

Asset Details

- Asset ID: PMP02
- Asset Name: Water treatment pump 2
- Maker: Ebara
- Model: EVMSL64-5_2-30
- Rated Power: 30 kW
- Rated voltage: 400 V
- Location: PUB Station Bedok

Performance Summary

- Data Period: 2025-11-01 to 2025-11-30
- Total power consumption: 7.8 MWh
- Daily average power consumption: 258.6 kWh

Parameter	Average	Min	Max	Std Dev
Operating Power	24.87 kW	24.58 kW	25.13 kW	0.1 kW
Temperature DE	68.93°C	66.37°C	70.76°C	0.8°C
Temperature NDE	72.38°C	69.69°C	74.3°C	0.84°C
Vibration DE	5.65 mm/s RMS	5.2 mm/s RMS	5.97 mm/s RMS	0.14 mm/s RMS
Vibration NDE	6.5 mm/s RMS	5.98 mm/s RMS	6.87 mm/s RMS	0.16 mm/s RMS

Operational Status

- All monitored parameters show flat trends during the November 2025 period with stable operation
- Operating power maintained consistent levels with minimal variation (0.1 kW standard deviation)
- Temperature readings at both drive end and non-drive end remained stable with low standard deviations
- Vibration levels at both ends demonstrated stable operation with minimal fluctuation
- No intermittent spikes or dips observed in any monitored parameters during the assessment period

Risk Assessment

- Pump drive end overall vibration velocity RMS averaged 5.65 mm/s RMS, operating within API 610 Alert - Allowable Operating Region (5.0-6.5 mm/s RMS range)
- Pump non drive end overall vibration velocity RMS averaged 6.5 mm/s RMS, at the threshold between Alert and Danger zones per API 610 standards
- Maximum vibration reading of 6.87 mm/s RMS at non-drive end exceeded API 610 Danger zone threshold of 6.5 mm/s RMS
- Pump drive end and non-drive end temperatures operated at elevated levels with averages of 68.93°C and 72.38°C respectively
- Close monitoring is recommended for vibration levels, particularly at the non-drive end, with maintenance planning advised due to readings approaching and occasionally exceeding API 610 danger thresholds
- Ebara should be consulted regarding temperature operating limits as no OEM thresholds are available