

DATA SET DESCRIPTION

Recent monthly cooling degree hours for Germany, quality control not completed yet

Version recent

Cite data set as: DWD Climate Data Center (CDC): Recent monthly cooling degree hours for Germany, quality control not completed yet, version v19.3, last accessed: <date>.

INTENT OF THE DATASET

Only hours with positive temperature differences between the air temperature and the reference temperature are counted. Only stations with the complete set of hourly air temperature data are taken into account. The reference temperatures 13, 16, and 18 degree Celsius are considered (separated directories). The used data to calculate the cooling degree hours in the "recent" directory have not passed the complete quality control.

POINT OF CONTACT

Deutscher Wetterdienst
CDC - Vertrieb Klima und Umwelt
Frankfurter Straße 135
63067 Offenbach
Tel.: + 49 (0) 69 8062-4400
Fax.: + 49 (0) 69 8062-4499
Mail: klima.vertrieb@dwd.de

DATA DESCRIPTION

Spatial coverage	stations in Germany	
Temporal coverage	2019-01-01 until - last month	
Temporal resolution	monthly	
Format(s)	One file per months, rows correspond to stations.	
Units	The parameters of the degree day list:	
ID	Station ID	
geogr. Breite	latitude	degree
geogr. Laenge	longitude	degree
Station	name of the station	
Monat	Year and month	yyyymm
Anzahl Stunden	number or hours in the month of question	hour

Anzahl Kühlstunden	number of hours with positive temperatur differences between air temperature and reference temperature, cooling hour	hour
Kühlgradstunden	accumulated hourly temperature differences between air temperature and reference temperature	Kelvin * day
Anzahl Kühltag	number of days with at least one cooling hour	day

Uncertainties The stations are established and operated according to WMO guidelines.

DATA ORIGIN

The monthly cooling degree hours are calculated for each month from hourly means of air temperature (degree Celsius). The version 'recent' is based on data which have not yet completed full quality control. This climate data are from the station network of DWD, operationally collected in the central climate data base and archived, see Behrendt et al., 2011, and Kaspar et al., 2013. For details on current measurement and observation procedures see VuB 3 Beobachterhandbuch (DWD, 2014a), VuB 3 Technikerhandbuch (DWD, 2014b) and VuB 2 Wetterschlüsselhandbuch (DWD, 2013).

VALIDATION AND UNCERTAINTY ESTIMATE

The quality of the monthly degree hours depends on the quality of hourly values of air temperature.

CONSIDERATIONS FOR APPLICATIONS

Monthly cooling degree hours are provided for reference temperatures of 13, 16 and 18 degree Celsius.

ADDITIONAL INFORMATION

For extending the time series with historical data, see subdirectories ../historical/.

REFERENCES

Behrendt, J., et al.: Beschreibung der Datenbasis des NKDZ. Version 3.5, Offenbach, 15.02.2011.

DWD Vorschriften und Betriebsunterlagen Nr. 2 (VuB 2), Wetterschlüsselhandbuch Band D, Nov 2013.

DWD Vorschriften und Betriebsunterlagen Nr. 3 (VuB 3), Beobachterhandbuch (BHB) für Wettermeldestellen des synoptisch-klimatologischen Mess- und Beobachtungsnetzes, März 2014a .

DWD Vorschriften und Betriebsunterlagen Nr. 3 (VuB 3), Technikerhandbuch (THB) für Wettermeldestellen des synoptisch-klimatologischen Mess- und Beobachtungsnetzes, März 2014b.

Kaspar, F., et al.: Monitoring of climate change in Germany – data, products and services of Germany`s National Climate Data Centre. Adv. Sci. Res., 10, doi:10.5194/asr-10-99-2013, 99–106, 2013.

Spengler, R.: The new Quality Control- and Monitoring System of the Deutscher Wetterdienst. Proceedings of the WMO Technical Conference on Meteorological and Environmental Instruments and Methods of Observation, Bratislava, 2002.

VDI 3807, Part 1 (2013): Characteristic consumption values for buildings, Fundamentals. Verein Deutscher Ingenieure. Beuth-Verlag. Berlin

COPYRIGHT

The instructions in https://opendata.dwd.de/climate_environment/CDC/Terms_of_use.pdf should be followed. The DWD website provides comprehensive copyright information.

REVISION HISTORY

This version is a result of a research project. It is possible that errors in the metadata or the data itself are detected and corrected. That will be documented in the file Change_log_REA_OD.txt, however, no versions of the COSMO-REA6 dataset will be saved.

This document is maintained by the Climate Data Center (CDC) of DWD, last edited on \$LAST_MODIFIED;