

METEO file data description

Class1 and Class2 ICOS Stations

The meteorological data are distributed in two different files:

- METESENS file where values are provided per sensor (ICOSETC_CC-###_METESENS_VP.csv, where CC-### is the official site code and VP is a two digits value that identifies the version of the processing), aggregated at 30 minutes resolution.
- METEO file where values are aggregated among sensors measuring the same variable at the same height or depth and for this reason representative of the ecosystem (ICOSETC_CC-###_METEO_VP.csv, where CC-### is the official site code and VP is a two digits value that identifies the version of the processing), aggregated at 30 minutes resolution.

For both the files data are provided without any gapfilling (see the FLUXNET file for these data). The data are a continuous timeseries with resolution of 30 minutes.

METESENS file

The variable codes are composed by a variable name (see the Variables_description.xlsx file included in the Level2 data package) and three numeric indexes or positional qualifiers, used to indicate relative positions of observations at the site (e.g. different points in space, along a vertical profile) or measured at the same position using two or more sensors (replicates). Since each variable is the aggregation of an higher time resolution file (1 to 60 seconds) it is also reported for each halfhour the standard error (identified by the suffix _SE) and the number of single measurements used in the calculate the halfhourly value (identified by the suffix _N).

It is possible to see the actual sensor position, the model, the serial number and the management/disturbances of the sensor using the VARINFO_METESENS and the INST BIF files that reports all the metadata including the variable code of the measurements generated by the sensor.

METEO file

The variable codes are composed by a variable name (see the Variables_description.xlsx file included in the Level2 data package) and in case of vertical profiles a numeric index used to indicate the relative height/depth. Since each variable can be the aggregation of two or more sensors (average or sum) in these cases it is also reported for each halfhour the standard deviation (identified by the suffix _SD) and the number of sensors used in the calculate the spatially aggregated value (identified by the suffix _N).

It is possible to see which sensors have been used to calculate the aggregated variable (and then their position, the model etc.) using the VARINFO_METEO BIF file and in particular the VAR_AGG_MEMBERS variable that lists the variable that have been aggregated (same variables that can be found in the METESENS file).

For any question related to the data processing and structure please contact info@icos-etc.eu