

ASSET CONDITION ASSESSMENT

AstraPool E-Series 230 Pool Pump

Baseline non-invasive inspection • 7 August 2026

1. Asset identification

Manufacturer	AstraPool
Model	E-Series 230
Build date	28 March 2017
Supply	240 V
Rated current	3.9 A
Rated power	925 W
Rated speed	2,830 rpm
Normal operating schedule	2:00 pm to 5:00 pm
Inspection operating duration	Approximately 2 hours

2. Required function

Draw water from the pool and deliver sufficient flow through the filtration and chlorination system so treated water is returned to the pool.

3. Functional failures

- Fails to circulate water at all.
- Circulates water but at insufficient flow.
- Cannot maintain required circulation for the scheduled operating period.
- Circulates water but leaks water from the system.
- Operates but consumes excessive energy and/or overheats.

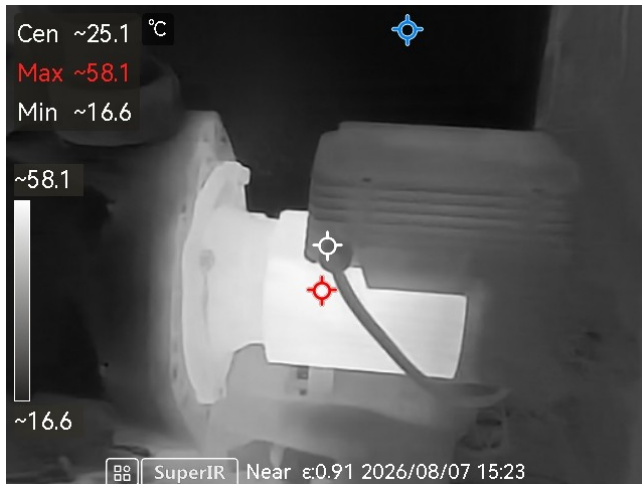
4. Inspection method and operating observations

A non-invasive baseline condition inspection was performed with the pump operating in its normal mode. Visual inspection found no obvious damage, leakage or visible signs of wear. Operating sound was perceived as normal. A screwdriver was used as a contact-listening aid at the motor/bearing area; no obvious grinding, knocking or irregular mechanical noise was perceived.

5. Thermographic observations

Thermal images were captured after approximately two hours of operation. The supplied images show maximum indicated temperatures of approximately 58.1 °C, 58.3 °C and 58.4 °C across similar views, with an opposite-end view showing

approximately 54.7 °C. The externally visible assembly displays a broadly consistent thermal pattern with no obvious isolated hot spot in the captured views. Camera emissivity shown in the images was $\epsilon = 0.91$.



Thermal view 1



Thermal view 2



Thermal view 3



Thermal view 4

6. Reference information and interpretation

Research undertaken for the assessment indicated that an operating surface temperature of approximately 58 °C is within the expected range used by the assessor for comparison with this type of motor, and that a typical pool-pump service life may be approximately 7-12 years. The original references were not supplied with this report and should be added before external publication or reliance. These values are not represented here as AstraPool manufacturer limits.

The pump build date places the asset at approximately nine years of age. Age increases the relevance of condition trending but does not, by itself, establish remaining useful life or demonstrate imminent failure.

7. Baseline condition-monitoring record

Domain	Baseline evidence	Future quantitative baseline
GC ELECTRICAL SAFETY ASSET CONDITION ASSESSMENT Training / Portfolio Record		

Thermal	Max indicated surface temperature approx. 58.4 °C; broadly consistent pattern.	Defined repeatable measurement points and controlled capture conditions.
Mechanical	Normal operating sound; contact listening found no obvious roughness, grinding or knocking.	Vibration amplitude and spectrum at repeatable locations.
Hydraulic	Pump circulating water; no visible leakage observed.	Flow rate and filter/system pressure.
Electrical	Nameplate: 240 V, 3.9 A, 925 W.	Operating current under defined hydraulic conditions.
Visual	No obvious damage, leaks or signs of wear observed.	Repeatable inspection photographs and defect history.

8. Limitations

This was a non-invasive condition assessment. No quantitative vibration measurement, water-flow measurement, operating-current measurement or internal mechanical inspection was performed. The inspection therefore cannot exclude developing bearing defects, impeller wear, reduced hydraulic efficiency, electrical deterioration or other faults that may not produce an externally detectable thermal, visual or audible signature at this stage.

9. Overall assessment

At the time of inspection, the AstraPool E-Series 230 was operating normally with no obvious visual, audible or externally detectable thermal abnormality. Maximum indicated surface temperature was approximately 58.4 °C after two hours of operation, with a relatively consistent thermal distribution across the inspected surfaces. Contact listening did not identify obvious abnormal mechanical noise. Although the pump's age places it within the researched typical service-life range, age alone is insufficient to determine remaining life. The present inspection provides a useful baseline but does not exclude faults requiring hydraulic, electrical or quantitative vibration measurements to detect.

10. Recommended next baseline measurements

- Record water flow rate under normal operating conditions.
- Record filter/system pressure under the same operating condition.
- Establish operating current where it can be measured safely and within authorised scope.
- Establish quantitative vibration measurements and spectra at repeatable motor/bearing locations.
- Define repeatable thermal measurement points and record ambient, reflected apparent temperature, humidity, distance, viewing angle and operating state.
- Retain a repeatable 20-30 second audio recording as a qualitative comparison reference.

11. Report status

This document records a training/portfolio baseline condition assessment. It is not a certification of electrical safety, a manufacturer condition statement, or a prediction of remaining useful life. Observation and measurement results should be trended over time and investigated by appropriately competent persons where anomalies develop.