7,3
25140 NORDBY 1971-96	5,0	4,8	5,4	6,1	8,0	9,8	11,2	11,4	9,8	8,2	6,5	5,6	7,6
26401 STORE JYNDEVAD II 1988-97	5,1	5,0	5,5	6,1	7,9	9,8	11,2	11,3	9,5	7,7	5,9	5,2	7,5
27080 TRANEBJERG 1971-96	5,0	4,8	5,3	5,8	7,7	9,8	10,9	11,0	9,5	7,9	6,2	5,3	7,4
28490 SKJOLDNÆS FYR 1971-94	5,0	4,8	5,4	6,2	8,4	10,4	11,7	11,6	10,1	8,3	6,6	5,6	7,8
28590 RUDKØBING 1971-96	4,8	4,6	5,2	6,0	8,0	10,1	11,4	11,4	9,7	8,1	6,3	5,4	7,6
29020 KOLLEKOLLE 1971-96	4,7	4,6	5,1	5,9	7,8	10,0	11,2	11,1	9,4	7,8	6,1	5,3	7,4
29271 ALSTEDGÅRD II 1988-97	4,9	4,8	5,1	5,8	7,4	9,3	10,6	10,7	9,1	7,6	5,9	5,1	7,2
29340 DRØSSELBJERG 1972-93	4,9	4,8	5,3	5,8	7,8	9,8	11,2	11,0	9,4	7,8	6,2	5,4	7,4
30075 GRÆSTED 1971-96	4,6	4,4	4,9	5,6	7,3	9,6	10,9	10,9	9,1	7,6	5,9	5,1	7,2
30110 SPODSBJERG FYR 1971-92	4,8	4,6	5,1	5,9	8,0	10,1	11,3	11,3	9,5	7,8	6,2	5,3	7,5
31095 VIVEDE OVERDREV 1973-91	4,5	4,4	4,9	5,6	7,4	9,7	10,9	10,8	9,4	7,8	6,0	5,1	7,2
31290 NÆSGÅRD 1971-93	5,1	5,0	5,7	6,2	8,1	10,2	11,6	11,6	9,9	8,1	6,3	5,5	7,8
31351 ABED II 1988-97	5,0	4,9	5,3	5,9	7,7	9,8	11,1	11,1	9,5	7,9	6,0	5,2	7,4
32082 KLEMENSKER Ø 1987-97	4,6	4,5	4,7	5,5	7,0	9,2	10,8	11,1	9,4	7,6	5,8	4,9	7,1

5.4 Mean relative humidity at 06:00 or 07:00 UTC



Map 5.3. Stations with relative humidity at 6 or 7 UTC normals. See station catalogue 5.3.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	256	FSN ÅLBORG	57	6	N	9	51	E	3	1978	1997
06041	256	SKAGEN FYR	57	44	N	10	38	E	3	1978	1997
06052	256	THYBORØN	56	42	N	8	13	E	2	1981	1997
06058	256	HVIDE SANDE	56	0	N	8	8	E	3	1989	1997
06060	256	FSN KARUP	56	18	N	9	7	E	52	1985	1997
06070	256	FSN TIRSTRUP	56	18	N	10	37	E	23	1986	1997
06071	256	FORNÆS FYR	56	27	N	10	58	E	8	1986	1997
06096	256	RØMØ/JUVRE	55	11	N	8	34	E	4	1988	1997
06104	256	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1980	1997
06110	256	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1986	1997
06119	256	KEGNÆS FYR	54	51	N	9	59	E	16	1980	1997
06120	256	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1980	1997
06139	256	KELDSNOR FYR	54	44	N	10	43	E	9	1980	1990
06151	256	OMØ FYR	55	10	N	11	8	E	1	1990	1997
06159	256	RØSNÆS FYR	55	45	N	10	52	E	12	1980	1997
06160	256	FSN VÆRLØSE	55	46	N	12	20	E	17	1971	1997
06168	256	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	256	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	256	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06191	256	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1981	1997
20059	257	GULDAGER	57	23	N	10	0	E	32	1961	1990
20501	257	HORNUM II	56	50	N	9	26	E	30	1961	1990
21100	257	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	257	TANGE	56	21	N	9	36	E	13	1961	1990
22231	257	ØDUM II	56	18	N	10	8	E	61	1961	1990
23310	257	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	257	DØVLING	55	55	N	8	56	E	30	1975	1996
25140	257	NORDBY	55	27	N	8	24	E	4	1961	1990
26401	256	STORE JYNDEVAD II	54	54	N	9	7	E	15	1988	1997
27080	257	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	257	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	257	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	257	KOLLEKOLLE	55	52	N	11	36	E	30	1971	1996
29271	256	ALSTEDGÅRD II	55	24	N	11	40	E	45	1988	1997
29340	257	DRØSSELBJERG	55	28	N	11	13	E	18	1972	1993
30075	257	GRÆSTED	56	3	N	12	18	E	38	1961	1990
30110	257	SPODSBJERG FYR	55	59	N	11	51	E	34	1969	1992
31095	257	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	257	NÆSGÅRD	54	52	N	12	7	E	15	1961	1990
31351	256	ABED II	54	50	N	11	20	E	7	1988	1997
32020	257	HAMMER ODDE FYR	55	18	N	14	47	E	11	1961	1990
32082	256	KLEMENSKER Ø	55	10	N	14	52	E	103	1987	1997

Station catalogue 5.3. Element number 256: Mean relative humidity at 06:00 UTC and element number 257: Mean relative humidity at 07:00 UTC.

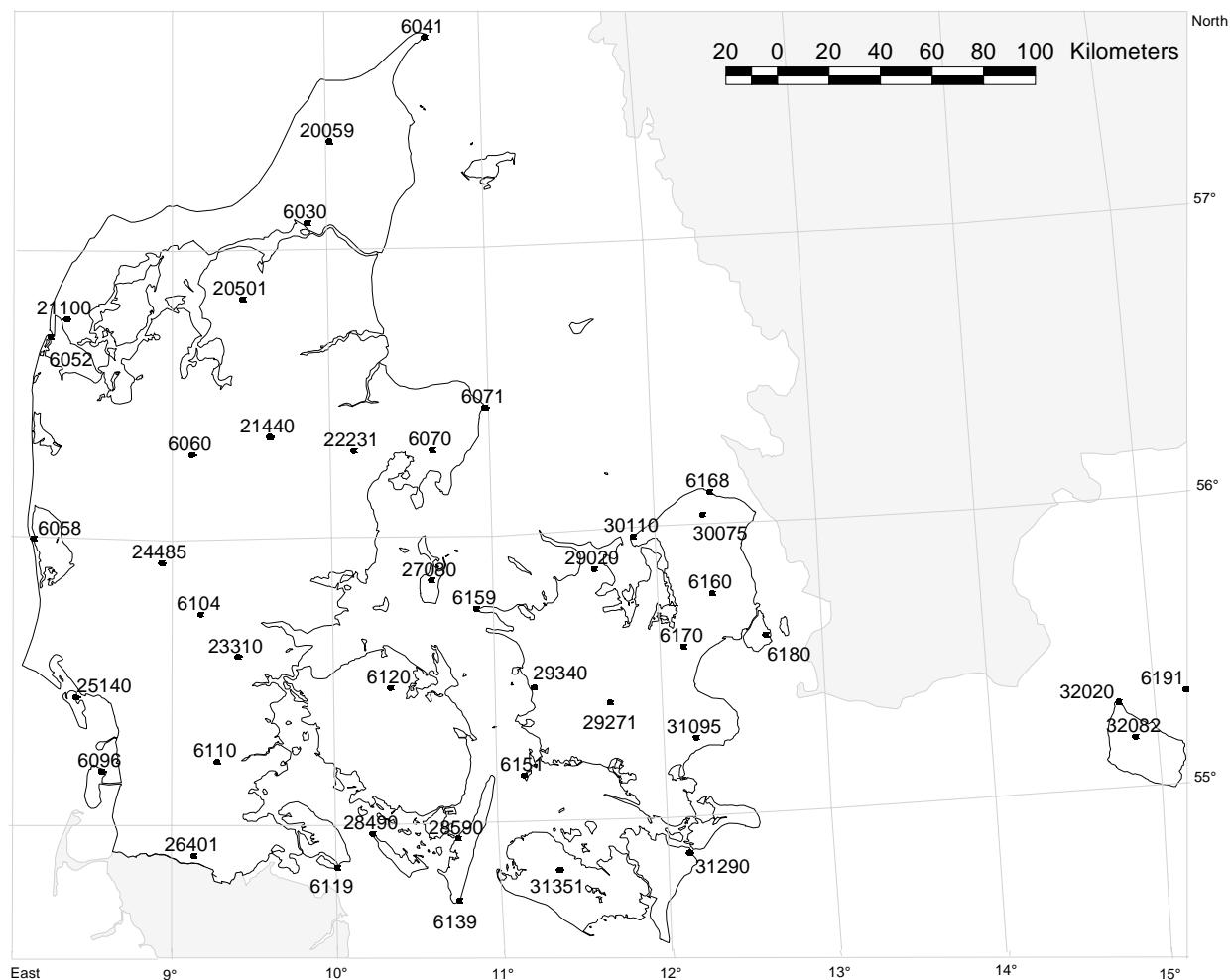
Table 5.4.1. Mean relative humidity at 06:00 or 07:00 UTC (%). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06180 KØBENHAVNS LUFTHAVN	87	87	87	84	79	78	80	84	87	88	87	86	85
20059 GULDAGER	91	93	91	83	78	79	82	86	89	91	90	91	87
20501 HORNUM II	93	92	89	78	74	76	78	82	88	90	92	92	85
21100 VESTERVIG	88	88	88	81	78	81	82	84	86	87	87	88	85
21440 TANGE	93	93	92	86	80	81	84	88	92	93	93	93	89
22231 ØDUM II	92	92	90	83	78	79	81	83	88	91	91	91	87
23310 BRAKKER S	95	95	93	85	78	81	84	86	91	93	94	95	89
25140 NORDBY	91	91	89	85	79	80	81	83	87	91	90	91	86
27080 TRANEBJERG	91	92	89	81	78	79	80	82	85	87	88	90	85
28490 SKJOLDNÆS FYR	92	92	90	86	83	82	83	84	87	90	90	92	88
28590 RUDKØBING	90	90	88	83	79	82	83	84	86	89	89	90	86
30075 GRÆSTED	89	89	87	78	72	76	78	81	85	88	89	89	83
31290 NÆSGÅRD	93	93	93	88	84	82	84	86	90	91	92	93	89
32020 HAMMER ODDE FYR	91	92	90	85	83	82	82	83	85	87	87	89	86

Table 5.4.2. Mean relative humidity at 06:00 or 07:00 UTC (%). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG, 1978-97	90	90	90	86	81	82	82	87	89	89	89	90	87
06041 SKAGEN FYR, 1978-97	94	93	94	92	91	92	92	93	91	91	90	92	92
06052 THYBORØN, 1981-97	88	90	89	85	83	83	83	84	84	84	85	87	85
06058 HVIDE SANDE, 1989-97	92	94	94	92	91	91	90	91	91	91	92	92	92
06060 FSN KARUP, 1985-97	91	90	90	86	81	82	82	87	90	91	91	92	88
06070 FSN TIRSTRUP, 1986-97	89	89	89	85	78	79	80	84	88	89	90	90	86
06071 FORNÆS FYR, 1986-97	91	90	91	89	86	88	88	90	89	89	88	90	89
06096 RØMØ/JUVRE, 1988-97	92	91	92	89	85	85	86	88	90	91	93	92	89
06104 BILLUND LUFTHAVN, 1980-97	91	90	91	89	86	88	89	92	93	92	91	92	90
06110 FSN SKRYDSTRUP, 1986-97	93	93	94	90	86	87	87	92	94	94	94	94	91
06119 KEGNÆS FYR, 1980-97	91	91	93	90	90	89	90	89	90	89	90	92	90
06120 ODENSE LUFTHAVN, 1980-97	90	90	90	87	81	82	84	87	90	89	89	90	87
06139 KELDSNOR FYR, 1980-90	92	92	92	89	89	88	88	88	89	89	89	91	90
06151 OMØ FYR, 1990-97	93	91	93	91	89	89	88	88	90	91	92	91	90
06159 RØSNÆS FYR, 1980-97	90	90	91	88	86	87	87	88	88	88	88	90	88
06160 FSN VÆRLØSE, 1971-97	90	90	91	86	80	82	85	88	91	91	90	90	88
06168 NAKKEHOVED FYR, 1987-97	93	93	92	89	85	89	89	92	92	92	92	92	91
06170 ROSKILDE LUFTHAVN, 1974-97	89	89	89	85	77	79	80	84	88	87	88	88	85
06191 CHRISTIANSØ FYR, 1981-97	92	92	93	93	94	93	91	90	90	89	89	91	91
24485 DØVLING, 1975-96	94	94	93	86	78	82	84	88	92	94	94	94	89
26401 STORE JYNDEVAD II, 1988-97	91	90	91	89	86	88	90	92	93	92	91	91	90
29020 KOLLEKOLLE, 1971-96	92	93	90	84	78	82	82	84	87	90	90	92	87
29271 ALSTEDGÅRD II, 1988-97	90	89	89	88	84	86	87	90	92	92	92	91	89
29340 DRØSSELBJERG, 1972-93	92	93	91	83	76	80	82	83	86	88	90	92	86
30110 SPODSBJERG FYR, 1969-92	93	93	91	84	79	81	82	83	86	89	89	92	87
31095 VIVEDE OVERDREV, 1973-91	88	88	88	80	74	78	79	82	86	89	88	89	84
31351 ABED II, 1988-97	91	90	90	88	85	86	88	90	93	92	91	91	90
32082 KLEMENSKER Ø, 1987-97	89	88	89	85	82	83	84	88	91	91	89	87	87

5.5 Mean relative humidity at 13:00 or 15:00 UTC



Map 5.4. Stations with relative humidity at 13 or 15 UTC normals. See station catalogue 5.4.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	265	FSN ÅLBORG	57	6	N	9	51	E	3	1978	1997
06041	265	SKAGEN FYR	57	44	N	10	38	E	3	1978	1997
06052	265	THYBORØN	56	42	N	8	13	E	2	1981	1997
06058	265	HVIDE SANDE	56	0	N	8	8	E	3	1989	1997
06060	265	FSN KARUP	56	18	N	9	7	E	52	1985	1997
06070	265	FSN TIRSTRUP	56	18	N	10	37	E	23	1986	1997
06071	265	FORNÆS FYR	56	27	N	10	58	E	8	1986	1997
06096	265	RØMØ/JUVRE	55	11	N	8	34	E	4	1988	1997
06104	265	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1980	1997
06110	265	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1986	1997
06119	265	KEGNÆS FYR	54	51	N	9	59	E	16	1980	1997
06120	265	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1980	1997
06139	265	KELDSNOR FYR	54	44	N	10	43	E	9	1980	1990
06151	265	OMØ FYR	55	10	N	11	8	E	1	1990	1997
06159	265	RØSNÆS FYR	55	45	N	10	52	E	12	1980	1997
06160	265	FSN VÆRLØSE	55	46	N	12	20	E	17	1971	1997
06168	265	NAKKEHOVED FYR	56	7	N	12	21	E	37	1987	1997
06170	265	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	265	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06191	265	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1981	1997
20059	263	GULDAGER	57	23	N	10	0	E	32	1961	1990
20501	263	HORNUM II	56	50	N	9	26	E	30	1961	1990
21100	263	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	263	TANGE	56	21	N	9	36	E	13	1961	1990
22231	263	ØDUM II	56	18	N	10	8	E	61	1961	1990
23310	263	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	263	DØVLING	55	55	N	8	56	E	30	1975	1996
25140	263	NORDBY	55	27	N	8	24	E	4	1961	1990
26401	265	STORE JYNDEVAD II	54	54	N	9	7	E	15	1988	1997
27080	263	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	263	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	263	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	263	KOLLEKOLLE	55	52	N	11	36	E	30	1971	1996
29271	265	ALSTEDGÅRD II	55	24	N	11	40	E	45	1988	1997
29340	263	DRØSSELBJERG	55	28	N	11	13	E	18	1972	1993
30075	263	GRÆSTED	56	3	N	12	18	E	38	1961	1990
30110	263	SPODSBJERG FYR	55	59	N	11	51	E	34	1969	1992
31095	263	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	263	NÆSGÅRD	54	52	N	12	7	E	15	1961	1990
31351	265	ABED II	54	50	N	11	20	E	7	1988	1997
32020	263	HAMMER ODDE FYR	55	18	N	14	47	E	11	1961	1990
32082	265	KLEMENSKER Ø	55	10	N	14	52	E	103	1987	1997

Station catalogue 5.4. Element number 263: Mean relative humidity at 13:00 UTC and element number 265: Mean relative humidity at 15:00 UTC.

Table 5.5.1. Mean relative humidity at 13:00 or 15:00 UTC (%). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06180 KØBENHAVNS LUFTHAVN	85	80	74	65	61	61	62	62	68	77	82	84	72
20059 GULDAGER	90	88	81	69	63	66	68	67	73	80	85	89	77
20501 HORNUM II	90	86	78	62	60	64	64	65	72	79	86	90	75
21100 VESTERVIG	86	82	78	69	66	71	72	71	74	79	82	86	76
21440 TANGE	90	84	76	63	59	61	63	62	69	78	85	90	73
22231 ØDUM II	90	87	79	64	61	64	63	60	69	79	84	89	74
23310 BRAKKER S	92	88	81	67	63	65	67	65	72	81	87	91	77
25140 NORDBY	89	85	81	73	67	69	71	70	74	81	86	89	78
27080 TRANEBJERG	89	89	82	67	64	67	66	65	73	79	83	88	76
28490 SKJOLDNÆS FYR	90	88	84	75	72	71	72	70	76	82	85	90	80
28590 RUDKØBING	88	86	80	71	67	72	71	70	75	81	85	88	78
30075 GRÆSTED	86	82	76	64	58	65	65	64	71	77	82	87	73
31290 NÆSGÅRD	93	92	89	78	72	70	72	71	75	81	88	92	81
32020 HAMMER ODDE FYR	89	90	85	80	77	74	75	76	78	83	84	88	82

Table 5.5.2. Mean relative humidity at 13:00 or 15:00 UTC (%). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG, 1978-97	87	82	76	62	59	63	60	63	69	77	84	88	72
06041 SKAGEN FYR, 1978-97	92	89	87	80	78	79	78	79	81	86	88	91	84
06052 THYBORØN, 1981-97	87	86	83	77	73	74	73	73	76	80	84	86	79
06058 HVIDE SANDE, 1989-97	92	90	88	84	84	84	80	81	84	87	90	91	86
06060 FSN KARUP, 1985-97	88	80	73	62	57	59	57	59	68	76	85	90	71
06070 FSN TIRSTRUP, 1986-97	86	79	72	61	56	58	55	58	68	76	84	87	70
06071 FORNÆS FYR, 1986-97	89	84	82	77	73	73	71	72	75	81	85	88	79
06096 RØMØ/JUVRE, 1988-97	91	85	81	72	70	72	72	73	78	84	88	92	80
06104 BILLUND LUFTHAVN, 1980-97	88	82	76	61	60	63	62	62	71	78	86	90	73
06110 FSN SKRYDSTRUP, 1986-97	90	84	79	65	63	65	63	63	71	79	88	91	75
06119 KEGNÆS FYR, 1980-97	89	87	86	77	78	78	76	75	79	83	87	90	82
06120 ODENSE LUFTHAVN, 1980-97	86	81	75	62	59	61	59	58	67	76	83	86	71
06139 KELDSNOR FYR, 1980-90	91	89	87	79	79	79	78	76	80	85	87	91	83
06151 OMØ FYR, 1990-97	91	89	87	82	79	79	76	74	81	85	89	90	83
06159 RØSNÆS FYR, 1980-97	89	88	87	82	79	78	78	78	80	83	86	89	83
06160 FSN VÆRLØSE, 1971-97	87	81	72	59	57	60	60	58	66	76	84	88	71
06168 NAKKEHOVED FYR, 1987-97	91	87	80	72	71	76	74	75	79	83	89	91	81
06170 ROSKILDE LUFTHAVN, 1974-97	85	80	75	61	58	60	58	58	67	76	83	85	70
06191 CHRISTIANSØ FYR, 1981-97	91	90	90	87	88	86	84	82	84	86	88	90	87
24485 DØVLING, 1975-96	90	86	80	66	60	65	65	66	72	80	87	91	76
26401 STORE JYNDEVAD II, 1988-97	87	82	76	64	64	67	66	65	73	78	85	89	75
29020 KOLLEKOLLE, 1971-96	90	88	80	68	64	68	67	66	73	81	86	90	77
29271 ALSTEDGÅRD II, 1988-97	88	81	75	62	58	62	59	57	70	79	87	89	72
29340 DRØSSELBJERG, 1972-93	90	90	82	67	62	66	66	65	72	79	85	90	76
30110 SPODSBJERG FYR, 1969-92	92	89	83	75	71	73	73	72	75	80	85	90	80
31095 VIVEDE OVERDREV, 1973-91	86	84	80	67	62	66	65	64	72	79	84	86	75
31351 ABED II, 1988-97	87	82	76	62	61	66	61	58	72	80	87	88	73
32082 KLEMENSKER Ø, 1987-97	88	85	80	70	65	68	67	66	76	82	87	86	76



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6. Atmospheric pressure

The three tables, 6.1-6.3, in the sections below show mean atmospheric pressure, absolute maximum atmospheric pressure (together with the date when the maximum pressure occurs), and absolute minimum atmospheric pressure (together with the date when the minimum pressure occurs).

The table with the mean pressure shows that there is a pressure gradient across the country of approximately 2 hPa, with the highest mean pressure values in the south east and the lowest mean pressure values in the north west. The highest mean pressure is thus found on Bornholm.

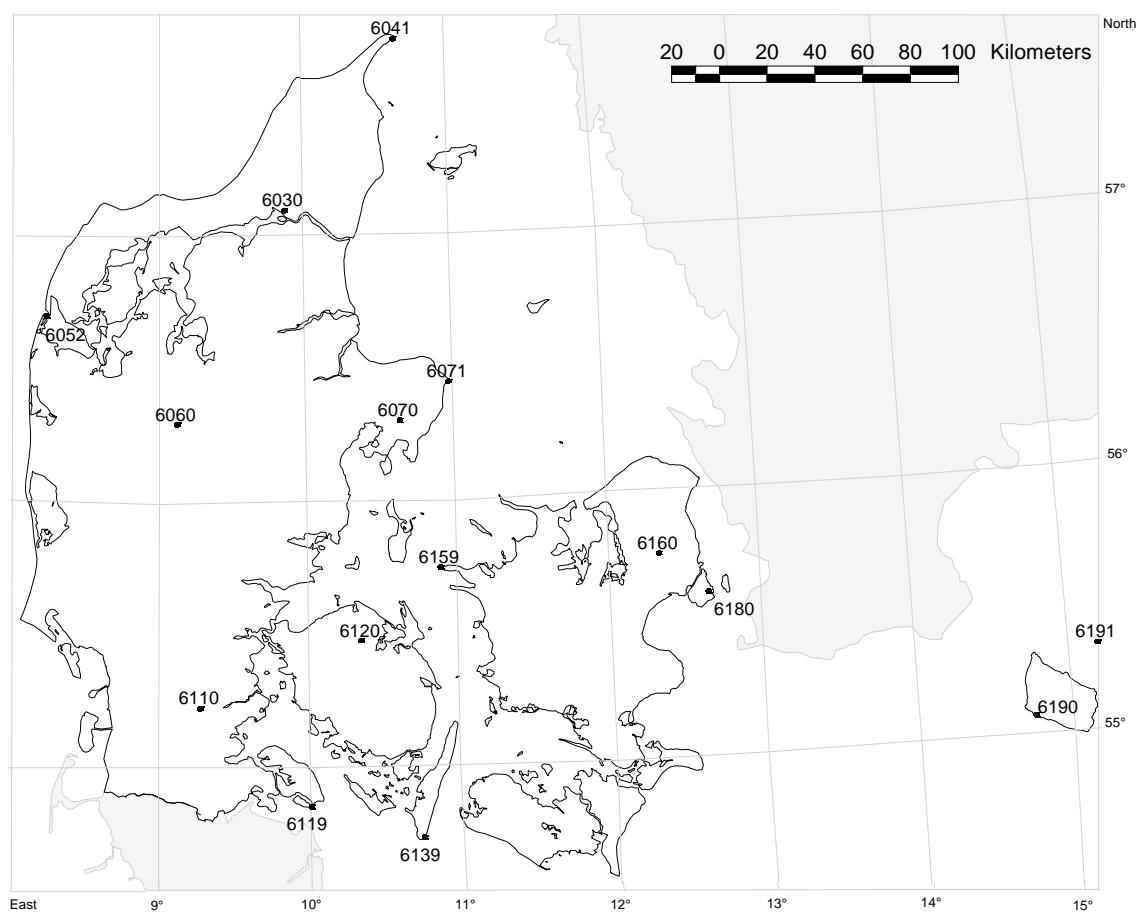
The mean atmospheric pressure also shows a pronounced seasonal variation with an absolute minimum in November due to intensive extratropical cyclonic activity and local minima in March and July. The absolute maximum occurs in May, with local maxima in February and October.

The lowest atmospheric pressure observed during the period 1961-1990 by the 15 relevant stations in this report was 950.2 hPa. This value was measured at Skagen (station 06041) on 14 January 1984 during a violent, hurricane-like, storm from a westerly direction.

The lowest atmospheric pressure included in this report for Copenhagen Airport (station 06180) is 959.6 hPa, but the lowest minimum pressure observed at Copenhagen Airport during the same period is 958.9 hPa measured on 15 November 1977 at 05:00 hours GMT. The reason is that only pressure observations every third hour are included in this report.

The highest atmospheric pressure observed during the period 1961-1990 by the 15 relevant stations in this report was 1052.5 hPa. This too was measured at Skagen, on 18 November 1985.

6.1 Mean atmospheric pressure



Map 6.1. Stations with atmospheric pressure normals. See station catalogue 6.1.

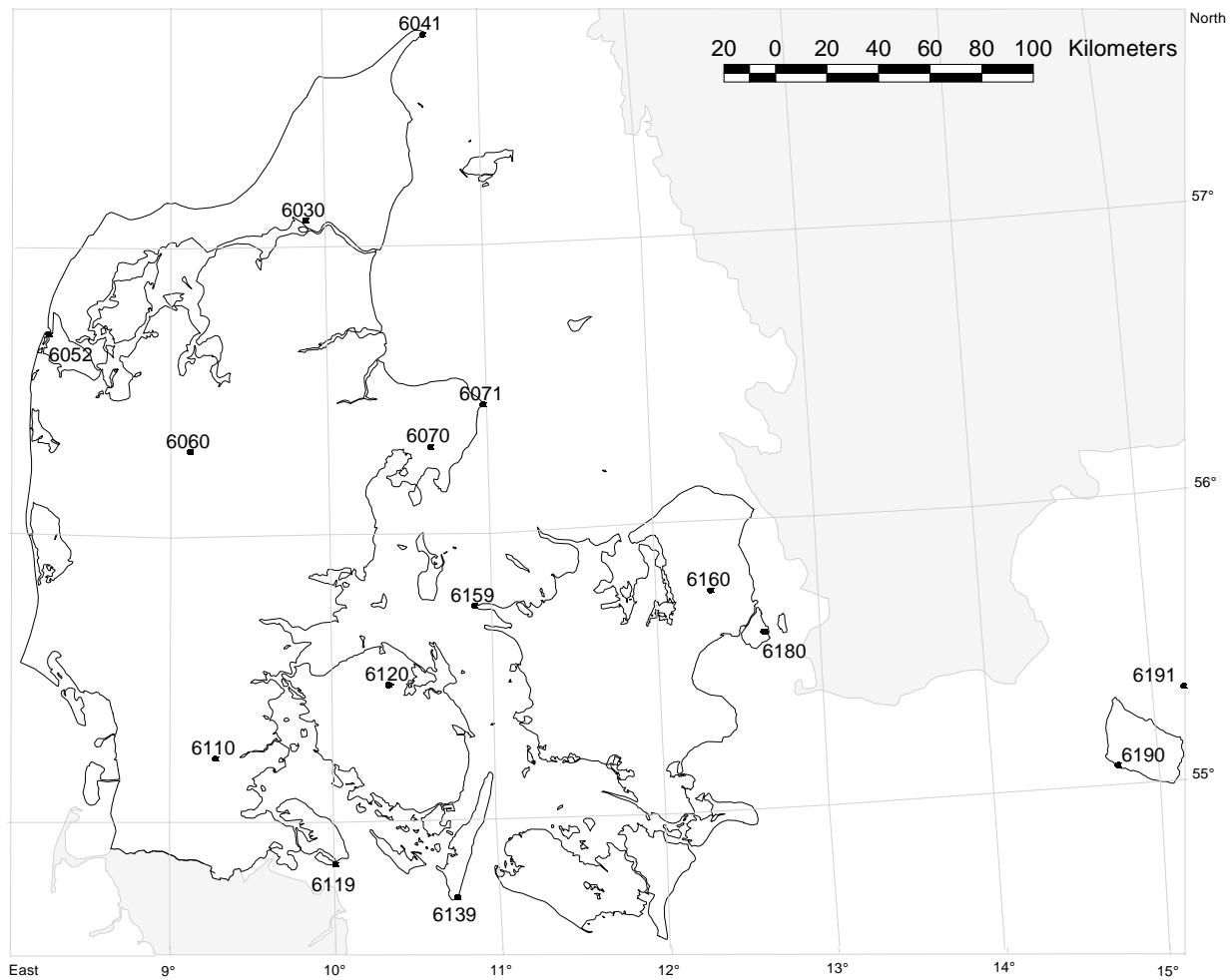
Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	401	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	401	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	401	THYBORØN	56	42	N	8	13	E	2	1961	1990
06060	401	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	401	FSN TIRSTRUP	56	18	N	10	37	E	23	1961	1990
06071	401	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06110	401	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	401	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	401	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	401	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06159	401	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	401	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06180	401	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	401	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	401	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990

Station catalogue 6.1. Element number 401: Mean atmospheric pressure.

Table 6.1.1. Mean atmospheric pressure (hPa). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	1012,1	1014,3	1012,3	1013,0	1014,6	1013,4	1012,5	1012,8	1012,6	1012,9	1009,8	1010,3	1012,5
06041 SKAGEN FYR	1012,3	1014,6	1012,4	1013,2	1015,0	1013,4	1012,4	1012,9	1012,5	1012,9	1009,8	1010,1	1012,6
06052 THYBORØN	1011,9	1014,0	1012,0	1013,0	1014,5	1013,8	1013,1	1013,1	1012,7	1012,7	1009,7	1010,2	1012,5
06060 FSN KARUP	1012,2	1014,2	1012,3	1012,9	1014,5	1013,7	1013,1	1013,2	1013,1	1013,2	1010,2	1010,7	1012,8
06070 FSN TIRSTRUP	1012,5	1014,4	1012,6	1013,0	1014,7	1013,7	1013,0	1013,3	1013,2	1013,6	1010,4	1010,8	1012,9
06071 FORNÆS FYR	1012,5	1014,5	1012,7	1013,1	1014,9	1013,8	1013,0	1013,4	1013,2	1013,6	1010,4	1010,8	1013,0
06110 FSN SKRYDSTRUP	1012,9	1014,4	1012,8	1013,1	1014,6	1014,3	1013,9	1013,8	1013,9	1014,0	1011,0	1011,5	1013,3
06119 KEGNÆS FYR	1013,1	1014,5	1013,0	1013,1	1014,6	1014,3	1014,0	1014,0	1014,1	1014,2	1011,2	1011,7	1013,5
06120 ODENSE LUFTHAVN	1012,9	1014,5	1012,9	1013,2	1014,7	1014,1	1013,6	1013,7	1013,9	1014,1	1011,0	1011,4	1013,3
06139 KELDSNOR FYR	1013,5	1014,7	1013,3	1013,2	1014,7	1014,3	1013,9	1014,0	1014,2	1014,5	1011,6	1012,1	1013,7
06159 RØSNÆS FYR	1012,8	1014,4	1012,8	1013,1	1014,7	1013,9	1013,3	1013,5	1013,5	1013,8	1010,7	1011,1	1013,2
06160 FSN VÆRLØSE	1013,1	1014,7	1013,0	1013,0	1014,8	1013,8	1013,2	1013,6	1013,7	1014,2	1011,1	1011,4	1013,3
06180 KØBENHAVNS LUFTHAVN	1013,4	1014,8	1013,2	1013,2	1015,1	1014,0	1013,3	1013,8	1014,0	1014,5	1011,3	1011,6	1013,5
06190 BORNHOLMS LUFTHAVN	1014,3	1015,4	1014,2	1013,9	1015,8	1014,8	1014,3	1014,6	1015,0	1015,7	1012,4	1012,5	1014,4
06191 CHRISTIANSØ FYR	1014,5	1015,7	1014,4	1014,2	1016,2	1015,0	1014,3	1014,8	1015,1	1015,8	1012,5	1012,6	1014,6

6.2 Absolute maximum atmospheric pressure

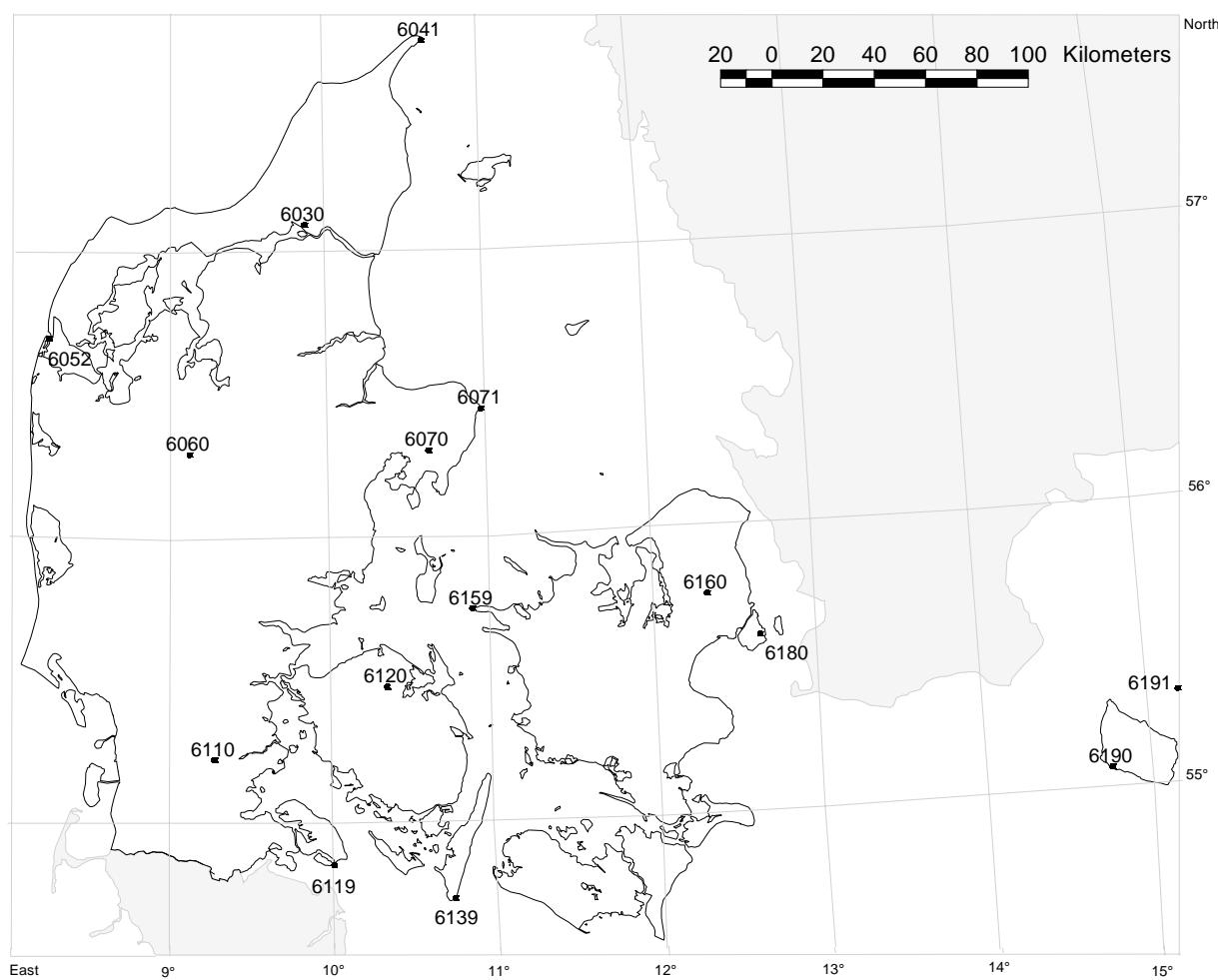


Map 6.2. Stations with maximum atmospheric pressure. See station catalogue 6.2.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	410	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	410	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	410	THYBORØN	56	42	N	8	13	E	2	1961	1990
06060	410	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	410	FSN TIRSTRUP	56	18	N	10	37	E	23	1961	1990
06071	410	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06110	410	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	410	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	410	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	410	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06159	410	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	410	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06180	410	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	410	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	410	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990

Station catalogue 6.2. Element number 410, absolute maximum atmospheric pressure.

6.3 Absolute minimum atmospheric pressure



Map 6.3. Stations with minimum atmospheric pressure. See station catalogue 6.3.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N S	Long. (degrees)	Long. (minutes)	E W	Elevation (m.a.s.)	FIRST year	LAST year
06030	420	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	420	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	420	THYBORØN	56	42	N	8	13	E	2	1961	1990
06060	420	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	420	FSN TIRSTRUP	56	18	N	10	37	E	23	1961	1990
06071	420	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06110	420	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	420	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	420	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	420	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06159	420	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	420	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06180	420	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	420	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	420	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990

Station catalogue 6.3. Element number 420: Absolute minimum atmospheric pressure.



Photo: Robert Hinnenskov

7. Cloud cover

An important consideration concerning cloud cover parameters is that cloud cover is determined by an observer, and not by an instrument. This of course, produces a degree of non-natural variation in the observations between the stations. Another important consideration is that there are two groups of measuring stations included in this report - climatological stations and synoptical stations. At the climatological stations three observations a day are carried out at 08:00, 14:00 and 21:00 hours normal time. At the synoptical stations observations are performed every three hours day and night. Because of the absence of night-time observations and the lower observation frequency at the climatological stations it is difficult to compare the observations. If the observer-related source of error and the difference between the stations are both taken into consideration, a clear tendency for cloud cover can be difficult to discern.

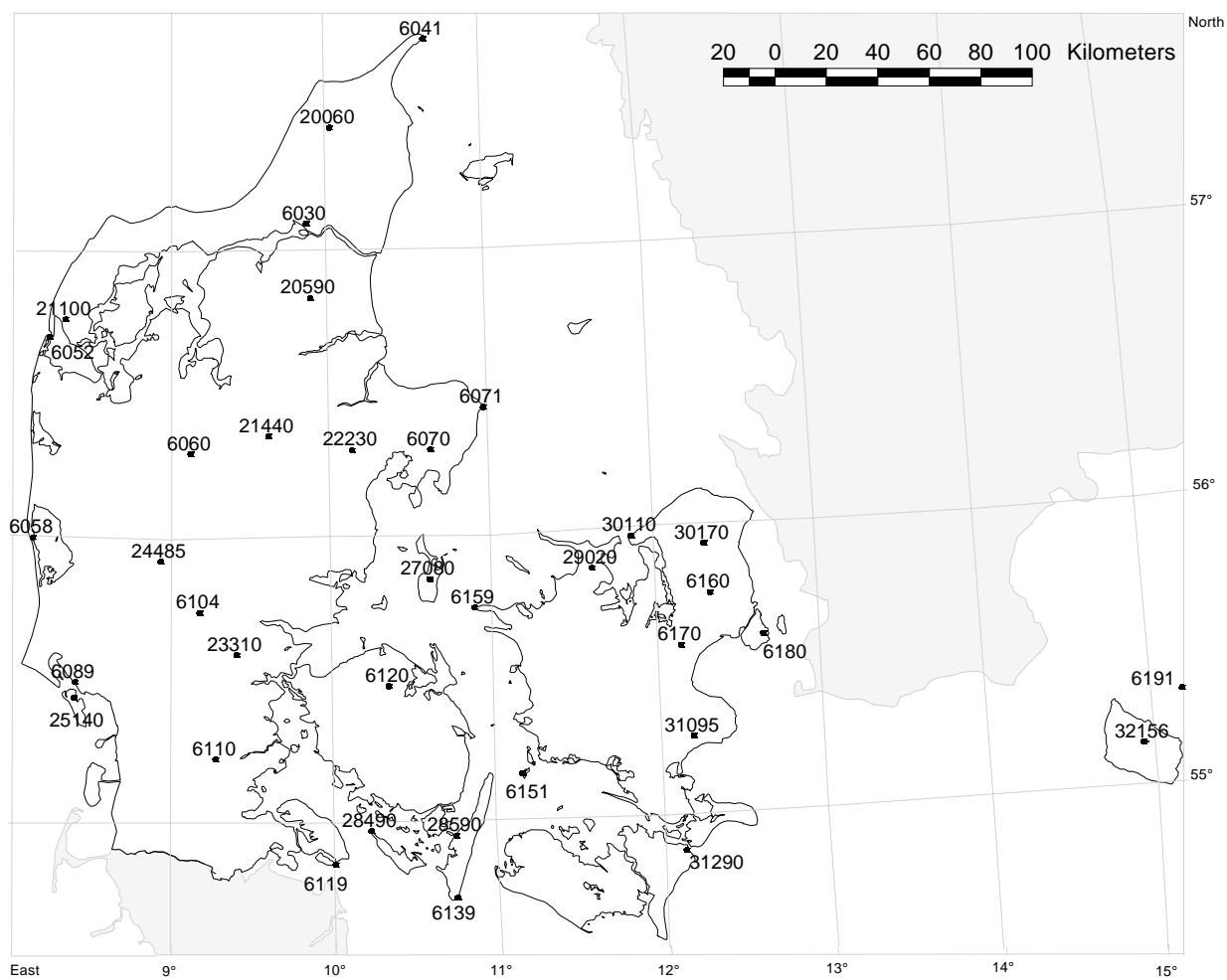
Looking at the table for mean cloud cover, a general tendency can be seen for the inland stations to have more cloud cover than the coastal stations in the summer season. This variation between inland and coastal stations is not noticeable in the winter season. There is also a slight tendency for the west coast stations to have more cloud cover than the other stations and for the stations in the Great Belt and Kattegat regions to have less cloud cover than the other stations. This tendency is distinct for both groups of stations (climatological and synoptical). Some stations in both groups do not show these variations, and this may be due to observer error or local climatological variation not examined in this report.

The tendencies described above can also be seen in the two tables showing numbers of clear days and numbers of cloudy days. For example, inland stations and west coast stations have more cloudy days and fewer clear days than the other stations in the summer season, and coastal stations and stations in the Great Belt and Kattegat regions have fewer cloudy days and more clear days in the summer season.

At first sight the cloud cover observations for Skjoldnæs Lighthouse (station 28490) seem unreliable, the values being too high.

The observations for mean cloud cover show a pronounced seasonal variation with low values in summer time, May to August (57-60%), a minor rise occurring in the values in July. The cloud cover increases from September to a maximum in January (approx. 78%), after which the mean cloud cover steadily decreases until April.

7.1 Mean cloud cover



Map 7.1. Stations with cloud cover normals. See station catalogue 7.1.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	801	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	801	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	801	THYBORØN	56	42	N	8	13	E	2	1963	1990
06058	801	HVIDE SANDE	56	0	N	8	8	E	3	1989	1997
06060	801	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	801	FSN TIRSTRUP	56	18	N	10	37	E	23	1961	1990
06071	801	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	801	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1969	1990
06104	801	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	801	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	801	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	801	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	801	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06151	801	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	801	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	801	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06170	801	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	801	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06191	801	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
20060	801	HJØRRING VANDVÆRK	57	26	N	10	1	E	23	1961	1990
20590	801	SKØRPING	56	50	N	9	53	E	62	1961	1987
21100	801	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	801	TANGE	56	21	N	9	36	E	13	1961	1990
22230	801	ØDUM	56	18	N	10	8	E	61	1961	1986
23310	801	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	801	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	801	NORDBY	55	26	N	8	24	E	6	1961	1990
27080	801	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	801	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1963	1990
28590	801	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	801	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
30110	801	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	801	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1990
31095	801	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1987
31290	801	NÆSGÅRD	54	52	N	12	7	E	15	1961	1990
32156	801	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 7.1. Element number 801: Mean cloud cover.

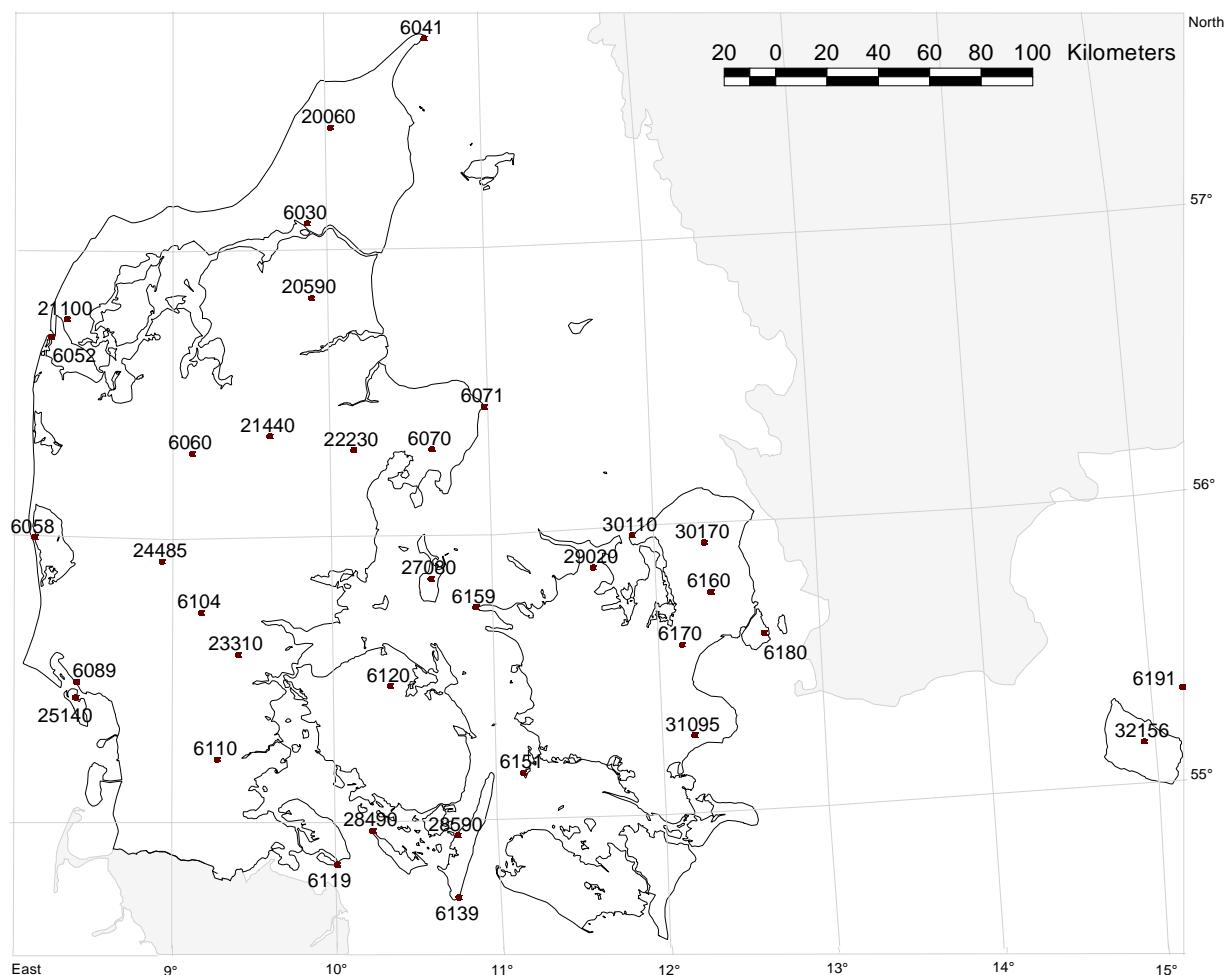
Table 7.1.1. Mean cloud cover (%). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	75	70	66	60	58	55	57	54	58	66	68	72	63
06041 SKAGEN FYR	75	71	66	61	60	57	58	56	60	69	70	73	65
06060 FSN KARUP	75	72	68	63	60	60	63	57	61	68	69	73	66
06070 FSN TIRSTRUP	77	72	67	60	56	54	57	52	57	65	69	74	63
06071 FORNÆS FYR	77	72	66	59	57	55	58	53	58	66	68	73	64
06110 FSN SKRYDSTRUP	77	72	70	63	59	60	62	56	61	67	71	74	66
06119 KEGNÆS FYR	77	71	68	61	58	58	61	55	59	65	71	74	65
06120 ODENSE LUFTHAVN	78	73	69	63	60	60	61	58	61	68	72	74	66
06139 KELDSNOR FYR	77	73	70	62	58	59	62	56	60	67	73	75	66
06151 OMØ FYR	73	68	64	56	52	53	55	50	53	61	66	70	60
06159 RØSNÆS FYR	75	70	63	55	52	51	54	49	54	62	67	71	60
06160 FSN VÆRLØSE	76	71	66	59	54	55	57	52	57	65	69	74	63
06180 KØBENHAVNS LUFTHAVN	77	72	67	60	55	55	56	53	58	66	71	74	64
06191 CHRISTIANSØ FYR	82	77	70	63	56	55	58	55	61	68	78	79	67
20060 HJØRRING VANDVÆRK	78	71	66	61	60	57	60	59	63	70	72	75	66
21100 VESTERVIG	77	72	70	63	64	63	67	63	67	74	74	77	69
21440 TANGE	82	77	73	69	68	67	72	70	70	75	77	79	73
23310 BRAKKER S	80	75	72	64	59	60	65	59	65	72	75	78	69
25140 NORDBY	79	73	70	66	63	63	68	64	70	74	77	77	70
27080 TRANEBJERG	82	75	70	64	60	58	62	56	63	70	74	78	68
28590 RUDKØBING	79	72	69	60	55	54	57	55	57	66	75	77	65
29020 KOLLEKOLLE	78	70	63	56	51	51	57	52	56	65	71	74	62
30110 SPODSBJERG FYR	80	75	70	64	60	60	63	61	64	72	75	78	68
30170 LILLE DYREHAVEGÅRD	80	74	70	63	60	61	62	59	63	71	75	78	68
31290 NÆSGÅRD	83	78	73	64	60	61	65	61	62	70	78	81	70

Table 7.1.2. Mean cloud cover (%). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06052 THYBORØN, 1963-90	74	68	65	58	58	56	62	57	64	70	71	72	65
06058 HVIDE SANDE, 1989-97	71	73	67	59	57	66	60	59	68	69	73	74	66
06089 SÆDENSTRAND FYR, 1969-90	75	69	67	63	60	63	66	60	66	70	70	74	67
06104 BILLUND LUFTHAVN, 1970-97	76	73	71	64	58	61	61	56	63	67	71	75	66
06170 ROSKILDE LUFTHAVN, 1974-97	74	73	69	60	55	59	58	55	62	68	73	76	65
20590 SKØRPING, 1961-87	76	70	65	57	56	52	57	52	59	67	71	73	63
22230 ØDUM, 1961-86	80	75	70	66	64	59	64	59	64	71	73	77	69
24485 DØVLING, 1975-97	81	80	78	72	68	72	71	69	72	77	79	82	75
28490 SKJOLDNÆS FYR, 1963-90	85	80	78	74	73	73	74	71	72	77	81	82	77
31095 VIVEDE OVERDREV, 1973-87	83	80	76	69	61	60	61	61	70	77	80	84	72
32156 ØSTERLARS SV, 1985-97	80	79	69	58	48	58	54	53	64	65	78	79	65

7.2 Number of clear days



Map 7.2. Stations with number of clear days normals. See station catalogue 7.2.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	802	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	802	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	802	THYBORØN	56	42	N	8	13	E	2	1963	1990
06058	802	HVIDE SANDE	56	0	N	8	8	E	3	1989	1997
06060	802	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	802	FSN TIRSTRUP	56	18	N	10	37	E	23	1961	1990
06071	802	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	802	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1969	1990
06104	802	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	802	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	802	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	802	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	802	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06151	802	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	802	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	802	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06170	802	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	802	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06191	802	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
20060	802	HJØRRING VANDVÆRK	57	26	N	10	1	E	23	1961	1990
20590	802	SKØRPING	56	50	N	9	53	E	62	1961	1987
21100	802	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	802	TANGE	56	21	N	9	36	E	13	1961	1990
22230	802	ØDUM	56	18	N	10	8	E	61	1961	1986
23310	802	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	802	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	802	NORDBY	55	26	N	8	24	E	6	1961	1990
27080	802	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	802	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1963	1990
28590	802	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	802	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
30110	802	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	802	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1990
31095	802	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1987
32156	802	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 7.2. Element number 802: Number of clear days.

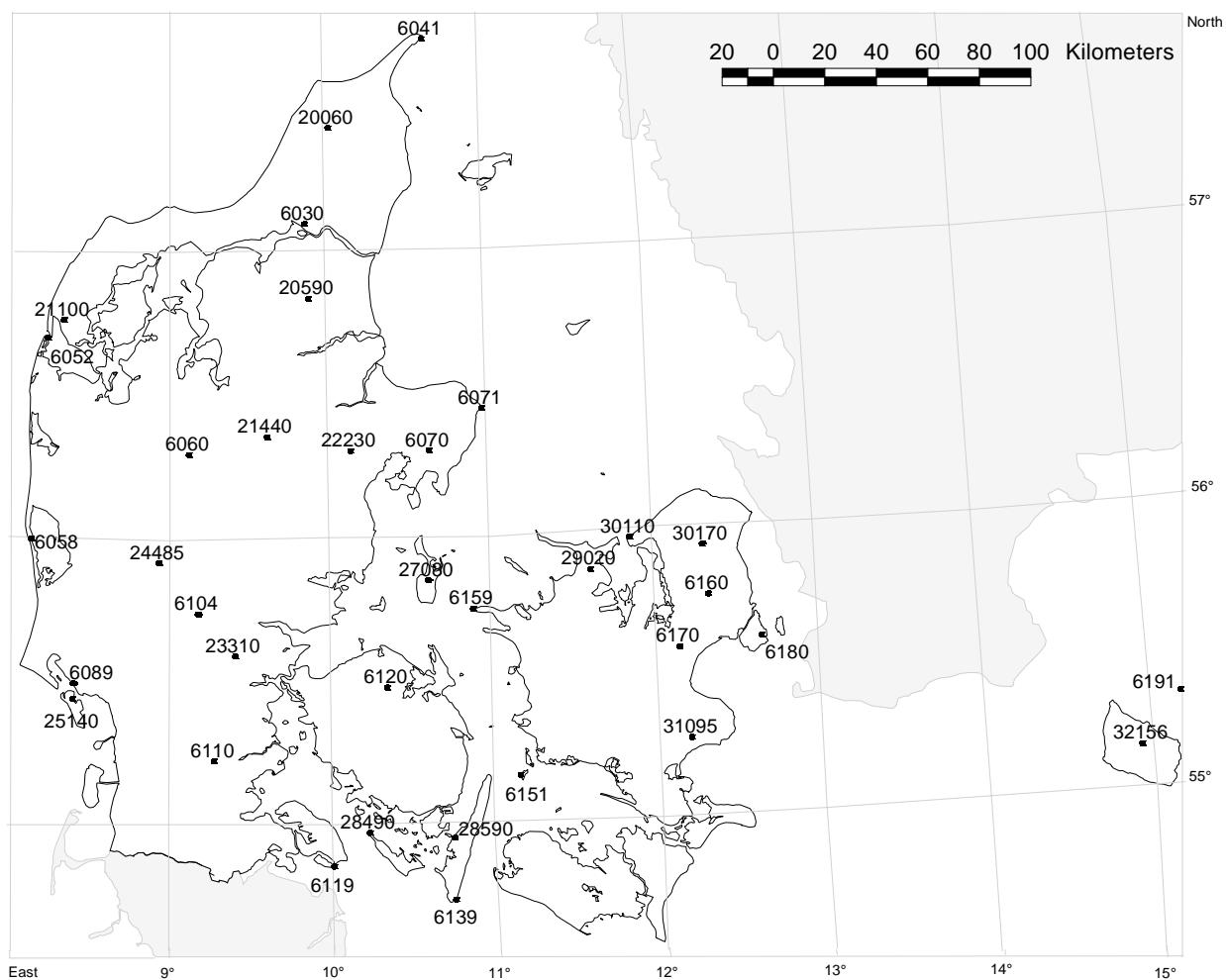
Table 7.2.1. Number of clear days (cloud cover < 20%). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	1,7	2,4	2,7	3,3	3,3	3,2	2,8	3,4	2,0	1,7	1,8	1,7	30
06041 SKAGEN FYR	1,1	2,0	3,0	3,2	3,1	3,1	2,3	3,4	2,4	1,3	1,2	1,4	28
06060 FSN KARUP	2,1	2,2	3,1	2,7	3,0	2,6	2,3	2,8	1,5	1,3	1,7	1,7	27
06070 FSN TIRSTRUP	1,2	1,9	3,0	3,0	3,4	3,6	2,6	3,6	2,1	1,5	1,4	1,1	28
06071 FORNÆS FYR	1,4	2,0	3,6	3,9	3,9	4,6	3,2	4,2	2,4	2,0	2,0	2,0	35
06110 FSN SKRYDSTRUP	1,6	2,2	2,0	2,2	2,7	2,5	2,3	2,6	1,7	1,6	1,2	1,5	24
06119 KEGNÆS FYR	1,5	2,7	2,8	3,3	4,1	4,2	3,2	3,6	2,7	2,2	1,4	1,5	33
06120 ODENSE LUFTHAVN	1,2	1,7	2,0	2,4	3,4	3,1	2,5	2,8	1,6	1,6	1,1	1,2	25
06139 KELDSNOR FYR	1,1	2,3	2,4	3,2	4,1	3,6	2,9	3,2	2,1	1,8	1,2	1,1	29
06151 OMØ FYR	1,6	2,7	2,8	3,9	5,0	4,8	4,2	4,7	2,8	2,6	1,7	1,9	39
06159 RØSNÆS FYR	1,5	2,4	3,9	4,8	5,5	5,2	3,9	5,0	3,3	2,5	1,8	1,8	42
06160 FSN VÆRLØSE	1,4	2,1	2,7	3,1	3,7	3,8	2,7	3,8	2,2	1,6	1,3	1,3	30
06180 KØBENHAVNS LUFTHAVN	1,0	2,0	2,5	2,5	3,5	3,7	2,8	3,4	1,9	1,7	0,9	0,9	27
06191 CHRISTIANSØ FYR	1,2	1,9	2,6	3,4	5,3	5,0	3,7	4,1	2,9	2,2	1,0	1,0	34
20060 HJØRRING VANDVÆRK	1,3	2,6	3,6	3,5	3,9	3,9	3,1	3,7	2,6	1,8	1,6	1,3	33
21100 VESTERVIG	1,7	1,9	2,5	3,0	2,6	2,3	1,9	2,4	1,2	0,7	0,8	0,9	22
21440 TANGE	1,3	1,6	2,1	2,4	3,0	2,8	1,5	1,8	1,4	1,0	1,8	1,3	22
23310 BRAKKER S	1,7	2,0	2,8	3,6	4,5	3,8	3,0	3,3	2,0	1,5	1,3	1,3	31
25140 NORDBY	1,6	1,9	2,8	2,9	3,5	3,3	2,8	3,2	1,5	1,3	1,1	1,2	27
27080 TRANEBJERG	1,4	2,2	2,9	4,3	5,3	4,9	4,0	4,9	2,6	2,0	1,4	1,3	37
28590 RUDKØBING	1,2	2,3	2,9	3,4	5,6	5,1	4,5	4,2	3,2	2,8	1,5	0,9	38
29020 KOLLEKOLLE	1,6	2,7	4,2	5,1	6,6	6,2	4,2	5,0	3,3	2,7	1,5	1,6	45
30110 SPODSBJERG FYR	1,2	1,4	2,2	2,7	3,0	3,3	2,3	2,1	1,5	1,3	0,8	0,8	22
30170 LILLE DYREHAVEGÅRD	1,8	2,3	3,4	4,1	4,6	4,9	4,2	4,0	2,4	2,1	1,6	1,6	37

Table 7.2.2. Number of clear days (cloud cover < 20%). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06052 THYBORØN, 1963-90	2,0	3,0	4,4	5,1	5,5	4,9	3,9	4,7	2,5	2,0	1,9	1,6	42
06058 HVIDE SANDE, 1989-97	2,3	1,8	2,8	3,7	4,8	2,2	3,9	3,4	1,4	1,9	1,3	1,4	31
06089 SÆDENSTRAND FYR, 1969-90	1,7	2,9	2,4	2,7	3,3	2,3	2,4	2,5	1,4	1,6	1,6	1,0	26
06104 BILLUND LUFTHAVN, 1970-97	2,0	2,5	2,1	2,2	3,3	2,4	2,4	2,7	1,3	1,5	1,3	1,2	25
06170 ROSKILDE LUFTHAVN, 1974-97	1,6	2,0	2,3	2,5	4,1	3,0	2,5	2,8	1,2	1,6	1,5	1,3	26
20590 SKØRPING, 1961-87	2,0	3,1	4,2	4,8	5,3	5,3	3,8	4,9	3,1	2,7	2,1	1,9	43
22230 ØDUM, 1961-86	1,4	1,8	2,4	2,4	3,5	3,9	2,2	2,7	1,4	1,2	1,1	1,0	25
24485 DØVLING, 1975-97	1,0	1,0	0,7	0,9	2,4	1,0	1,3	1,0	0,5	0,6	0,8	0,6	12
28490 SKJOLDNÆS FYR, 1963-90	0,3	0,4	0,6	0,8	1,1	1,1	0,8	0,8	0,5	0,5	0,3	0,4	8
31095 VIVEDE OVERDREV, 1973-87	0,4	0,7	0,7	0,7	2,7	3,8	2,3	2,3	0,5	0,3	0,1	0,7	15
32156 ØSTERLARS SV, 1985-97	1,4	1,3	2,0	3,3	8,1	3,8	5,7	3,7	1,5	2,9	1,2	0,8	36

7.3 Number of cloudy days



Map 7.3. Stations with number of cloudy days normals. See station catalogue 7.3.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	803	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	803	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	803	THYBORØN	56	42	N	8	13	E	2	1963	1990
06058	803	HVIDE SANDE	56	0	N	8	8	E	3	1989	1997
06060	803	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	803	FSN TIRSTRUP	56	18	N	10	37	E	23	1961	1990
06071	803	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	803	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1969	1990
06104	803	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	803	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	803	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	803	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	803	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06151	803	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	803	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	803	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06170	803	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	803	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06191	803	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
20060	803	HJØRRING VANDVÆRK	57	26	N	10	1	E	23	1961	1990
20590	803	SKØRPING	56	50	N	9	53	E	62	1961	1987
21100	803	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	803	TANGE	56	21	N	9	36	E	13	1961	1990
22230	803	ØDUM	56	18	N	10	8	E	61	1961	1986
23310	803	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	803	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	803	NORDBY	55	26	N	8	24	E	6	1961	1990
27080	803	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	803	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1963	1990
28590	803	RUDKØBING	54	57	N	10	43	E	10	1961	1990
29020	803	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
30110	803	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	803	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1990
31095	803	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1987
32156	803	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 7.3. Element number 803: Number of cloudy days.

Table 7.3.1. Number of cloudy days (cloud cover > 80%). Climatological standard normals, 1961-1990.

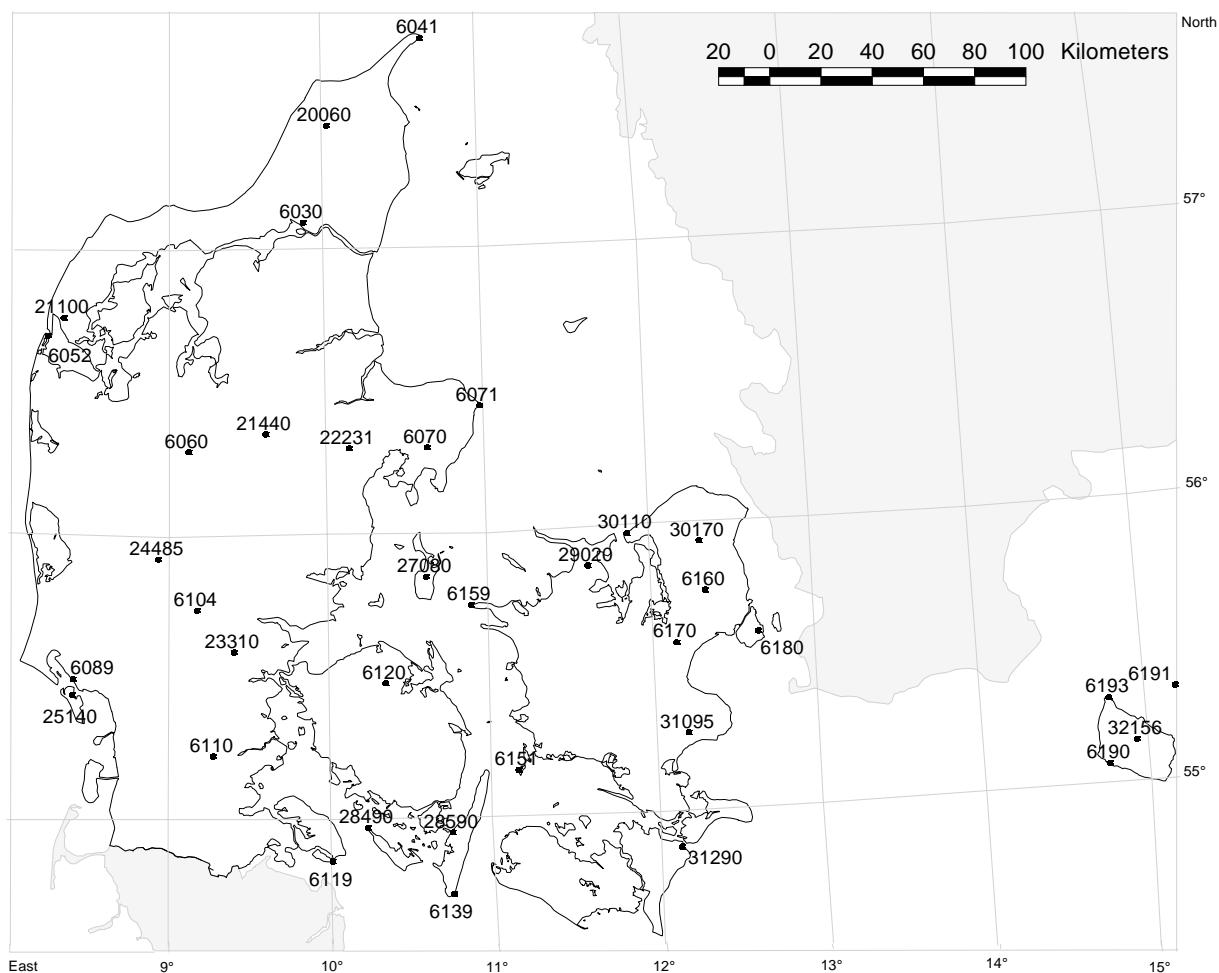
STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	17	13	13	10	8,6	6,5	6,5	5,1	6,7	11	12	15	124
06041 SKAGEN FYR	17	14	13	10	9,5	7,2	6,9	6,6	8,3	13	13	16	133
06060 FSN KARUP	17	15	14	10	9,4	8,1	8,8	6,7	7,6	12	13	16	137
06070 FSN TIRSTRUP	18	14	13	9,4	6,6	5,6	5,6	4,5	6,0	11	13	16	122
06071 FORNÆS FYR	18	15	13	10	7,8	7,1	7,7	5,6	7,4	12	13	16	132
06110 FSN SKRYDSTRUP	18	14	14	10	8,3	7,4	8,5	5,8	7,6	12	14	16	136
06119 KEGNÆS FYR	17	14	14	9,4	8,7	8,7	8,9	6,1	7,3	11	14	16	136
06120 ODENSE LUFTHAVN	18	15	14	10	8,9	8,4	8,3	6,8	7,8	12	13	15	139
06139 KELDSNOR FYR	18	14	15	10	8,4	8,4	9,4	6,9	7,7	12	15	17	141
06151 OMØ FYR	16	13	11	7,9	5,8	5,2	4,7	3,6	5,2	9,3	11	14	106
06159 RØSNÆS FYR	17	14	11	8,3	6,3	5,3	5,7	4,1	5,6	10	11	15	113
06160 FSN VÆRLØSE	18	14	12	8,6	6,0	5,5	6,3	4,5	6,1	11	13	16	121
06180 KØBENHAVNS LUFTHAVN	18	15	12	8,3	5,8	5,3	5,5	4,1	5,9	11	14	16	120
06191 CHRISTIANSØ FYR	21	17	15	11	8,7	7,3	7,9	6,8	8,9	13	17	19	153
20060 HJØRRING VANDVÆRK	18	14	13	10	9,9	8,1	8,1	7,6	9,0	14	14	17	142
21100 VESTERVIG	17	13	13	10	11	9,4	10	8,6	9,9	14	14	16	148
21440 TANGE	20	17	16	14	14	12	14	13	12	16	17	19	185
23310 BRAKKER S	19	15	16	11	9,7	9,0	11	8,1	9,5	14	15	17	155
25140 NORDBY	18	14	14	12	11	10	12	10	12	15	16	17	162
27080 TRANEBJERG	20	16	15	12	11	9,2	11	8,0	10	14	15	18	160
28590 RUDKØBING	19	14	14	9,8	7,6	6,7	7,2	6,9	6,8	12	15	17	136
29020 KOLLEKOLLE	18	13	12	8,9	7,1	6,4	8,0	5,8	6,9	12	13	16	128
30110 SPODSBJERG FYR	19	15	14	11	8,7	8,2	9,3	7,6	8,9	14	15	17	147
30170 LILLE DYREHAVEGÅRD	19	16	15	11	9,7	9,6	10	8,4	9,2	14	15	17	154

Table 7.3.2. Number of cloudy days (cloud cover > 80%). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06052 THYBORØN, 1963-90	17	13	14	10	10	8,6	11	8,1	9,8	14	13	15	143
06058 HVIDE SANDE, 1989-97	14	13	12	8,3	8,2	11	8,6	8,0	10	13	14	15	136
06089 SÆDENSTRAND FYR, 1969-90	17	13	13	10	9,8	9,3	11	7,5	9,3	13	12	16	141
06104 BILLUND LUFTHAVN, 1970-97	17	14	15	10	8,3	8,4	7,8	6,0	8,7	12	13	15	136
06170 ROSKILDE LUFTHAVN, 1974-97	16	15	13	8,1	6,8	7,0	6,7	5,1	7,9	13	15	16	130
20590 SKØRPING, 1961-87	17	14	13	8,9	8,9	6,7	7,6	6,0	8,0	12	13	15	131
22230 ØDUM, 1961-86	19	16	14	11	10	8,8	9,7	7,8	9,8	13	14	17	151
24485 DØVLING, 1975-97	19	17	17	13	12	14	13	12	12	16	16	19	181
28490 SKJOLDNÆS FYR, 1963-90	21	17	17	14	15	14	15	12	13	16	18	20	190
31095 VIVEDE OVERDREV, 1973-87	20	17	17	12	8,9	8,7	8,5	7,7	11	16	18	21	167
32156 ØSTERLARS SV, 1985-97	21	17	14	8,3	6,9	8,6	7,8	5,1	9,4	12	16	19	145

8. Weather

8.1 Number of days with snowfall



Map 8.1. Stations with number of days with snowfall normals. See station catalogue 8.1.

Snowfall can occur from late October to early May, but occurs most frequently in the period December - March. It is the coldest areas (ie. the inland stations) that most often experience snowfall.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	607	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	607	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	607	THYBORØN	56	42	N	8	13	E	2	1961	1990
06060	607	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	607	FSN TIRSTRUP	56	18	N	10	37	E	23	1961	1990
06071	607	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	607	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1961	1990
06104	607	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	607	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	607	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	607	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	607	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06151	607	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	607	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	607	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06170	607	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	607	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	607	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	607	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
06193	607	HAMMER ODDE FYR	55	18	N	14	47	E	11	1961	1990
20060	607	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1961	1990
21100	607	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	607	TANGE	56	21	N	9	36	E	13	1961	1990
22231	607	ØDUM II	56	18	N	10	8	E	61	1961	1986
23310	607	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	607	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	607	NORDBY	55	26	N	8	24	E	6	1961	1990
27080	607	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	607	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	607	RUDKØBING	54	57	N	10	43	E	10	1971	1990
29020	607	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
30110	607	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	607	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1986
31095	607	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	607	NÆSGÅRD	54	52	N	12	7	E	15	1971	1990
32156	607	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 8.1. Element number 607: Number of days with snowfall.

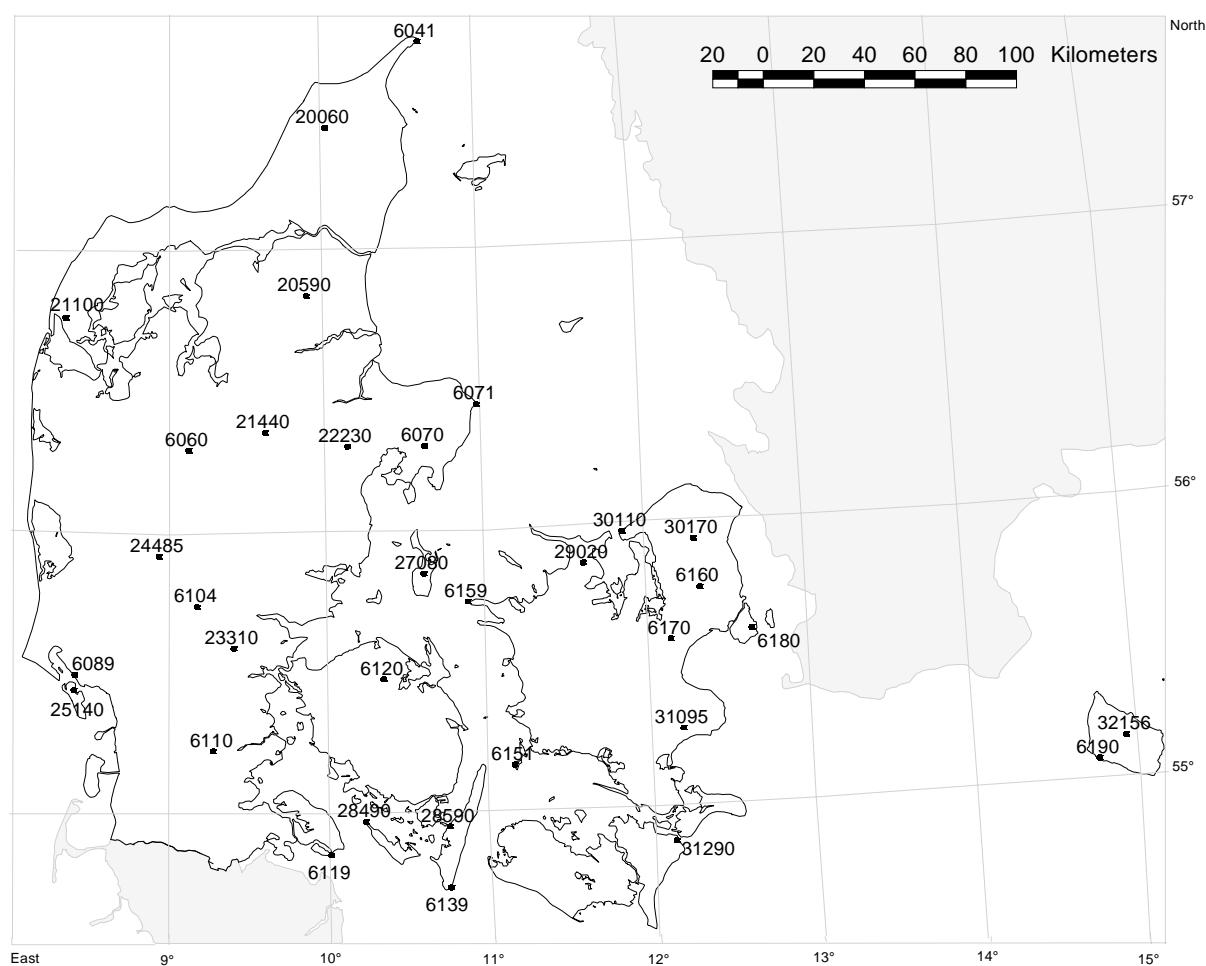
Table 8.1.1. Number of days with snowfall. Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	8,6	6,6	4,7	1,8	0,0	0	0	0	0	0,0	2,1	6,3	30
06041 SKAGEN FYR	6,7	5,7	4,0	1,4	0,0	0	0	0	0	0,1	1,4	4,3	24
06052 THYBORØN	5,5	4,3	3,4	0,9	0,0	0	0	0	0	0	0,7	3,9	19
06060 FSN KARUP	8,5	7,2	5,5	2,4	0,1	0	0	0	0	0,1	2,6	7,1	34
06070 FSN TIRSTRUP	8,6	7,5	5,5	2,2	0,1	0	0	0	0	0,1	2,6	6,4	33
06071 FORNÆS FYR	7,6	5,8	4,4	1,8	0,1	0	0	0	0	0,1	1,3	4,7	26
06089 SÆDENSTRAND FYR	6,9	5,7	4,9	2,0	0	0	0	0	0	0,1	1,8	5,4	27
06110 FSN SKRYDSTRUP	7,9	7,0	5,6	2,3	0,1	0	0	0	0	0,1	2,3	6,7	32
06119 KEGNÆS FYR	5,7	5,8	3,9	1,7	0	0	0	0	0	0,1	1,0	4,0	22
06120 ODENSE LUFTHAVN	7,6	6,0	4,8	1,8	0,0	0	0	0	0	0	1,6	5,0	27
06139 KELDSNOR FYR	7,2	6,0	4,3	1,5	0,0	0	0	0	0	0,1	1,7	4,9	26
06151 OMØ FYR	6,0	5,1	3,8	1,5	0	0	0	0	0	0,1	1,2	3,9	22
06159 RØSNÆS FYR	6,6	5,4	4,0	1,7	0,0	0	0	0	0	0,1	1,2	4,5	24
06160 FSN VÆRLØSE	7,7	6,6	5,1	2,2	0,0	0	0	0	0	0,2	2,1	5,9	30
06180 KØBENHAVNS LUFTHAVN	7,6	6,3	5,0	2,1	0,0	0	0	0	0	0,1	2,0	5,8	29
06190 BORNHOLMS LUFTHAVN	7,4	6,6	5,2	1,5	0,1	0	0	0	0	0	1,9	5,0	28
06191 CHRISTIANSØ FYR	5,6	5,3	4,3	1,2	0,1	0	0	0	0	0,1	1,5	4,1	22
06193 HAMMER ODDE FYR	8,3	7,4	5,6	2,3	0,1	0	0	0	0	0	2,4	6,3	32
20060 HJØRRING VANDVÆRK	8,8	5,9	5,7	2,9	0,3	0	0	0	0	0,3	3,4	7,0	34
21100 VESTERVIG	8,8	7,7	7,1	2,6	0,2	0	0	0	0	0,0	2,4	7,1	36
21440 TANGE	8,3	7,2	5,7	3,2	0,2	0	0	0	0	0,1	2,9	6,7	34
23310 BRAKKER S	7,1	6,3	5,8	3,2	0,2	0	0	0	0	0,1	2,5	6,0	31
25140 NORDBY	7,0	5,5	5,2	2,4	0,3	0	0	0	0	0,1	2,0	5,4	28
27080 TRANEBJERG	6,7	5,3	4,9	2,3	0,1	0	0	0	0	0,1	1,7	4,4	26
28490 SKJOLDNÆS FYR	6,4	5,8	4,8	2,4	0,1	0	0	0	0	0,1	1,7	4,9	26
29020 KOLLEKOLLE	6,5	5,7	5,0	2,2	0,1	0	0	0	0	0,2	2,0	5,6	27
30110 SPODSBJERG FYR	7,3	5,3	5,1	2,7	0,1	0	0	0	0	0,1	2,6	6,2	30

Table 8.1.2. Number of days with snowfall. Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06104 BILLUND LUFTHAVN, 1970-97	7,0	6,3	5,1	1,8	0,2	0	0	0	0	0,3	2,9	6,1	30
06170 ROSKILDE LUFTHAVN, 1974-97	5,5	4,0	3,6	1,3	0,1	0	0	0	0	0,1	1,7	4,7	21
22231 ØDUM II, 1961-86	10	8,3	6,3	3,7	0,3	0	0	0	0	0,1	3,0	7,5	39
24485 DØVLING, 1975-97	7,8	6,8	6,3	2,8	0,2	0	0	0	0	0,1	2,4	6,2	33
28590 RUDKØBING, 1971-90	7,1	5,5	5,5	1,7	0,2	0	0	0	0	0,2	2,5	5,3	28
30170 LILLE DYREHAVEGÅRD, 1961-86	8,8	6,4	5,8	3,0	0,1	0	0	0	0	0,2	2,8	7,5	35
31095 VIVEDE OVERDREV, 1973-91	7,2	6,0	5,4	2,4	0,1	0	0	0	0	0,1	2,0	5,3	28
31290 NÆSGÅRD, 1971-90	5,8	5,3	4,6	1,8	0,2	0	0	0	0	0,1	2,1	4,2	24
32156 ØSTERLARS SV, 1985-97	9,8	9,3	6,5	3,2	0,2	0	0	0	0	0,4	2,8	6,9	39

8.2 Number of days with snow cover



Map 8.2. Stations with number of days with snow cover normals. See station catalogue 8.2.

Snow cover may be experienced during the period November to early May, in isolated cases also in October, but it is most frequent during the months of December - March. It is the coldest (ie. the inland) stations that have the largest number of days with snow cover and which have the most prolonged snow cover.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	701	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	701	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06060	701	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	701	FSN TIRSTRUP	56	18	N	10	37	E	23	1961	1990
06071	701	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	701	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1961	1990
06104	701	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1972	1997
06110	701	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	701	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	701	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	701	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06151	701	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	701	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	701	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06170	701	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	701	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	701	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
20060	701	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1968	1990
20590	701	SKØRPING	56	50	N	9	53	E	62	1961	1987
21100	701	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	701	TANGE	56	21	N	9	36	E	13	1961	1990
22230	701	ØDUM	56	18	N	10	8	E	61	1961	1986
23310	701	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	701	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	701	NORDBY	55	26	N	8	24	E	6	1961	1990
27080	701	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	701	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1964	1990
28590	701	RUDKØBING	54	57	N	10	43	E	10	1971	1990
29020	701	KOLLEKOLLE	55	52	N	11	36	E	30	1971	1990
30110	701	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	701	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1986
31095	701	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	701	NÆSGÅRD	54	52	N	12	7	E	15	1961	1990
32156	701	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 8.2. Element number 701: Number of days with snow cover.

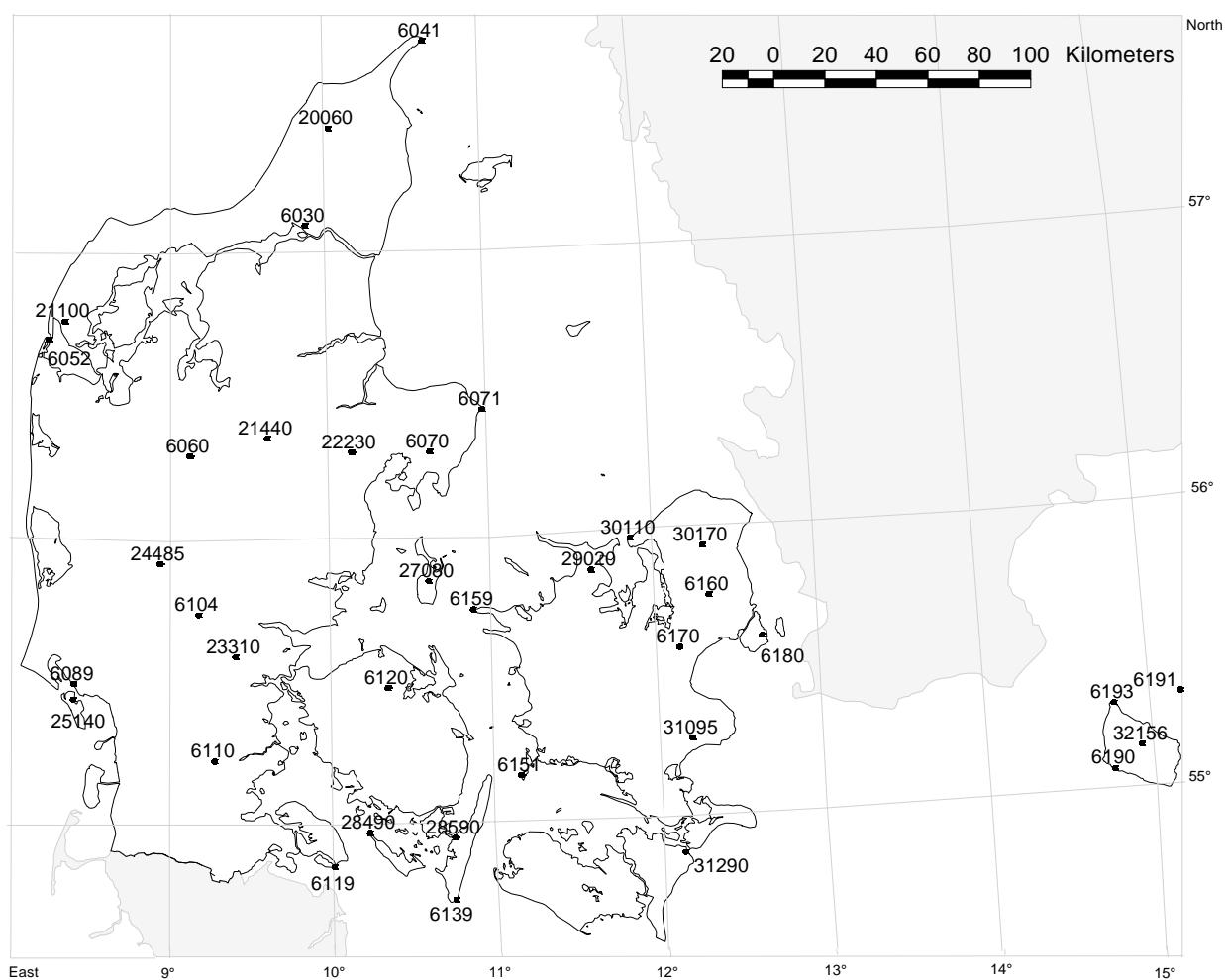
Table 8.2.1. Number of days with snow cover. Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	16	15	8,1	1,3	0,0	0	0	0	0	0	3,1	10	54
06041 SKAGEN FYR	13	13	6,5	1,1	0	0	0	0	0	0,0	1,0	5,5	40
06060 FSN KARUP	16	13	7,3	1,4	0	0	0	0	0	0	2,3	9,8	51
06070 FSN TIRSTRUP	16	15	9,3	1,5	0,0	0	0	0	0	0,1	2,4	9,2	54
06071 FORNÆS FYR	15	12	7,6	0,9	0	0	0	0	0	0	1,2	6,5	43
06089 SÆDENSTRAND FYR	12	9,1	4,6	0,7	0	0	0	0	0	0	1,1	5,2	33
06110 FSN SKRYDSTRUP	15	13	6,2	1,7	0	0	0	0	0	0,0	1,9	9,5	47
06119 KEGNÆS FYR	10	9,1	5,5	0,6	0	0	0	0	0	0,0	1,1	4,7	31
06120 ODENSE LUFTHAVN	14	11	5,8	0,9	0	0	0	0	0	0	1,9	7,1	41
06139 KELDSNOR FYR	9,5	8,0	4,4	0,8	0	0	0	0	0	0	1,0	5,1	29
06151 OMØ FYR	10	8,4	4,8	0,6	0	0	0	0	0	0,1	0,6	3,6	28
06159 RØSNÆS FYR	12	10	6,6	0,7	0	0	0	0	0	0	0,9	4,7	35
06160 FSN VÆRLØSE	16	14	8,1	1,5	0	0	0	0	0	0	1,5	9,0	50
06180 KØBENHAVNS LUFTHAVN	14	11	6,8	1,2	0	0	0	0	0	0	1,3	7,3	41
06190 BORNHOLMS LUFTHAVN	13	14	10	1,1	0,0	0	0	0	0	0	1,5	7,3	47
21100 VESTERVIG	12	11	4,9	0,5	0	0	0	0	0	0	1,6	5,9	36
21440 TANGE	14	12	5,2	0,9	0	0	0	0	0	0	2,0	6,3	40
23310 BRAKKER S	13	11	5,6	0,9	0	0	0	0	0	0,0	2,3	8,0	41
25140 NORDBY	12	9,3	4,8	0,6	0	0	0	0	0	0	1,3	5,5	34
27080 TRANEBJERG	11	8,6	4,7	0,5	0	0	0	0	0	0	0,9	4,7	30
30110 SPODSBJERG FYR	13	12	6,0	0,8	0	0	0	0	0	0	1,3	6,1	39
31290 NÆSGÅRD	9,7	8,5	4,2	0,6	0	0	0	0	0	0	1,2	4,1	28

Table 8.2.2. Number of days with snow cover. Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06104 BILLUND LUFTHAVN, 1972-97	14	12	7,3	1,0	0,1	0	0	0	0	0,1	2,5	7,9	45
06170 ROSKILDE LUFTHAVN, 1974-97	13	12	6,7	0,5	0	0	0	0	0	0	1,6	6,3	40
20060 HJØRRING VANDVÆRK, 1968-90	15	15	7,6	0,9	0	0	0	0	0	0	2,3	7,3	49
20590 SKØRPING, 1961-87	18	16	9,2	1,4	0	0	0	0	0	0,0	2,5	9,1	56
22230 ØDUM, 1961-86	17	14	6,5	1,6	0	0	0	0	0	0,0	2,5	9,4	51
24485 DØVLING, 1975-97	14	13	6,4	0,5	0	0	0	0	0	0,1	2,2	7,9	44
28490 SKJOLDNÆS FYR, 1964-90	10	8,8	4,2	0,3	0	0	0	0	0	0	0,5	3,4	27
28590 RUDKØBING, 1971-90	11	10	5,3	0,1	0	0	0	0	0	0	1,3	4,6	33
29020 KOLLEKOLLE, 1971-90	12	9,4	4,4	0,3	0	0	0	0	0	0	2,0	5,5	34
30170 LILLE DYREHAVEGÅRD, 1961-86	17	16	9,2	1,4	0,0	0	0	0	0	0	2,0	10	56
31095 VIVEDE OVERDREV, 1973-91	13	12	7,4	0,6	0	0	0	0	0	0	1,3	6,3	41
32156 ØSTERLARS SV, 1985-97	14	15	14	4,4	0,2	0	0	0	0	0	3,2	5,4	56

8.3 Number of days with fog (visibility < 1km)



Map 8.3. Stations with number of days with fog normals. See station catalogue 8.3.

Fog can occur all year round but foggy days are generally most frequent in the months of January, February and October and least frequent in the summer months of June and July. Coastal stations tend to record more fog in spring than inland stations. This may be explained by the advective fog formed over the relatively cold sea when mild and moist air is transported up over the country from the south and south west. In autumn and winter, when the land is colder than the sea, the advective fog is more frequent inland than at the coast.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	702	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	702	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	702	THYBORØN	56	42	N	8	13	E	2	1961	1990
06060	702	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	702	FSN TIRSTRUP	56	18	N	10	37	E	23	1961	1990
06071	702	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	702	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1961	1990
06104	702	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	702	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	702	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	702	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	702	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06151	702	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	702	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	702	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06170	702	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	702	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	702	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	702	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
06193	702	HAMMER ODDE FYR	55	18	N	14	47	E	11	1961	1990
20060	702	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1961	1990
21100	702	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	702	TANGE	56	21	N	9	36	E	13	1961	1990
22230	702	ØDUM	56	18	N	10	8	E	61	1961	1986
23310	702	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	702	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	702	NORDBY	55	26	N	8	24	E	6	1961	1990
27080	702	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	702	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	702	RUDKØBING	54	57	N	10	43	E	10	1971	1990
29020	702	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
30110	702	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	702	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1986
31095	702	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	702	NÆSGÅRD	54	52	N	12	7	E	15	1971	1990
32156	702	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 8.3. Element number 702: Number of days with fog (vis. < 1km).

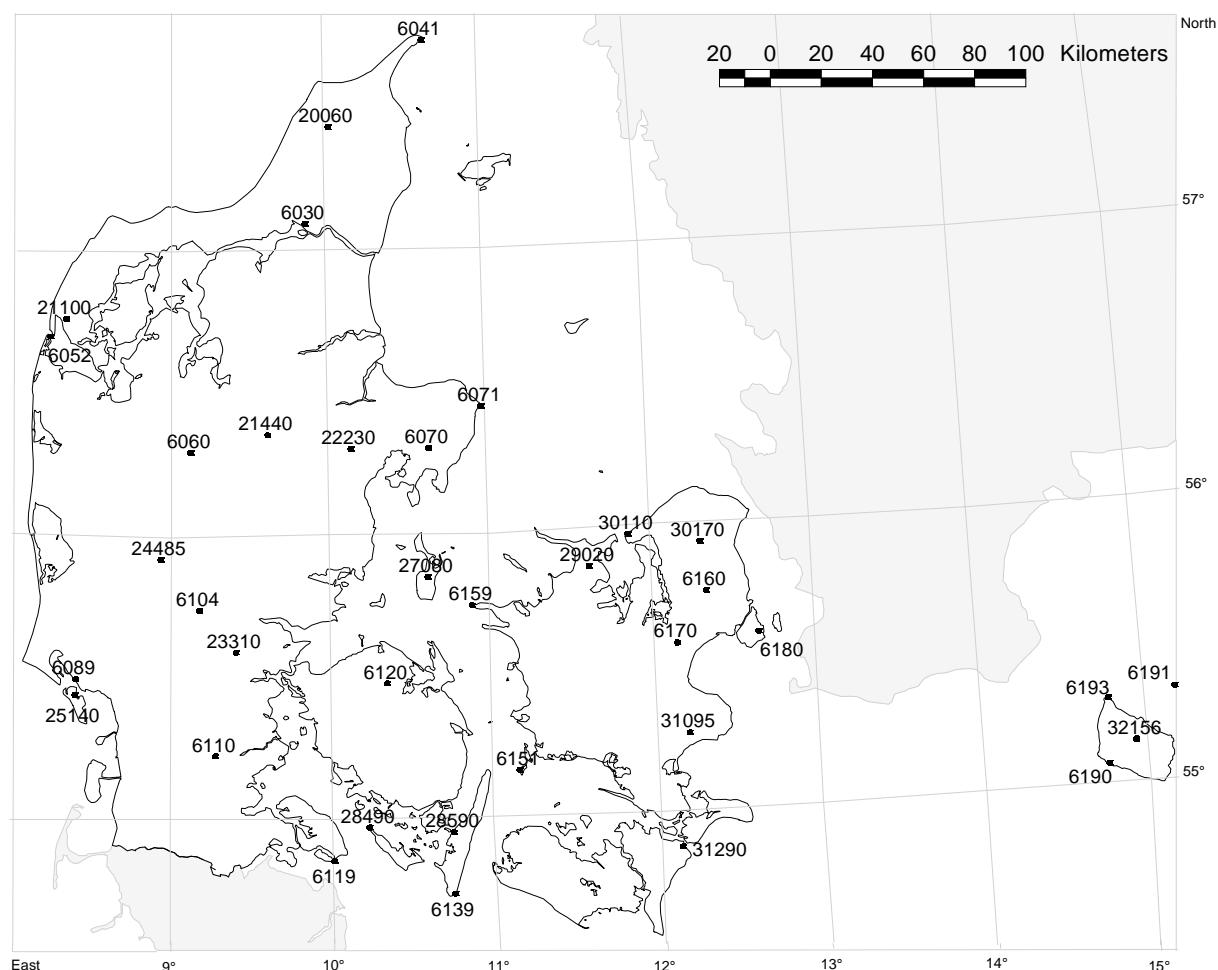
Table 8.3.1. Number of days with fog (visibility < 1km). Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	9,1	8,6	7,1	7,5	5,7	6,3	5,1	7,7	7,7	8,8	6,2	7,5	87
06041 SKAGEN FYR	5,5	6,6	7,3	7,5	7,2	5,4	5,5	4,7	2,8	4,3	2,2	3,7	63
06052 THYBORØN	6,3	6,5	7,1	6,9	4,1	2,3	1,4	2,1	1,9	4,5	2,7	4,1	50
06060 FSN KARUP	12,0	10,1	10,1	9,3	8,4	8,1	7,5	9,2	8,3	10,6	8,4	10,1	112
06070 FSN TIRSTRUP	8,6	8,1	7,9	7,0	8,1	8,5	7,9	9,9	9,5	10,3	7,1	7,2	100
06071 FORNÆS FYR	6,9	7,5	7,0	5,4	3,3	1,5	1,3	2,3	2,8	4,0	3,6	4,5	50
06089 SÆDENSTRAND FYR	9,3	7,3	8,0	7,2	3,5	1,6	1,8	2,2	2,9	5,6	5,1	7,1	62
06110 FSN SKRYDSTRUP	12,6	10,9	10,1	9,3	8,0	8,6	8,2	10,4	10,5	11,7	9,8	11,4	122
06119 KEGNÆS FYR	9,0	8,3	7,3	6,7	3,6	1,7	1,8	1,4	2,8	4,8	4,6	6,5	59
06120 ODENSE LUFTHAVN	9,0	7,8	6,7	5,5	5,1	5,6	5,7	7,6	7,2	9,3	6,4	6,6	83
06139 KELDSNOR FYR	9,0	8,4	9,1	6,5	3,6	1,1	1,3	1,4	1,9	4,6	3,5	5,8	56
06151 OMØ FYR	8,3	7,4	6,9	5,7	2,6	1,1	1,0	1,3	1,9	4,2	3,2	5,1	49
06159 RØSNÆS FYR	8,4	7,9	7,5	5,5	3,4	1,5	0,9	1,5	2,2	3,9	3,5	5,2	51
06160 FSN VÆRLØSE	9,7	8,5	7,7	7,5	8,4	10,3	9,3	11,4	10,8	11,0	8,0	8,6	111
06180 KØBENHAVNS LUFTHAVN	8,2	7,6	7,0	5,9	5,3	3,9	3,4	5,7	6,3	7,4	5,0	6,3	72
06190 BORNHOLMS LUFTHAVN	4,1	5,6	7,2	6,2	4,8	2,7	1,9	1,7	3,4	4,9	2,0	2,5	47
06191 CHRISTIANSØ FYR	5,4	6,8	9,3	9,0	7,3	3,9	2,5	2,1	2,9	4,9	2,7	3,5	60
06193 HAMMER ODDE FYR	4,1	5,8	7,1	7,7	5,9	3,1	1,7	1,5	2,2	3,9	2,2	2,6	48
20060 HJØRRING VANDVÆRK	7,3	7,5	6,2	4,8	2,8	2,0	1,6	2,5	3,6	6,6	4,9	6,0	56
21100 VESTERVIG	4,5	4,6	4,5	3,9	1,6	0,5	0,3	0,9	1,6	3,5	2,2	3,2	31
21440 TANGE	5,3	4,1	3,4	2,6	1,4	0,5	0,8	3,0	4,4	5,8	3,9	3,8	39
23310 BRAKKER S	11,1	9,7	9,2	5,5	2,7	1,9	2,1	3,7	5,9	8,8	7,9	9,3	78
25140 NORDBY	7,1	5,7	5,3	4,3	1,4	0,5	0,5	0,9	1,7	3,9	4,2	4,9	40
27080 TRANEBJERG	6,1	4,9	4,9	2,8	1,2	0,4	0,3	0,4	1,4	3,3	2,9	3,8	32
28490 SKJOLDNÆS FYR	7,2	6,7	6,2	5,0	2,1	0,9	0,6	0,6	1,1	3,5	2,4	4,8	41
29020 KOLLEKOLLE	12,3	10,3	7,8	5,8	2,8	1,9	2,0	4,1	6,4	9,7	9,0	9,2	81
30110 SPODSBJERG FYR	9,6	7,5	6,9	4,9	2,5	0,5	0,7	1,0	2,8	5,4	5,3	6,7	54

Table 8.3.2. Number of days with fog (visibility < 1km). Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06104 BILLUND LUFTHAVN, 1970-97	11,3	9,5	10,4	8,6	7,8	8,6	9,4	12,1	10,4	11,4	9,5	10,4	119
06170 ROSKILDE LUFTHAVN, 1974-97	10,8	8,9	8,3	6,3	5,5	6,1	6,2	8,0	8,5	9,5	8,0	9,4	95
22230 ØDUM, 1961-86	6,8	6,5	5,0	2,5	0,9	0,2	0,5	1,5	2,7	5,3	4,8	5,3	42
24485 DØVLING, 1975-97	5,5	5,2	3,9	2,3	0,7	0,4	0,7	1,5	2,5	4,4	4,2	5,0	36
28590 RUDKØBING, 1971-90	5,6	5,6	4,7	2,0	0,6	0,1	0,1	0,2	0,8	2,0	1,9	2,8	26
30170 LILLE DYREHAVEGÅRD, 1961-86	7,8	6,9	5,1	2,6	0,8	0,2	0	0,8	1,8	4,6	4,1	6,0	41
31095 VIVEDE OVERDREV, 1973-91	7,7	6,2	6,8	3,3	1,4	0,6	0,8	1,2	3,1	6,2	5,3	5,7	48
31290 NÆSGÅRD, 1971-90	6,3	5,8	5,9	4,0	1,9	1,4	0,5	0,9	2,5	5,0	4,6	4,6	43
32156 ØSTERLARS SV, 1985-97	8,2	6,5	8,3	5,5	3,5	0,9	0,9	2,0	1,2	4,7	5,2	5,5	52

8.4 Number of days with thunder



Map 8.4. Stations with number of days with thunder normals. See station catalogue 8.4.

Thunderstorms are possible all year round but are most frequent by far in the summer months. The southern part of Denmark, particularly south Jutland, experiences the greatest number of days with thunder. Of the 27 stations listed in the 1961-1990 table, the station at Skrydstrup Airbase (station 06110) in the south of Jutland had the largest annual normal: 20.9 days of thunder per year.

Station number	Element number	Station name	Lat. (degrees)	Lat. (minutes)	N_S	Long. (degrees)	Long. (minutes)	E_W	Elevation (m.a.s.)	FIRST year	LAST year
06030	703	FSN ÅLBORG	57	6	N	9	51	E	3	1961	1990
06041	703	SKAGEN FYR	57	44	N	10	38	E	3	1961	1990
06052	703	THYBORØN	56	42	N	8	13	E	2	1961	1990
06060	703	FSN KARUP	56	18	N	9	7	E	52	1961	1990
06070	703	FSN TIRSTRUP	56	18	N	10	37	E	23	1961	1990
06071	703	FORNÆS FYR	56	27	N	10	58	E	8	1961	1990
06089	703	SÆDENSTRAND FYR	55	30	N	8	24	E	11	1961	1990
06104	703	BILLUND LUFTHAVN	55	44	N	9	10	E	75	1970	1997
06110	703	FSN SKRYDSTRUP	55	14	N	9	16	E	41	1961	1990
06119	703	KEGNÆS FYR	54	51	N	9	59	E	16	1961	1990
06120	703	ODENSE LUFTHAVN	55	29	N	10	20	E	15	1961	1990
06139	703	KELDSNOR FYR	54	44	N	10	43	E	9	1961	1990
06151	703	OMØ FYR	55	10	N	11	8	E	1	1961	1990
06159	703	RØSNÆS FYR	55	45	N	10	52	E	12	1961	1990
06160	703	FSN VÆRLØSE	55	46	N	12	20	E	17	1961	1990
06170	703	ROSKILDE LUFTHAVN	55	35	N	12	8	E	42	1974	1997
06180	703	KØBENHAVNS LUFTHAVN	55	37	N	12	39	E	5	1961	1990
06190	703	BORNHOLMS LUFTHAVN	55	4	N	14	45	E	15	1961	1990
06191	703	CHRISTIANSØ FYR	55	19	N	15	11	E	13	1961	1990
06193	703	HAMMER ODDE FYR	55	18	N	14	47	E	11	1961	1990
20060	703	HJØRRING VANDVÆRK	57	26	N	10	1	E	25	1961	1990
21100	703	VESTERVIG	56	46	N	8	19	E	18	1961	1990
21440	703	TANGE	56	21	N	9	36	E	13	1961	1990
22230	703	ØDUM	56	18	N	10	8	E	61	1961	1986
23310	703	BRAKKER S	55	35	N	9	24	E	58	1961	1990
24485	703	DØVLING	55	55	N	8	56	E	30	1975	1997
25140	703	NORDBY	55	26	N	8	24	E	6	1961	1990
27080	703	TRANEBJERG	55	51	N	10	36	E	11	1961	1990
28490	703	SKJOLDNÆS FYR	54	58	N	10	12	E	15	1961	1990
28590	703	RUDKØBING	54	57	N	10	43	E	10	1971	1990
29020	703	KOLLEKOLLE	55	52	N	11	36	E	30	1961	1990
30110	703	SPODSBJERG FYR	55	59	N	11	51	E	34	1961	1990
30170	703	LILLE DYREHAVEGÅRD	55	56	N	12	18	E	36	1961	1986
31095	703	VIVEDE OVERDREV	55	16	N	12	11	E	20	1973	1991
31290	703	NÆSGÅRD	54	52	N	12	7	E	15	1971	1990
32156	703	ØSTERLARS SV	55	9	N	14	56	E	113	1985	1997

Station catalogue 8.4. Element number 703: Number of days with thunder.

Table 8.4.1. Number of days with thunder. Climatological standard normals, 1961-1990.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06030 FSN ÅLBORG	0,2	0,1	0,2	0,3	1,9	2,4	3,1	2,8	1,6	0,5	0,3	0,2	14
06041 SKAGEN FYR	0	0,0	0	0,1	0,7	1,3	1,4	2,0	1,2	0,3	0,1	0,1	7,2
06052 THYBORØN	0,1	0,1	0,1	0,2	0,6	1,0	1,1	1,4	0,8	0,8	0,4	0,2	6,7
06060 FSN KARUP	0,3	0,1	0,1	0,4	2,1	3,2	3,4	2,9	1,5	1,1	0,6	0,2	16
06070 FSN TIRSTRUP	0,1	0,0	0,1	0,4	2,0	2,4	3,2	2,7	1,5	0,5	0,2	0,1	13
06071 FORNÆS FYR	0	0	0	0,2	1,4	1,7	2,3	1,7	1,3	0,3	0,1	0	9,0
06089 SÆDENSTRAND FYR	0,3	0,2	0,2	0,3	1,2	2,1	2,2	3,0	2,4	1,8	1,3	0,6	16
06110 FSN SKRYDSTRUP	0,5	0,4	0,2	0,8	2,1	3,4	3,8	3,9	2,8	1,5	1,1	0,5	21
06119 KEGNÆS FYR	0,1	0	0,1	0,5	1,7	2,0	3,0	2,6	1,5	0,3	0,2	0,1	12
06120 ODENSE LUFTHAVN	0,3	0	0	0,2	1,6	2,7	2,9	2,5	1,2	0,4	0,2	0,2	12
06139 KELDSNOR FYR	0,0	0,1	0,0	0,3	1,4	1,7	2,4	2,4	1,5	0,2	0,1	0,0	10
06151 OMØ FYR	0,1	0	0,1	0,4	1,5	1,7	2,2	1,6	1,2	0,4	0,1	0,0	9,4
06159 RØSNÆS FYR	0,1	0,0	0,2	0,2	1,5	2,0	2,2	2,3	1,1	0,3	0,2	0,1	10
06160 FSN VÆRLØSE	0,3	0	0,2	0,3	1,8	2,5	3,0	2,8	1,4	0,5	0,1	0,1	13
06180 KØBENHAVNS LUFTHAVN	0,2	0,1	0,3	0,5	1,8	2,6	3,3	3,0	1,7	0,6	0,3	0,1	15
06190 BORNHOLMS LUFTHAVN	0,1	0,1	0,0	0,2	0,9	1,4	1,7	2,0	1,2	0,6	0,1	0,0	8,4
06191 CHRISTIANSØ FYR	0	0	0,0	0,2	0,7	1,0	1,3	1,3	0,7	0,4	0,2	0,1	5,8
06193 HAMMER ODDE FYR	0	0,1	0,1	0,2	1,2	1,6	2,4	2,6	1,7	0,7	0,3	0,0	11
20060 HJØRRING VANDVÆRK	0,1	0	0,1	0,0	1,1	1,9	2,4	2,3	1,5	0,6	0,3	0,1	10
21100 VESTERVIG	0,2	0,1	0,1	0,3	0,9	1,5	1,8	2,0	1,5	1,8	0,8	0,5	11
21440 TANGE	0,1	0	0,1	0,3	1,7	2,2	2,2	2,0	1,2	0,2	0,2	0,0	10
23310 BRAKKER S	0,2	0,1	0,1	0,6	1,6	2,9	2,8	2,8	1,6	1,1	0,7	0,3	15
25140 NORDBY	0,4	0,3	0,2	0,2	1,3	2,3	2,1	2,9	2,6	1,9	1,3	0,5	16
27080 TRANEBJERG	0,1	0,0	0,0	0,2	1,3	1,7	1,8	1,5	0,9	0,3	0,1	0	8,0
28490 SKJOLDNÆS FYR	0,1	0	0,0	0,2	1,0	1,5	1,9	2,1	1,1	0,1	0,1	0,1	8,2
29020 KOLLEKOLLE	0,1	0	0,0	0,3	1,1	1,3	1,9	2,1	1,0	0,3	0,1	0,1	8,2
30110 SPODSBJERG FYR	0	0	0,0	0,2	1,1	1,7	2,1	1,9	1,2	0,1	0,1	0	8,4

Table 8.4.2. Number of days with thunder. Provisional normal averages.

STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
06104 BILLUND LUFTHAVN, 1970-97	0,3	0,1	0,1	0,4	1,4	2,4	2,9	3,3	1,9	1,1	0,9	0,4	15
06170 ROSKILDE LUFTHAVN, 1974-97	0,3	0,1	0,0	0,4	1,5	2,3	2,9	2,5	1,6	0,4	0,2	0,0	12
22230 ØDUM, 1961-86	0,2	0	0	0,1	1,3	1,6	2,2	1,8	0,7	0,2	0	0,1	8,2
24485 DØVLING, 1975-97	0,5	0,2	0	0,2	1,2	2,3	2,3	2,4	1,2	0,7	0,5	0,2	12
28590 RUDKØBING, 1971-90	0,3	0	0,1	0,2	1,6	2,1	3,2	2,5	1,5	0,5	0,3	0,2	12
30170 LILLE DYREHAVEGÅRD, 1961-86	0,0	0,0	0,1	0,3	2,2	3,8	3,3	4,3	1,8	0,5	0,2	0,0	17
31095 VIVEDE OVERDREV, 1973-91	0,1	0	0,1	0,2	1,0	1,7	2,5	2,3	1,3	0,5	0,3	0	10
31290 NÆSGÅRD, 1971-90	0	0	0,1	0,3	1,7	1,8	2,6	2,1	0,9	0,4	0,1	0,1	10
32156 ØSTERLARS SV, 1985-97	0,2	0,2	0,5	0,2	1,4	1,5	2,6	2,6	1,7	0,6	0,2	0,1	12


Photo Robert Hinnenskov.



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9. References

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Appendix



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Appendix 1. Climate elements

The table below lists the climate elements described in this report.

The element no. is the number by which the climate element is identified in the normal and monthly datafiles on the CD-ROM included.

The units in the table are the units used in the monthly data files on the CD-ROM included. The units of the normals in the normal.dat data file are all 0.1.

The method is the method used on the daily values to obtain the monthly values.

Climate element description

Element no.	Description	Unit	Method
101	Mean temperature	0.1 °C	Mean
111	Average maximum temperature + date	0.1 °C	Mean
112	Absolute maximum temperature + date	0.1 °C	Max
114	Number of ice days (Tmax < 0 °C)	days	Sum
115	Number of summer days (Tmax > 25 °C)	days	Sum
121	Average minimum temperature	0.1 °C	Mean
122	Absolute minimum temperature	0.1 °C	Min
124	Number of cold days (Tmin < -10 °C)	days	Sum
125	Number of days with frost (Tmin < 0 °C)	days	Sum
126	Number of tropical nights (Tmin > 20 °C)	days	Sum
147	Heating degree days (Sum of 17°C - Tday)	0.1 K	Sum
201	Mean relative humidity	%	Mean
240	Mean absolute humidity	0.1 g/m³	Mean
256	Mean relative humidity at 06:00 hours UTC	%	Mean
257	Mean relative humidity at 07:00 hours UTC	%	Mean
263	Mean relative humidity at 13:00 hours UTC	%	Mean
265	Mean relative humidity at 15:00 hours UTC	%	Mean
401	Mean pressure	0.1 hPa	Mean
410	Maximum pressure + date	0.1 hPa	Max
420	Minimum pressure + date	0.1 hPa	Min
607	Number of days with snowfall (R > = 0.1 mm)	days	Sum
701	Number of days with snow cover (> 50 % covered)	days	Sum
702	Number of days with fog (visibility < 1 km)	days	Sum
703	Number of days with thunder	days	Sum
801	Mean cloud cover	%	Mean
802	Number of clear days (N < 20 %)	days	Sum
803	Number of cloudy days (N > 80 %)	days	Sum



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Appendix 2. Contents of CD-ROM

The CD-ROM contains 25 fixed ASCII format data files named <element number>.dat, two fixed ASCII format files station.dat and normal.dat, and the ASCII text format file readme.txt. Data from the CD-ROM may only be used with proper reference to the accompanying report (Laursen, Ellen Vaarby, Rikke Sjølin Thomsen and John Cappelen, 1999. Observed Air Temperature, Humidity, Pressure, Cloud Cover and Weather in Denmark - with Climatological Standard Normals, 1961-1990. DMI Technical Report No. 99-5).

Station file: station.dat

The station catalogue contained in the file station.dat describes the station no., element no., name, position, elevation and first and last year of the climate element series in this report. Each record in the file contains information about one station/element. The file is sorted by station no. /element no. and has the following layout:

Position	Format	Description
1-8	F8.0	Station no.
9-16	F8.0	Element no.
17-36	A20	Station name
37-38	F2.0	Latitude (degrees)
39-40	F2.0	Latitude (minutes)
41-41	A1	Northern (N) or Southern (S) hemisphere
42-44	F3.0	Longitude (degrees)
45-46	F2.0	Longitude (minutes)
47-47	A1	East (E) or West (W) of Greenwich
48-51	F4.0	Elevation (metres above mean sea level)
52-55	F4.0	First year in the data series
56-59	F4.0	Last year in the data series

Normal files: normal.dat

Normal values for the standard normal period 1961-1990 and other periods are contained in the file normal.dat. The file contains normal values for all stations described in the station catalogue. The file is sorted by station no. /element no.

Each record in the file contains the mean monthly and annual values - all in units of 0.1 - from one station/element no. in the following format:

Position	Format	Description
1-6	F6.0	Station no.
7-12	F6.0	Element no.
13-18	F6.0	First year in normal period
19-24	F6.0	Last year in normal period
25-30	F6.0	January normal value
31-36	F6.0	February normal value
37-42	F6.0	March normal value
43-48	F6.0	April normal value
49-54	F6.0	May normal value
55-60	F6.0	June normal value
61-66	F6.0	July normal value
67-72	F6.0	August normal value
73-78	F6.0	September normal value
79-84	F6.0	October normal value
85-90	F6.0	November normal value
91-96	F6.0	December normal value
97-102	F6.0	Annual normal value

Monthly files: <element number>.dat

Time series for all the stations presented in this report are contained in the files <element number>.dat. The files are sorted by station no. /element no., year and month (month 13 gives the annual total). Each record in the files contains one monthly or annual value for one station/element no. in the following format. The units of the values can be seen in the table in Appendix 1. Please also note that the “Date” variable only exists in the files concerned with extreme values (format is [month][day] i.e. 825 for 25 August):

Position	Format	Description
1-6	F6.0	Station no.
7-12	F6.0	Element no.
13-18	F6.0	Year
19-24	F6.0	Month (1-12 and 13 for annual)
25-30	F6.0	Value
31-36	F6.0	Date.



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