[Energy Consumption Data Report](#4lq0btco49qt)

Energy Consumption Data Report

* [Overview](#e5rff5k6a3ua)
* [Variables](#6p5bmlxh4kak)
* [Interactions](#l3nzfzujc3eu)
* [Missing values](#n5yys1jsr36j)
* [Sample](#kng9m8cjqlco)

Overview

Brought to you by [YData](https://ydata.ai/?utm_source=opensource&utm_medium=ydataprofiling&utm_campaign=report)

* Overview
* Alerts 4
* Reproduction

Dataset statistics

| Number of variables | 4 |
| --- | --- |
| Number of observations | 304 |
| Missing cells | 0 |
| Missing cells (%) | 0.0% |
| Duplicate rows | 0 |
| Duplicate rows (%) | 0.0% |
| Total size in memory | 69.8 KiB |
| Average record size in memory | 235.0 B |

Variable types

| DateTime | 3 |
| --- | --- |
| Numeric | 1 |

Alerts

| [End time UTC](#og0vvcobg4ew) has unique values | Unique |
| --- | --- |
| [Start time UTC+03:00](#fj0bn78kqrgg) has unique values | Unique |
| [End time UTC+03:00](#lqnptpizz689) has unique values | Unique |
| [Average Load In Nanjing](#qesxtvt452mq) has unique values | Unique |

Reproduction

| Analysis started | 2025-05-16 16:06:56.999173 |
| --- | --- |
| Analysis finished | 2025-05-16 16:06:57.578674 |
| Duration | 0.58 seconds |
| Software version | [ydata-profiling vv4.16.1](https://github.com/ydataai/ydata-profiling) |
| Download configuration | config.json |

Variables

Select Columns End time UTC Start time UTC+03:00 End time UTC+03:00 Average Load In Nanjing

[End time UTC](#og0vvcobg4ew)

Date

Unique

| Distinct | 304 |
| --- | --- |
| Distinct (%) | 100.0% |
| Missing | 0 |
| Missing (%) | 0.0% |
| Memory size | 4.8 KiB |

| Minimum | 2002-11-02 00:00:00 |
| --- | --- |
| Maximum | 2003-09-01 00:00:00 |
| Invalid dates | 0 |
| Invalid dates (%) | 0.0% |

2025-05-16T16:06:57.718685image/svg+xmlMatplotlib v3.10.0, https://matplotlib.org/

More details

* Histogram

2025-05-16T16:06:57.965576image/svg+xmlMatplotlib v3.10.0, https://matplotlib.org/

**Histogram with fixed size bins** (bins=50)

[Start time UTC+03:00](#fj0bn78kqrgg)

Date

Unique

| Distinct | 304 |
| --- | --- |
| Distinct (%) | 100.0% |
| Missing | 0 |
| Missing (%) | 0.0% |
| Memory size | 4.8 KiB |

| Minimum | 2002-11-01 03:00:00 |
| --- | --- |
| Maximum | 2003-08-31 03:00:00 |
| Invalid dates | 0 |
| Invalid dates (%) | 0.0% |

2025-05-16T16:06:58.181151image/svg+xmlMatplotlib v3.10.0, https://matplotlib.org/

More details

* Histogram

2025-05-16T16:06:58.422355image/svg+xmlMatplotlib v3.10.0, https://matplotlib.org/

**Histogram with fixed size bins** (bins=50)

[End time UTC+03:00](#lqnptpizz689)

Date

Unique

| Distinct | 304 |
| --- | --- |
| Distinct (%) | 100.0% |
| Missing | 0 |
| Missing (%) | 0.0% |
| Memory size | 4.8 KiB |

| Minimum | 2002-11-02 03:00:00 |
| --- | --- |
| Maximum | 2003-09-01 03:00:00 |
| Invalid dates | 0 |
| Invalid dates (%) | 0.0% |

2025-05-16T16:06:58.657536image/svg+xmlMatplotlib v3.10.0, https://matplotlib.org/

More details

* Histogram

2025-05-16T16:06:58.812318image/svg+xmlMatplotlib v3.10.0, https://matplotlib.org/

**Histogram with fixed size bins** (bins=50)

[Average Load In Nanjing](#qesxtvt452mq)

Real number (ℝ)

Unique

| Distinct | 304 |
| --- | --- |
| Distinct (%) | 100.0% |
| Missing | 0 |
| Missing (%) | 0.0% |
| Infinite | 0 |
| Infinite (%) | 0.0% |
| Mean | 1948.8136 |

| Minimum | 1494.852 |
| --- | --- |
| Maximum | 2865.811 |
| Zeros | 0 |
| Zeros (%) | 0.0% |
| Negative | 0 |
| Negative (%) | 0.0% |
| Memory size | 4.8 KiB |

2025-05-16T16:06:58.947747image/svg+xmlMatplotlib v3.10.0, https://matplotlib.org/

More details

* Statistics
* Histogram
* Common values
* Extreme values

Quantile statistics

| Minimum | 1494.852 |
| --- | --- |
| 5-th percentile | 1665.6874 |
| Q1 | 1784.353 |
| median | 1877.9405 |
| Q3 | 2022.6975 |
| 95-th percentile | 2555.4901 |
| Maximum | 2865.811 |
| Range | 1370.959 |
| Interquartile range (IQR) | 238.3445 |

Descriptive statistics

| Standard deviation | 267.3743 |
| --- | --- |
| Coefficient of variation (CV) | 0.1371985 |
| Kurtosis | 2.5616989 |
| Mean | 1948.8136 |
| Median Absolute Deviation (MAD) | 115.251 |
| Skewness | 1.5442572 |
| Sum | 592439.33 |
| Variance | 71489.018 |
| Monotonicity | Not monotonic |

2025-05-16T16:06:59.090735image/svg+xmlMatplotlib v3.10.0, https://matplotlib.org/

**Histogram with fixed size bins** (bins=50)

| Value | Count | Frequency (%) |
| --- | --- | --- |
| 1959.785 | 1 | 0.3% |
| 1886.768 | 1 | 0.3% |
| 1904.007 | 1 | 0.3% |
| 2070.044 | 1 | 0.3% |
| 2236.081 | 1 | 0.3% |
| 2254.021 | 1 | 0.3% |
| 2449.985 | 1 | 0.3% |
| 2744.839 | 1 | 0.3% |
| 2798.147 | 1 | 0.3% |
| 2691.976 | 1 | 0.3% |
| Other values (294) | 294 | 96.7% |

* Minimum 10 values
* Maximum 10 values

| Value | Count | Frequency (%) |
| --- | --- | --- |
| 1494.852 | 1 | 0.3% |
| 1495.771 | 1 | 0.3% |
| 1496.691 | 1 | 0.3% |
| 1497.61 | 1 | 0.3% |
| 1498.529 | 1 | 0.3% |
| 1532.062 | 1 | 0.3% |
| 1576.753 | 1 | 0.3% |
| 1611.536 | 1 | 0.3% |
| 1613.125 | 1 | 0.3% |
| 1626.419 | 1 | 0.3% |

| Value | Count | Frequency (%) |
| --- | --- | --- |
| 2865.811 | 1 | 0.3% |
| 2854.853 | 1 | 0.3% |
| 2843.895 | 1 | 0.3% |
| 2832.937 | 1 | 0.3% |
| 2821.979 | 1 | 0.3% |
| 2814.385 | 1 | 0.3% |
| 2798.147 | 1 | 0.3% |
| 2783.718 | 1 | 0.3% |
| 2744.839 | 1 | 0.3% |
| 2714.786 | 1 | 0.3% |

Interactions

* Average Load In Nanjing
* Average Load In Nanjing

2025-05-16T16:06:57.171180image/svg+xmlMatplotlib v3.10.0, https://matplotlib.org/

Missing values

* Count
* Matrix

2025-05-16T16:06:57.387219image/svg+xmlMatplotlib v3.10.0, https://matplotlib.org/

A simple visualization of nullity by column.

2025-05-16T16:06:57.505327image/svg+xmlMatplotlib v3.10.0, https://matplotlib.org/

Nullity matrix is a data-dense display which lets you quickly visually pick out patterns in data completion.

Sample

* First rows
* Last rows

|  | End time UTC | Start time UTC+03:00 | End time UTC+03:00 | Average Load In Nanjing |
| --- | --- | --- | --- | --- |
| Start time UTC |  |  |  |  |
| 2002-11-01 | 2002/11/02 00:00 | 2002/11/01 03:00 | 2002/11/02 03:00 | 1687.979 |
| 2002-11-02 | 2002/11/03 00:00 | 2002/11/02 03:00 | 2002/11/03 03:00 | 1653.573 |
| 2002-11-03 | 2002/11/04 00:00 | 2002/11/03 03:00 | 2002/11/04 03:00 | 1634.035 |
| 2002-11-04 | 2002/11/05 00:00 | 2002/11/04 03:00 | 2002/11/05 03:00 | 1715.912 |
| 2002-11-05 | 2002/11/06 00:00 | 2002/11/05 03:00 | 2002/11/06 03:00 | 1732.314 |
| 2002-11-06 | 2002/11/07 00:00 | 2002/11/06 03:00 | 2002/11/07 03:00 | 1717.768 |
| 2002-11-07 | 2002/11/08 00:00 | 2002/11/07 03:00 | 2002/11/08 03:00 | 1697.009 |
| 2002-11-08 | 2002/11/09 00:00 | 2002/11/08 03:00 | 2002/11/09 03:00 | 1733.018 |
| 2002-11-09 | 2002/11/10 00:00 | 2002/11/09 03:00 | 2002/11/10 03:00 | 1696.422 |
| 2002-11-10 | 2002/11/11 00:00 | 2002/11/10 03:00 | 2002/11/11 03:00 | 1646.448 |

|  | End time UTC | Start time UTC+03:00 | End time UTC+03:00 | Average Load In Nanjing |
| --- | --- | --- | --- | --- |
| Start time UTC |  |  |  |  |
| 2003-08-22 | 2003/08/23 00:00 | 2003/08/22 03:00 | 2003/08/23 03:00 | 2462.380 |
| 2003-08-23 | 2003/08/24 00:00 | 2003/08/23 03:00 | 2003/08/24 03:00 | 2510.316 |
| 2003-08-24 | 2003/08/25 00:00 | 2003/08/24 03:00 | 2003/08/25 03:00 | 2398.261 |
| 2003-08-25 | 2003/08/26 00:00 | 2003/08/25 03:00 | 2003/08/26 03:00 | 2401.912 |
| 2003-08-26 | 2003/08/27 00:00 | 2003/08/26 03:00 | 2003/08/27 03:00 | 2482.125 |
| 2003-08-27 | 2003/08/28 00:00 | 2003/08/27 03:00 | 2003/08/28 03:00 | 2534.287 |
| 2003-08-28 | 2003/08/29 00:00 | 2003/08/28 03:00 | 2003/08/29 03:00 | 2581.964 |
| 2003-08-29 | 2003/08/30 00:00 | 2003/08/29 03:00 | 2003/08/30 03:00 | 2377.432 |
| 2003-08-30 | 2003/08/31 00:00 | 2003/08/30 03:00 | 2003/08/31 03:00 | 2018.769 |
| 2003-08-31 | 2003/09/01 00:00 | 2003/08/31 03:00 | 2003/09/01 03:00 | 1866.975 |

Report generated by [YData](https://ydata.ai/?utm_source=opensource&utm_medium=pandasprofiling&utm_campaign=report).