

Asset Details

- Asset ID: PMP01
- Asset Name: Water treatment pump 1
- Manufacturer: Ebara
- Model: EVMSL64-5_2-30
- Rated Power: 30.0 kW
- Rated Voltage: 400.0 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 show flat trends over the monitoring period.
- Power consumption remains stable with low variability (std 1.28 kWh).
- Temperature at both DE and NDE bearings are stable with consistent readings.
- Vibration levels at both DE and NDE are stable with low standard deviation.
- Asset is operating continuously with no missing data points.

The pump operates in steady-state condition with consistent performance across all monitored parameters.

Risk Assessment

- Vibration DE maximum 5.55 mm/s RMS and NDE maximum 5.66 mm/s RMS exceed API 610 Preferred Operating Region threshold of 5.0 mm/s RMS, entering Alert - Allowable Operating Region (5.0 to 6.5 mm/s RMS). Mean vibration values 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) are elevated but stable.
- Power consumption is stable and within expected range for rated 30.0 kW pump.

Moderate risk due to occasional vibration excursions into Alert zone. Bearing temperatures are elevated but stable. Continued monitoring recommended to detect any upward trends in vibration or temperature.