Met Office

DATASHEET 2: PARAMETERS AND LOCATIONS

Postcode Sector Data

Postcode Sector Data

A seamless set of past weather data and accurate forecasts for your chosen postcode sector.

We've developed Postcode Sector Data to help you excel in identifying weather impacts on your business and use this actionable intelligence to plan effectively and enhance your results.

What is the Postcode Sector data set?

- Combines model-generated past weather data from 2011 up until now and hourly forecasts for up to 14 days.
- It's available for 9000+ postcode sectors (e.g. EX1 1) within the UK and Northern Ireland and larger cities in the Republic of Ireland.
- Provides information for over 80 parameters such as e.g. temperature, wind, rain, snow, solar, cloud and more.

Postcode Sector Data weather parameters

Parameter	Unit	Hourly [1]	Sub-daily [1]	Six-hourly [1]	Daily
Temperatures etc					
Temperature	°C	Hourly to T+360	Three-hourly to T+360	-	-
'Feels Like' Temperature	°C	Hourly to T+360	Three-hourly to T+360	-	Max / Min to Day 15
Max/Min Temperature[8]	°C	Hourly to T+48	Three-hourly to T+168	Six-hourly to T+360	Max / Min[2] to Day 15
Feels Like T Range	°C	Hourly to T+360	-	-	-
Surface Temperature	°C	Hourly to T+360	-	-	-
Road/Runway Surface Temp	°C	20min to T+168	-	-	-
Rail Surface Temperature	°C	20min to T+168	-	-	-
Temperature Range	°C	-	-	-	Max / Min Upper / Lower Bounds to Day 15
Feels Like T Range	°C	-	-	-	Max / Min Upper / Lower Bounds to Day 15
Dry Bulb Freezing Level	m AMSL	Hourly to T+360	-	-	-
Wet Bulb Freezing Level	m AMSL	Hourly to T+360	-	-	-
Relative Humidity	%	Hourly to T+360	Three-hourly to T+360	-	Local Midday / Midnight to Day 15
Mean Sea Level Pressure	Pa	Hourly to T+360	Three-hourly to T+360	-	Local Midday / Midnight to Day 15
Wind					
Wind Speed	m/s	Hourly to T+360	Three-hourly to T+360	-	Local Midday / Midnight to Day 15
Wind Direction	deg	Hourly to T+360	Three-hourly to T+360	-	Local Midday / Midnight to Day 15
Wind Gust	m/s	Hourly to T+360	Three-hourly to T+360	-	Local Midday / Midnight to Day 15
Max Wind Gust[8]	m/s	Hourly to T+48	Three-hourly to T+168	Six-hourly to T+360	-
Precipitation					
Precipitation Amount[8]	mm	Hourly to T+48	Three-hourly to T+168	Six-hourly to T+360	-
Precipitation Rate	mm/hr	Hourly to T+360	-	-	-
Snow					
Snow Amount[8][9]	mm (rain equiv)	Hourly to T+48	Three-hourly to T+168	Six-hourly to T+360	-
Snow Depth[10]	mm (water equiv)	Hourly to T+360	-	-	-

Parameter	Unit	Hourly [1]	Sub-daily [1]	Six-hourly [1]	Daily
Solar					
UV Index	0 to 13[5]	Hourly to T+360	Three-hourly to T+360	-	Max to Day 15
Sunshine Duration[8]	s	Hourly to T+48	Three-hourly to T+360	Six-hourly to T+360	Daily to Day 15
Instantaneous Direct Downward SW radiation	W/m^2	Hourly to T+360[6]	-	-	-
Instantaneous Direct Downward SW radiation	kJ/m^2	Hourly to T+360[6]	-	-	-
Instantaneous Diffuse Downward SW radiation	W/m^2	Hourly to T+360[6]	-	-	-
Integrated Diffuse Downward SW radiation	kJ/m^2	Hourly to T+360[6]	-	-	-
Instantaneous SW is the power (per unit area); integrated SW is the energy (per unit area) over the previous hour, commonly expressed as kWh (1kWh = 3600kJ)					
Cloud					
Cloud Amount < 200feet	oktas	Hourly to T+360	-	-	-
Low cloud amount	oktas	Hourly to T+360	-	-	-
Medium cloud amount	oktas	Hourly to T+360	-	-	-
High cloud amount	oktas	Hourly to T+360	-	-	-
Total cloud amount	oktas	Hourly to T+360	-	-	-
Visibility	m	Hourly to T+360	Three-hourly to T+360	-	Local Midday / Midnight to Day 15
Lightning risk	%	Hourly to T+360	-	-	-
Probabilistics					
Probability of Precipitation	%	Hourly to T+360	Three-hourly to T+360	-	Daytime / Nighttime to Day 15
Probability of Snow	%	-	Three-hourly to T+360	-	Daytime / Nighttime to Day 15
Probability of Heavy Snow	%	-	Three-hourly to T+360	-	Daytime / Nighttime to Day 15
Probability of Rain	%	-	Three-hourly to T+360	-	Daytime / Nighttime to Day 15
Probability of Heavy Rain	%	-	Three-hourly to T+360	-	Daytime / Nighttime to Day 15
Probability of Hail	%	-	Three-hourly to T+360	-	Daytime / Nighttime to Day 15
Probability of Lightning	%	-	Three-hourly to T+360	-	Daytime / Nighttime to Day 15
Probability of Mist	%	-	Three-hourly to T+360	-	Daytime / Nighttime to Day 15
Probability of Fog	%	-	Three-hourly to T+360	-	Daytime / Nighttime to Day 15
Probability of Sun / Clear Skies	%	-	Three-hourly to T+360	-	Daytime / Nighttime to Day 15
Probability of LVP[11]	%	-	Three-hourly to T+360	-	Daytime / Nighttime to Day 15
Other					
Weather Code (see below)	0 to 30	Hourly to T+360[3]	Three-hourly to T+360[4]	-	Daytime / Nighttime[2][4] to Day 15
Day / Night Indicator	0/1	Hourly to T+360	Three-hourly to T+360	-	-

(1) End of forecast range is approximate.
(2) Daytime defined as forecast times that fall between local dawn and dusk. Vice versa for night-time. This rule is applied for (day) max/(night) min temps and day/night symbols.
(3) Each hourly symbol is nominally the weather at each time, but considers both instantaneous (e.g. cloud amount) and period (e.g. max rain rate over the last hour). For Weather Code a code breakdown is available, and you can ask your Met Office Account Manager for this.
(4) Both three-hourly and day/night weather symbols combine the hourly weather symbols that fall within the relevant period. For the three-hourly symbol valid a t=T, this is the hourly symbols valid at T-1, T, T+1. For day symbols this is all the hourly symbols that fall between local dawn and dusk unless in-day in which case only those hourly symbols in the remaining portion of the day are considered. Likewise for night symbols, but obviously dusk to dawn.
(5) Higher values are possible in extreme situations.
(6) Both instantaneous and integrated over previous hour output.
(7) N/A
(8) Over the preceding hour/three/six hours.
(9) This is the falling snow amount in mm of liquid equivalent. Doesn't reflect snow lying on the ground. Falling snow may not settle at all and may be accompanied by rain, i.e. is sleet.
(10) This is the lying snow amount in mm of liquid equivalent, approximates to snow depth in cm.
(11) LVP - Low Visibility Procedures are operated at visibilities < 1500m and/or 3 Oktas of cloud below 200ft above ground level.

At Height Parameters

The following parameters can be produced at any height of your choice.

Parameter	Unit	Hourly feed
Air density at hub height	kg/m^3	Hourly to T+360
Pressure at hub height	Pa	Hourly to T+360
Temperature at hub height	°C	Hourly to T+360
Wind direction at hub height	deg	Hourly to T+360
Wind speed at hub height	m/s	Hourly to T+360
Wind speed at hub height - Kalman filtered	m/s	Hourly to T+360
Maximum wind (gust) speed at hub height	m/s	Hourly to T+360
Minimum wind speed at hub height	m/s	Hourly to T+360
Relative humidity at hub height	%	Hourly to T+360
Sensible heat flux	W/m^2	Hourly to T+360
Lightning risk	%	Hourly to T+360

Postcode Sector Weather Codes

If you are interested in the 'Weather Code', below are the codes and their corresponding parameters.

Value	Description
NA	Not available
0	Clear night
1	Sunny day
2	Partly cloudy (night)
3	Partly cloudy (day)
4	Not used
5	Mist
6	Fog
7	Cloudy
8	Overcast
9	Light rain shower (night)
10	Light rain shower (day)
11	Drizzle
12	Light rain
13	Heavy rain shower (night)
14	Heavy rain shower (day)
15	Heavy rain

Value	Description
16	Sleet shower (night)
17	Sleet shower (day)
18	Sleet
19	Hail shower (night)
20	Hail shower (day)
21	Hail
22	Light snow shower (night)
23	Light snow shower (day)
24	Light snow
25	Heavy snow shower (night)
26	Heavy snow shower (day)
27	Heavy snow
28	Thunder shower (night)
29	Thunder shower (day)
30	Thunder

Postcode Sector Locations

Postcode Sector Data can be provided from over 9000 postcode sectors. The map below illustrates the density of the locations where Postcode Sector Data can be provided. Shetland Islands and the Channel Islands are available. Each red dot represents a postcode sector.

Met Office
FitzRoy Road, Exeter
Devon, EX1 3PB
United Kingdom

+44 (0)330 135 0000
Contact form
www.metoffice.gov.uk/services
@metofficeB2B
Find us on LinkedIn