

Asset Details

- Asset ID: PMP01
- Asset Name: Water treatment pump 1
- Manufacturer: Ebara
- Model: EVMSL64-5_2-30
- Rated Power: 30 kW
- Rated Voltage: 400 V
- Location: PUB Station Bedok

Performance Summary

- Data Period: 2025-10-01 to 2025-11-30
- Total Power Consumption: 24.5 MWh

Parameter	Average	Min	Max	Std Dev
Power Consumption	23.2 kWh	22.02 kWh	28.33 kWh	1.28 kWh
Temperature DE	59.03 °C	55.0 °C	72.22 °C	3.53 °C
Temperature NDE	59.32 °C	55.28 °C	72.58 °C	3.55 °C
Vibration DE	3.89 mm/s RMS	3.3 mm/s RMS	5.55 mm/s RMS	0.46 mm/s RMS
Vibration NDE	3.97 mm/s RMS	3.37 mm/s RMS	5.66 mm/s RMS	0.47 mm/s RMS

Operational Status

- All signals exhibit flat trends over the monitoring period.
- Vibration DE and NDE remain stable with low standard deviations of 0.46 mm/s RMS and 0.47 mm/s RMS respectively.
- Temperature DE and NDE show stable operation with standard deviations of 3.53 °C and 3.55 °C.
- Power consumption is stable with standard deviation of 1.28 kWh.
- Asset is operating continuously with zero missing data rate across all sensors.

The pump operates in stable condition with consistent performance across all monitored parameters.

Risk Assessment

- Vibration DE maximum of 5.55 mm/s RMS and NDE maximum of 5.66 mm/s RMS both exceed API 610 Preferred Operating Region threshold of 5.0 mm/s RMS, entering Allowable Operating Region (5.0 to 6.5 mm/s RMS range).
- Vibration mean values of 3.89 mm/s RMS (DE) and 3.97 mm/s RMS (NDE) remain within Preferred Operating Region.
- Temperature peaks at 72.22 °C (DE) and 72.58 °C (NDE) indicate elevated bearing temperatures during operation.
- Power consumption maximum of 28.33 kWh remains below rated capacity of 30 kW.

The asset presents moderate risk due to occasional vibration excursions into Allowable Operating Region and elevated bearing temperatures, requiring continued monitoring.