Shri Vile Parle Kelavani Mandal's
DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING
(Autonomous College Affiliated to the University of Mumbai)
NAAC Accredited with "A" Grade (CGPA : 3.18)

Department of Computer Science and Engineering (Data Science)

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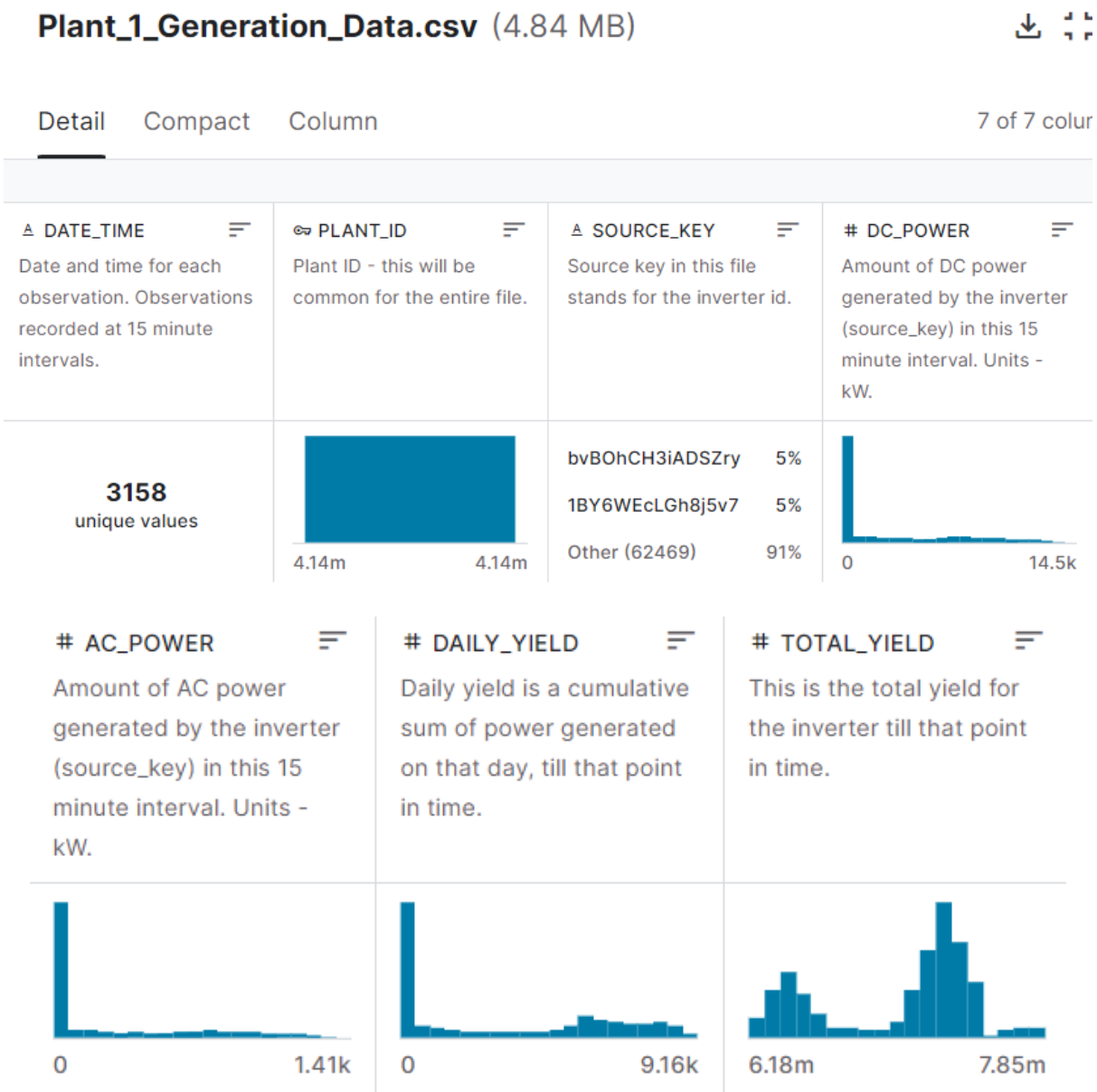
Solar Power Generation Forecasting

Data Description:

This data has been gathered at two solar power plants in India over a 34 day period. It has two pairs of files - each pair has one power generation dataset and one sensor readings dataset. The power generation datasets are gathered at the inverter level - each inverter has multiple lines of solar panels attached to it. The sensor data is gathered at a plant level - single array of sensors optimally placed at the plant.



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Plant_1_Weather_Sensor_Data.csv (287.85 kB)

Detail Compact Column 6 of 6 colun

About this file

Add Sugge

Weather sensor data gathered for one solar plant every 15 minutes over a 34 days period.

DATE_TIME	PLANT_ID	SOURCE_KEY	# AMBIENT_TEMPE...
Date and time for each observation. Observations recorded at 15 minute intervals.	Plant ID - this will be common for the entire file.	Stands for the sensor panel id. This will be common for the entire file because there's only one sensor panel for the plant.	This is the ambient temperature at the plant.
2020-05-15 2020-06-18	4.14m 4.14m	1 unique value	20.4 35.3

# MODULE_TEMPE...	# IRRADIATION
There's a module (solar panel) attached to the sensor panel. This is the temperature reading for that module.	Amount of irradiation for the 15 minute interval.
18.1 65.5	0 1.22

Plant_2_Generation_Data.csv (5.81 MB)

Detail Compact Column 7 of 7 colur

About this file

Add Sugge

Solar power generation data for one plant gathered at 15 minutes intervals over a 34 days period.

DATE_TIME	PLANT_ID	SOURCE_KEY	DC_POWER
Date and time for each observation. Observations recorded at 15 minute intervals.	Plant ID - this will be common for the entire file.	Source key in this file stands for the inverter id.	Amount of DC power generated by the inverter (source_key) in this 15 minute interval. Units - kW.
2020-05-15 2020-06-18	4.14m 4.14m	81aHJ1q11NBPMrL 5% 9kRcWv60rDACzjR 5% Other (61180) 90%	0 1.42k

AC_POWER	DAILY_YIELD	TOTAL_YIELD
Amount of AC power generated by the inverter (source_key) in this 15 minute interval. Units - kW.	Daily yield is a cumulative sum of power generated on that day, till that point in time.	This is the total yield for the inverter till that point in time.
0 1.39k	0 9.87k	0 2.25b

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Plant_2_Weather_Sensor_Data.csv (301.44 kB)

Detail Compact Column 6 of 6 colur

About this file

Add Sugge

Weather sensor data gathered for one solar plant every 15 minutes over a 34 days period.

DATE_TIME
Date and time for each observation. Observations recorded at 15 minute intervals.

2020-05-15 2020-06-18

PLANT_ID
Plant ID - this will be common for the entire file.

4.14m 4.14m

SOURCE_KEY
Stands for the sensor panel id. This will be common for the entire file because there's only one sensor panel for the plant.

1
unique value

 # AMBIENT_TEMPE...
This is the ambient temperature at the plant.

20.9 39.2

 # MODULE_TEMPE...
There's a module (solar panel) attached to the sensor panel. This is the temperature reading for that module.

20.3 66.6

 # IRRADIATION
Amount of irradiation for the 15 minute interval.

0 1.1