



Inspection Report

Site Name Sample Report

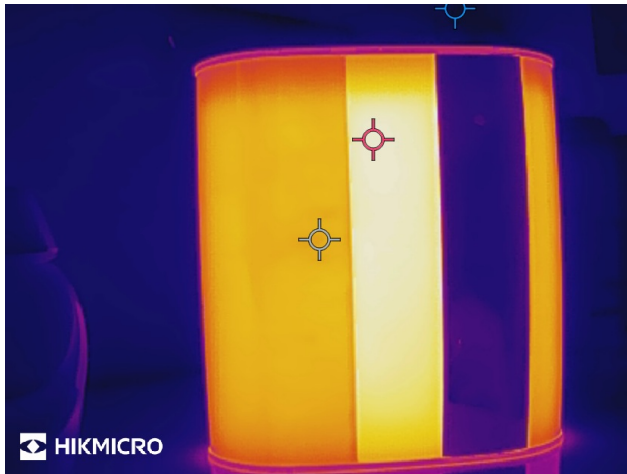
Site Location Sydney Australia

Date 26/05/2026

Inspector Andrew H
Certified Themographer #18805
Electrical Lic No: 321828c

Overview Page

Image Name	Captured At	Fault Rating	Page
2025-09-30 16.06.27_1.jpeg	2025-09-30 16:06:27	No Action Required	3
2025-09-30 16.06.05_2.jpeg	2025-09-30 16:06:05	Potential Deficiency: Investigation Required	4
2025-09-30 16.06.58_3.jpeg	2025-09-30 16:06:58	Repair Required	5
2025-09-30 16.06.44_4.jpeg	2025-09-30 16:06:44	Immediate Repair Required	6



2025-09-30 16.06.27



2025-09-30 16.06.27
Aligned Visual Image

Device Information

Device Model	M31
Device Serial No.	EA4182267

Image Information

Image Name	2025-09-30 16.06.27
IR Resolution	384*288
Picture Size	0.60 M
Captured At	2025-09-30 16:06:27

Image Parameters

Atmospheric Temp.	25.0°C
Humidity	50%
Emissivity	0.97
Distance	1.5m
Reflected Temp.	25.0°C

Measurements

Image: Max. Temp.	60.0°C
Image: Min. Temp.	25.1°C
Image: Center Temp.	55.1°C

Tag Note

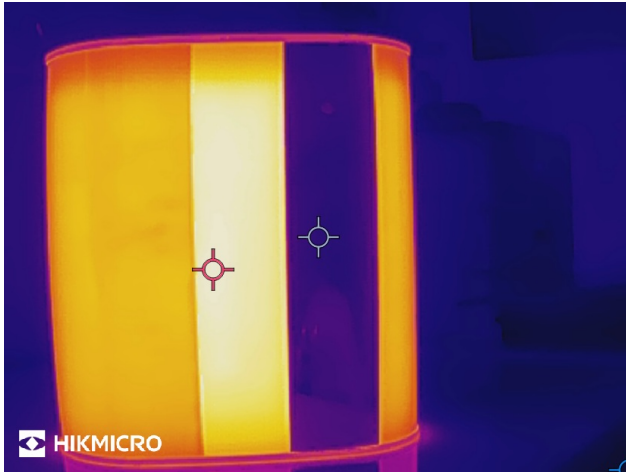
Fault Rating	No Action Required
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Text Note

Sample Report

Remarks

Thermal inspection of the switchboard was conducted under normal operating conditions at the time of testing



2025-09-30 16.06.05



2025-09-30 16.06.05
Aligned Visual Image

Device Information

Device Model M31
Device Serial No. EA4182267

Image Information

Image Name 2025-09-30 16.06.05
IR Resolution 384*288
Picture Size 0.60 M
Captured At 2025-09-30 16:06:05

Image Parameters

Atmospheric Temp. 25.0°C
Humidity 50%
Emissivity 0.98
Distance 1.5m
Reflected Temp. 25.0°C

Measurements

Image: Max. Temp. 59.9°C
Image: Min. Temp. 24.2°C
Image: Center Temp. 27.3°C

Tag Note

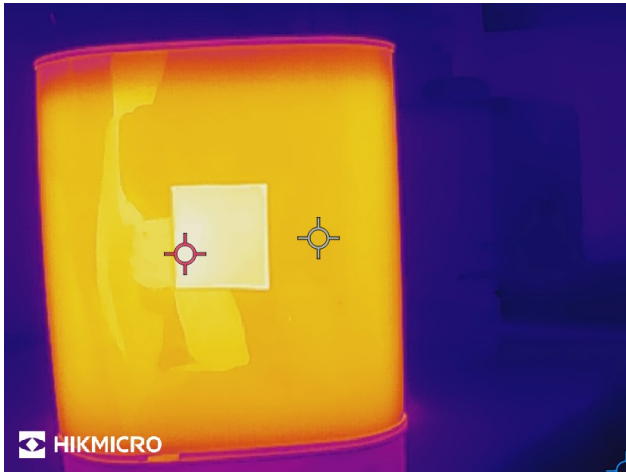
Fault Rating [Potential Deficiency: Investigation Required](#)

Text Note

Sample Report

Remarks

Thermal inspection of the switchboard was conducted under normal operating conditions at the time of testing



2025-09-30 16.06.58



2025-09-30 16.06.58
Aligned Visual Image

Device Information

Device Model M31
Device Serial No. EA4182267

Image Information

Image Name 2025-09-30 16.06.58
IR Resolution 384*288
Picture Size 0.60 M
Captured At 2025-09-30 16:06:58

Image Parameters

Atmospheric Temp. 25.0°C
Humidity 50%
Emissivity 0.97
Distance 1.5m
Reflected Temp. 25.0°C

Measurements

Image: Max. Temp. 60.5°C
Image: Min. Temp. 23.3°C
Image: Center Temp. 54.8°C

Tag Note

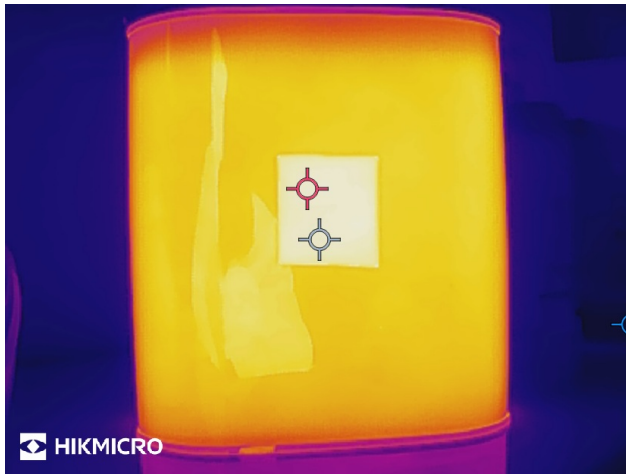
Fault Rating Repair Required

Text Note

Sample Report

Remarks

Thermal inspection of the switchboard was conducted under normal operating conditions at the time of testing



2025-09-30 16.06.44



2025-09-30 16.06.44
Aligned Visual Image

Device Information

Device Model M31
Device Serial No. EA4182267

Image Information

Image Name 2025-09-30 16.06.44
IR Resolution 384*288
Picture Size 0.60 M
Captured At 2025-09-30 16:06:44

Image Parameters

Atmospheric Temp. 25.0°C
Humidity 50%
Emissivity 0.97
Distance 1.5m
Reflected Temp. 25.0°C

Measurements

Image: Max. Temp. 60.4°C
Image: Min. Temp. 24.8°C
Image: Center Temp. 60.2°C

Tag Note

Fault Rating **Immediate Repair Required**

Text Note

Sample Report

Remarks

Thermal inspection of the switchboard was conducted under normal operating conditions at the time of testing

Conclusion – Thermal Imaging Report

Inspection Protocol	Only equipment that can be safely opened was inspected. Thermal imaging assumes each board was operating at $\geq 40\%$ load. Any boards not energised at the time will not show heat and are excluded from responsibility.
Scope	Scanning was carried out based on the areas nominated by the client. No other areas were included unless specified. Readers should review the switchboard list below and advise Atomic Electrical Group if any additional boards require inspection.
Reporting Limitations	This report reflects the conditions on the inspection day only. Future issues may occur outside this scope. This report reflects conditions observed at the time of inspection only. Atomic Electrical Group cannot guarantee future performance or reliability of equipment and accepts no responsibility for defects that develop after the inspection date.
Context	Occasionally, non-thermal issues (e.g. missing covers, damaged components) are noted as a courtesy only. These are not part of the thermal assessment. Serious electrical or safety issues such as exposed parts, recalled OEM gear, or ageing switchgear may not always produce thermal signatures. All listed recommendations should be actioned promptly.
Sealed & Interlocked Boards	Seals and shields are not removed from live boards. These panels are scanned externally only, and results are not conclusive. Atomic Electrical Group accepts no liability for hidden thermal faults within sealed compartments.
Common Heat Causes	1 ☐ Loose connections 2 ☐ Faulty components 3 ☐ Overload current. Clean, tight terminals generally perform normally, even under mild overloads.
Thermogram Interpretation	If a connection joint shows high heat – it's likely loose or oxidised. If the connection is tight but still hot, the component itself is defective. Replace any parts showing burn marks, oxidation, or charring.
Heat Damage Repairs	Tightening a burnt joint may temporarily reduce heat but won't solve the root issue. Damaged parts should be cleaned or replaced. Repairs should follow the fault severity guide below.

Fault Severity Guide

Fault Level	Temp Difference	Action
No action required	0–5 °C	Normal. No action needed.
Potential deficiency	< 20–30 °C	Within limits. Repair at next shutdown (≤ 9 months).
Repair required	15–30 °C	Repair or reassess within 3 months.
Repair required/ To be inspected again	> 30 °C or 50–60 °C above ambient	Repair within 2–3 weeks.

Immediate repair required

> 60 °C above ambient

Immediate action required – site rep informed.

Reference Standards

Standard

AS 3768:1990

AS 3000 / AS 3300

Cable Temperature Guide

Notes : SEPERATE REPORT SENT OUTLINING ELECTRICAL COMPLIANCE AND DEFECTS.

Notes

Used to determine severity of faults in switchgear.

Electrical installation & temperature-limit standards.

Cables above 60–70 °C show accelerated ageing – treat as Serious to Urgent.

Thermal imaging is a non-invasive diagnostic tool and cannot identify all electrical defects. Faults that are not generating a detectable thermal anomaly at the time of inspection may not be identified.