

Sample Full HHD

MPAN: 100000sample

Analysis window: 15 Nov 24 – 14 Nov 25 • 365 days

Full file range: 17 Sept 24 – 14 Nov 25

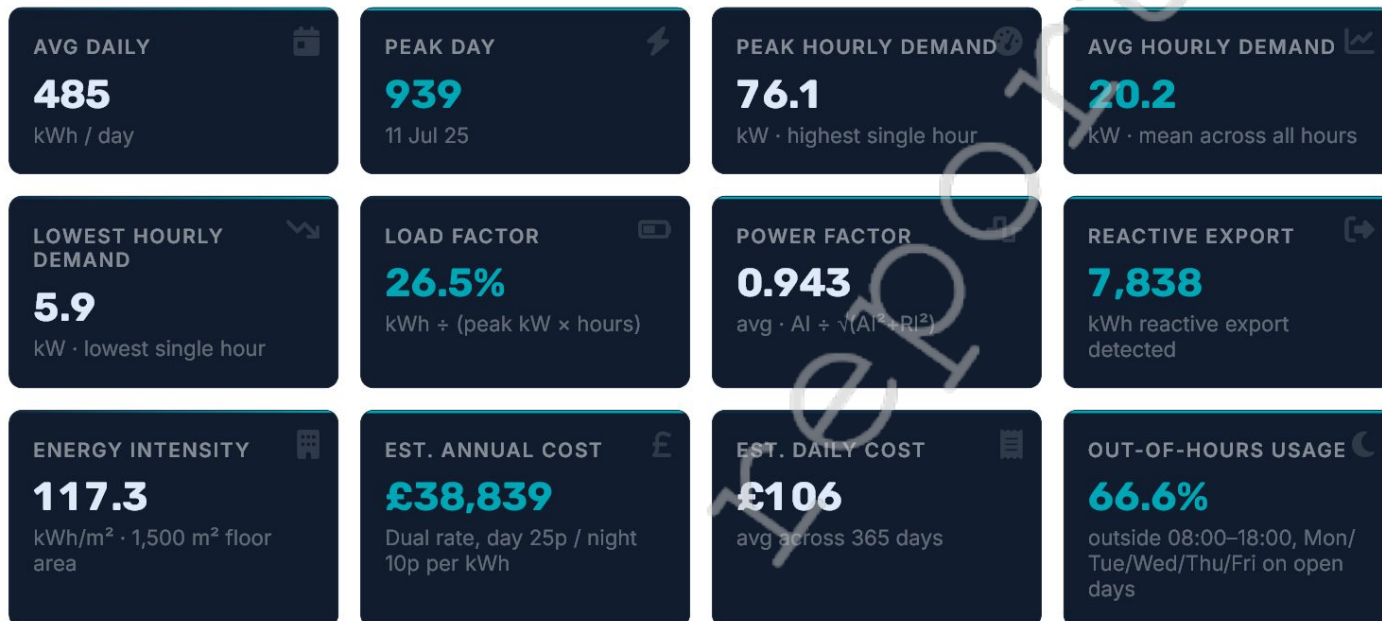


Watt Time & Frequency

TOTAL CONSUMPTION

175,915 kWh

KEY METRICS



• KEY INSIGHTS

- Load factor is 26.5%, demand is highly spiky relative to average, meaning peak charges (kVA/capacity, DUoS red/amber) are being driven by short bursts rather than steady baseload. Sites with this profile typically have the greatest scope for demand flexibility or peak-shaving measures, where operationally feasible.
- Peak hourly demand (76.1 kW) is over 3.8× the average hourly demand (20.2 kW), a wide spread that typically points to a small number of high-demand events dominating capacity requirements.
- Only 2.3% of consumption falls in the DUoS Red band, suggesting limited exposure to peak network charging periods.
- Average power factor is 0.943, within a healthy range, unlikely to attract reactive power penalties.
- Reactive export was detected, typically a neutral indicator linked to power factor correction equipment, worth checking against DNO/supplier charges.
- 66.6% of consumption (117,177 kWh/yr, est. £20,506) occurs outside declared opening hours (08:00–18:00, Mon/Tue/Wed/Thu/Fri), a significant out-of-hours load. Investigating HVAC scheduling, overnight standby equipment, or installing sub-metering is strongly recommended.
- Energy intensity is 117 kWh/m²/yr, good, within the lower range for commercial buildings.

• SITE PARAMETERS SUMMARY

OCCUPANCY ANALYSIS • 08:00-18:00, MON/TUE/WED/THU/FRI

In-hours consumption **58,738 kWh** (33.4%)

Out-of-hours consumption **117,177 kWh** (66.6%)

Est. out-of-hours cost **£20,506 / yr**

66.6% of consumption occurs outside opening hours, consider investigating standby loads, HVAC scheduling, or sub-metering to identify reduction opportunities.

COST BREAKDOWN • DUAL RATE, DAY 25P / NIGHT 10P PER KWH

Day rate consumption **141,651 kWh → £35,413**

Night rate consumption **34,263 kWh → £3,426**

Total estimated cost £38,839

Average daily cost **£106**

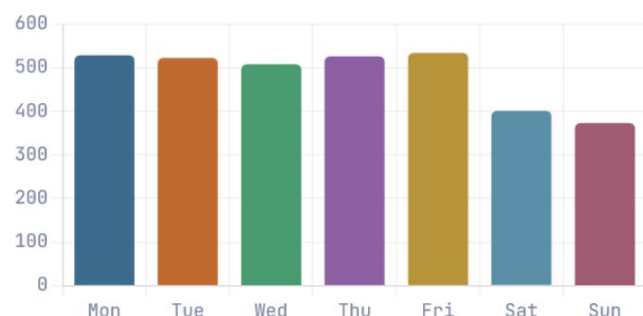
• DAILY CONSUMPTION TREND



• MONTHLY TOTAL KWH



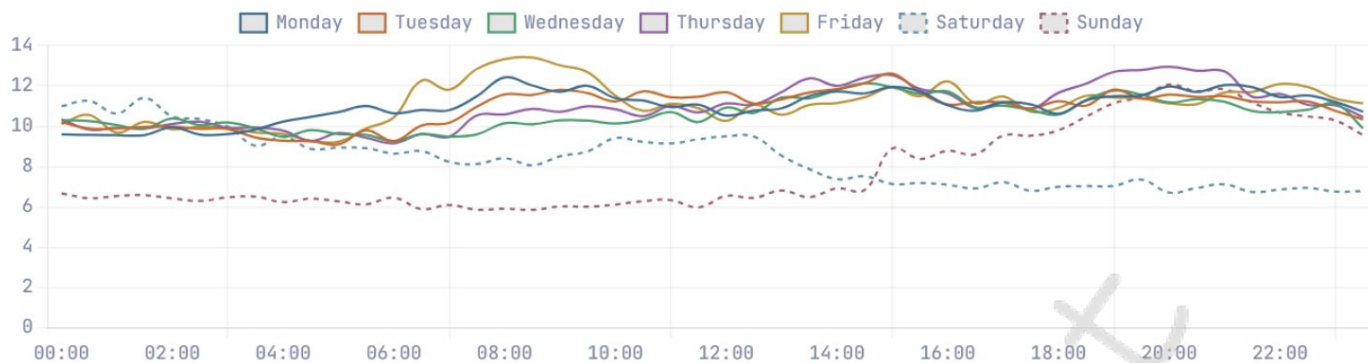
• BY DAY OF WEEK



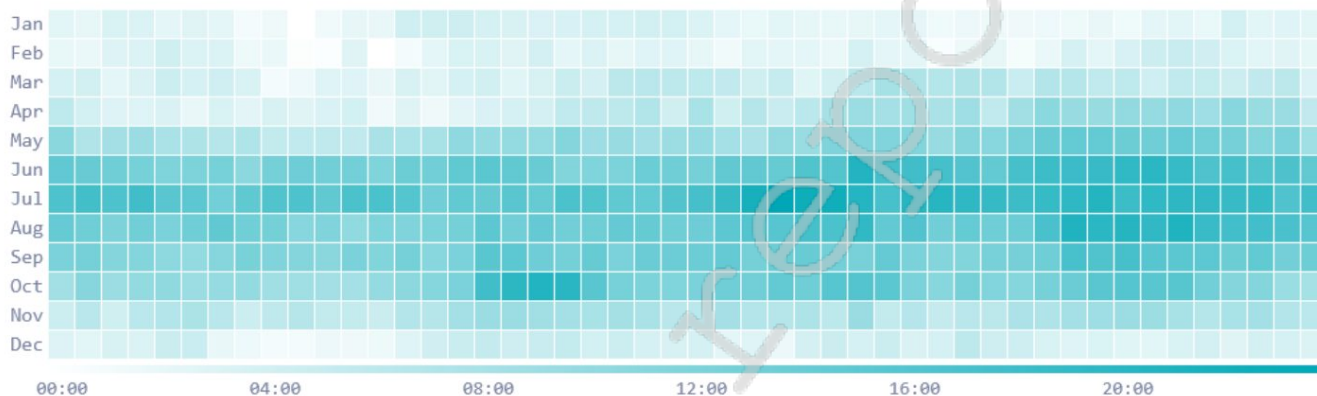
• AVERAGE HALF-HOURLY LOAD PROFILE



• DAILY LOAD PROFILES (MON - SUN)



• MONTHLY × TIME-OF-DAY HEATMAP (AVG KWH PER HALF-HOUR)



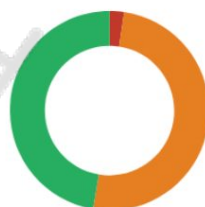
• DUOS BAND ANALYSIS

Based on average UK band times. Varies by DNO region.

Red Band, Weekdays 16:00–19:00

Amber Band, Weekdays 08:00–23:00 (excl. red)

Green Band, Nights, weekends & summer off-peak

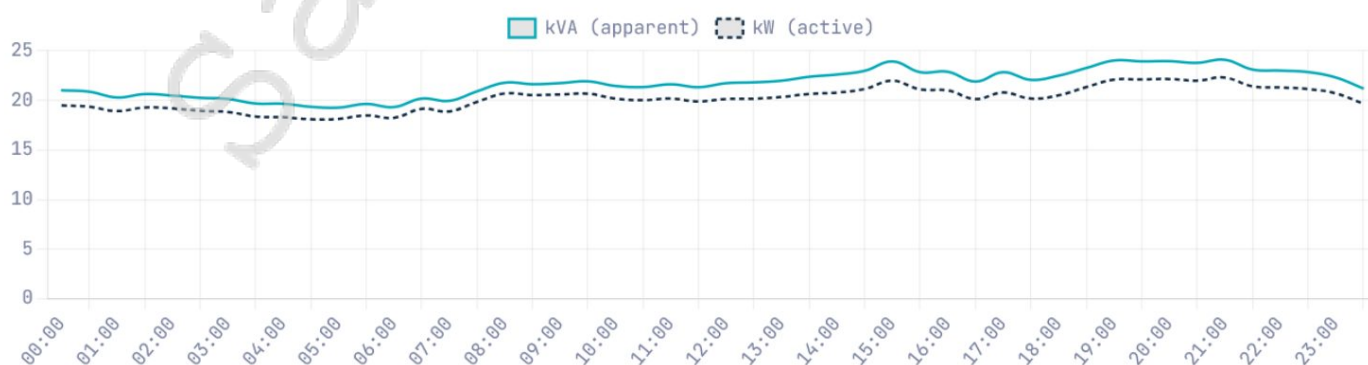


2.3% 4,131 kWh

50.3% 88,494 kWh

47.3% 83,289 kWh

• REACTIVE POWER PROFILE (KVARH AVG PER HALF-HOUR)



OPERATING PATTERN

Weekday avg consumption	524 kWh / day
Weekend avg consumption	387 kWh / day
Weekend vs weekday use	74%

Weekends show moderate activity relative to weekdays, some plant or systems continue running seven days a week.

BASELOAD PROFILE

Baseload demand (lowest hourly)	5.9 kW
Baseload value (always-on)	51,684 kWh / yr
Night-time avg demand (00:00–06:00)	18.8 kW

The baseload value takes the lowest hourly demand recorded across the analysis window and annualises it over 8,760 hours: the energy the site would use if that always-on floor ran unchanged all year. The night-time average is shown for comparison; the smaller the gap between the two, the steadier the around-the-clock load.

Watt TF · v1.0