

Dataset Information

This system is the same as system 7333. This dataset has been rolled up from the original 10 sec resolution to 5 minute. All other site metadata is the same and is reproduced intis directory too. The layout and structure of the files has changed from the 10 sec version due to the now reduced data volume.

Within each file, the headers are labeled with a sensor tag. Each sensor tag typically has a text string:

SITE_ID-BLOCK_NUM-INVERTER_ID-INVERTER_NUM-SIGNAL_TYPE-UNITS__DB-ID

SITE_ID = "sos"

BLOCK_NUM = integer number with leading 0s (e.g. 04)

INVERTER_ID = integer number with leading 0s (e.g. 039)

INVERTER_NUM = string (e.g. inv1)

SIGNAL_TYPE = string (e.g. power, phzbc, phzca, etc.)

UNITS = string (e.g. kW, v, a, etc.)

DB_ID = integer (e.g. 1761176) used in original database archive for data as a primary key for the hardware

The sensor tags will vary by the hardware elements and can include inverters, meters, weather stations, and trackers.

Each data filename is labeled based on the general data type and the timestamp of the range of the data.

7333_5_min_ac_20210101_20211231.csv

In this example this would include all electrical AC sensor data channels for dates 2021-01-01 through 2021-12-31
Within the archive you will find:

ac : All electrical AC sensor data channels. Inverter (inv) AC phase signals, AC power

dc : All electrical DC sensor data channels. Inverter (inv) and Combiner box (cmb) DC voltage, current, and power. Note that combiner boxes only have current.

environment : All sensor channels for temperatures and weather station. There are multiple weather stations and the sensor channels are numbered accordingly. Some of these can be from instrumentation cabinets for combiner boxes. The channels can include: Wind speed (m/s), Wind direction (degrees), Ambient temperature (C), Module temperatures (C), Cabinet temperatures (C)

irradiance : Solar irradiance channels from several weather stations sources. These can include: POA, GHI, and DNI. All units are W/m^2

tracker : All sensor channels reported from the trackers. These include only the position angle in degrees.