

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: 2025-09-01 to 2025-12-31
- Total power consumption: 43.4 MWh
- Daily average power consumption: 355.6 kWh

Parameter	Average	Min	Max	Std Dev
Operating Power	24.43 kW	23.46 kW	25.13 kW	0.43 kW
Temperature DE	65.4°C	57.75°C	70.76°C	3.55°C
Temperature NDE	68.67°C	60.64°C	74.3°C	3.73°C
Vibration DE	5.24 mm/s RMS	4.04 mm/s RMS	5.98 mm/s RMS	0.44 mm/s RMS
Vibration NDE	6.03 mm/s RMS	4.65 mm/s RMS	6.88 mm/s RMS	0.51 mm/s RMS

Operational Status

- All monitored parameters show upward trends over the monitoring period
- Operating power remains stable with low standard deviation of 0.43 kW
- Temperature readings show increasing trend at both drive end and non-drive end
- Vibration levels demonstrate upward trend at both measurement points
- Asset maintains continuous operation with no missing data points

Risk Assessment

- Pump drive end overall vibration velocity RMS operates within Alert - Allowable Operating Region with average 5.24 mm/s RMS and maximum 5.98 mm/s RMS according to API 610 standards
- Pump non drive end overall vibration velocity RMS exceeds Danger zone threshold with maximum 6.88 mm/s RMS, surpassing the 6.5 mm/s RMS limit for vertically-suspended pumps below 300 kW
- Pump drive end temperature and pump non drive end temperature show elevated readings with maximums of 70.76°C and 74.3°C respectively, indicating thermal stress
- OEM threshold not available for temperature comparison
- Closely monitor vibration levels at non-drive end and plan for immediate maintenance as readings exceed API 610 danger zone limits
- Monitor temperature trends as upward trajectory may indicate bearing degradation or lubrication issues