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Electrical Infrared & Thermal Imaging Inspection 2026

Sample Facility (Demo)

123 Example Avenue, Anytown

Report Properties

Report Title	IR Scan & Electrical Inspection 2026
Company Name	Sample Client Inc.
Contact Person	Alex Client
Phone	(555) 555-0100
Email	contact@example.com
Site Name	Sample Facility (Demo)
Site Location	123 Example Avenue, Anytown
Thermographer	Joe Smith, Level II Thermographer
ITC Certification No.	123456
Inspection Date	June 01 2026

Cover Letter

November 8, 2026
Attn: Alex Client
Sample Client Inc.
123 Example Avenue, Anytown

Dear Alex,

Thank you for choosing Your Company Name to complete the electrical infrared inspection at your facility. Enclosed is the full report documenting our findings, including the thermal anomalies detected, their severity, and our recommended corrective actions.

Our certified thermographers inspected the electrical assets listed in the Asset Inventory at the end of this report. Any item flagged for repair should be addressed within the recommended timeframe, and we recommend a follow-up infrared inspection at intervals of no more than twelve months to maintain the reliability of your electrical infrastructure.

Should you have any questions regarding the findings, please do not hesitate to contact us.

Sincerely,

Joe Smith, Level II Thermographer

Your Company Name



Certificate of Infrared Inspection

Be it Known That:

Sample Client Inc.

Has Completed an In-Depth Thermographic Inspection on the Electrical Assets at:

Sample Facility (Demo)
123 Example Avenue, Anytown

On the Following Date(s):

June 01 2026

Scan completed by:

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Thermographer:
Joe Smith, Level II Thermographer

Conforming to ASNT SNT-TC-1A, NFPA 70B:23, CSA Z463:24, and NETA MTS (2023).

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IR Report Summary

On June 01 2026, Your Company Name conducted a comprehensive thermal inspection of electrical assets at Sample Facility (Demo), located at 123 Example Avenue, Anytown.

A total of **46** electrical assets were scanned. **2** thermal anomalies were identified in this report. **1** requires repair or servicing based on the severity ranking provided. The remainder of anomalies found should be reviewed during the next IR Scan for similarities.

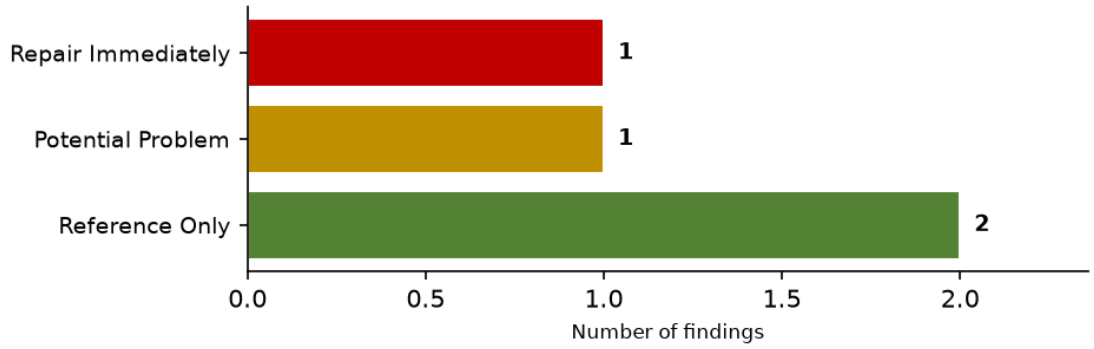
A complete list of all electrical equipment inspected can be found at the end of this report, under the heading “Asset Inventory List”.

To maintain the integrity and reliability of the facility’s electrical infrastructure, Your Company Name recommends conducting follow-up infrared inspections at intervals of no more than twelve months.

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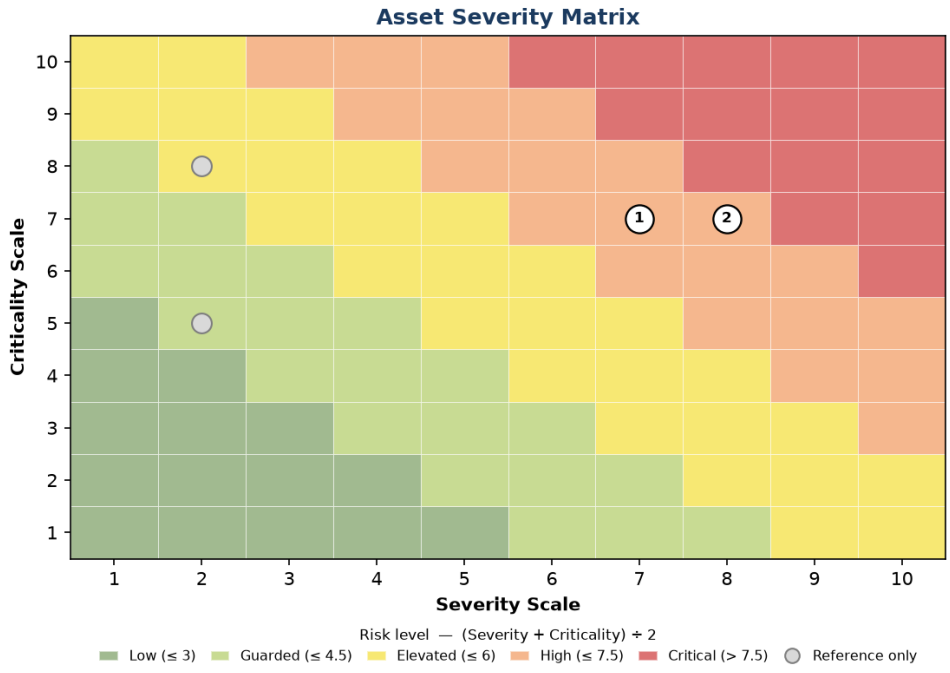
Findings at a Glance

46 asset(s) scanned · **2 thermal anomaly(ies) flagged** · **1 require immediate repair**



Severity Matrix

Every flagged thermal anomaly is plotted by Severity (thermal condition) against Criticality (importance to operations). Numbered markers are the repair items — their numbers match the Repair Summary below; grey dots are reference-only anomalies logged for monitoring. Items toward the upper-right warrant the most urgent attention.



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Repair Summary

No.	Asset	Label	Location	Max Temp	Problem	Recommendation	Severity	Page
1	16115	CRAC-1	Head End	53.6 °C	Extreme high temperature found.	Shut down equipment immediately. Notify equipment owner.	Repair Immediately	11
2	246882	BDFB 401	Head End	32.5 °C	High temperature connection.	Un-terminate, clean connection point, re-terminate and torque to manufacturers recommendations.	Potential Problem	14

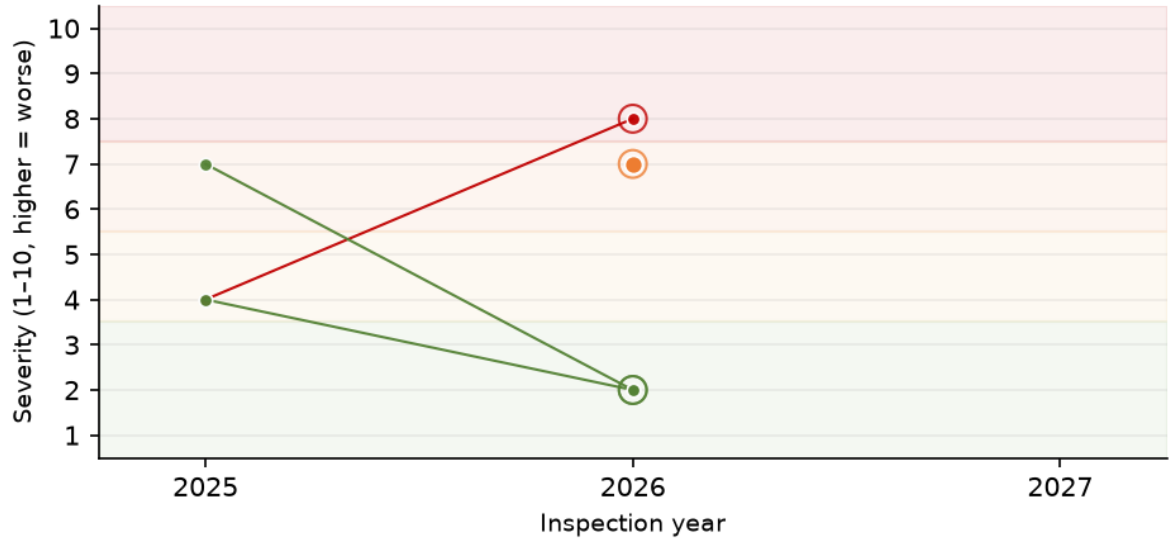
Numbers match the markers on the Severity Matrix. In the digital report, click an asset number or page to jump to that asset's inspection sheet.

Year-over-Year Comparison

Compared with 2025, across assets scanned in both years: **1 worsened, 2 improved, 0 unchanged** · 1 new asset(s) in 2026.

Assets to watch — severity (rated 1–10, higher = worse) increased since last year:

Asset Number	Location	Equipment	Severity 2025	Severity 2026	Change
246882	Head End	BDFB 401	4	8	+4



Assets (click to view): **#246882** **#246871** **#246861** **#16115**

Each line is one asset's severity across the inspection program; the haloed point is this year's reading. Assets at repair-level severity are shown even when unchanged; a single dot is a new asset first recorded this year. Assets that improved since last year are shown too. The chart extends as future scans are completed.

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Risk Prioritization

Condition	Findings	Industry failure likelihood
Repair Immediately	1	≈95% fail within 30 days (ΔT > 20 °C)
Potential Problem	1	≈25% fail within the next 2 to 5 years

Failure likelihoods are indicative, based on published NETA / industry temperature-rise practice; actual risk varies with load, duty cycle and environment.

Recommended Re-inspection (NFPA 70B / CSA Z463)

Based on the anomalies identified, a follow-up infrared inspection is recommended within 12 months (next due 2027-06-01). Equipment flagged for immediate or required repair should be re-checked once the corrective work is done.

Schedule the re-inspection: Add to Google Calendar · Download calendar file (.ics)

The .ics file (saved beside this report) opens your default calendar — Apple Calendar, Windows Calendar or Outlook; the Google link opens in your browser. The event repeats annually with a two-week reminder.

Re-inspection intervals follow a condition-based maintenance schedule consistent with NFPA 70B (US) and CSA Z463 (Canada). Neither standard prescribes fixed thermographic re-scan intervals; the intervals here are driven by each finding's condition, and assets in normal condition follow the facility's routine cycle (typically 1–5 years). Next-due dates are calculated from the inspection date.

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Technician Notes, Observations & Recommendations

- All areas are very clean with access to all electrical equipment. All electrical equipment is in excellent condition.

- IR Scan could not be performed on any of the feeder breakers in the main switchboard due to breakers having a dead front and the back of the switchboard being inaccessible. It is recommend to isolate the switch board and performing mechanical and electrical maintenance on the switchboard as ANSI/NFPA 70B state that electrical equipment including Panelboard, Switchboards should be cleaned and mechanically/electrically tested every 5 years. NFPA 70B also states that if equipment has missed their last two maintenance cycles they should be tested within 12 months.

- Arc Flash study is older than 5 years. CSA Z462 and NFPA 70E state that Arc flash studies should be reviewed periodically, such as every five years, or when changes are made to the electrical system. Recommend updating Arc Flash study and labels to comply with CSA Z462.

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Company Summary

Your Company Name provides infrared thermographic inspection of electrical systems.

The purpose of an infrared inspection is to detect abnormal heat in energized electrical equipment. Unusual heating is commonly caused by loose or un-torqued connections, oxidation between dissimilar metals, circuit overloading, load imbalance, or harmonics.

This survey acts as a predictive tool to detect unforeseen problems in electrical distribution systems and to satisfy insurance requirements for an infrared scanning program per current industry guidelines.

Per NFPA 70B 7.4.4, single-point thermal measurements should be taken at a minimum of 40% of nominal circuit loading after reaching steady-state temperature. Readings under minimal load can falsely indicate a “No-Fault” condition.

Severity Model

Rating	ΔT vs Similar Component	ΔT vs Ambient Air	Recommended Action
Reference Only	1 – 5 °C	1 – 10 °C	Reference only; review at next scheduled scan.
Potential Problem	5 – 10 °C	11 – 20 °C	Possible deficiency; warrants investigation.
Repair Required	10 – 20 °C	21 – 40 °C	Probable deficiency; repair as time permits.
Repair Immediately	> 20 °C	> 40 °C	Major discrepancy; repair immediately.

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Asset Tag No. 16115 Equipment Label: CRAC-1

Fault Rating: Repair Immediately

Image Title: DTI_00317.jpeg Image Date: 2025-06-24 14:07:43 Camera Make & Model: HIKMICRO

Radiometric Image



Digital Image



Equipment Summary:

Asset Tag No.	16115
Building:	Data Center
Location:	Head End
Label:	CRAC-1
Equipment Type:	Control Panel
Rating:	208V, 107.5A
Problem:	Extreme high temperature found.
Recommendation:	Shut down equipment immediately. Notify equipment owner.
Action:	Repair Immediately

Measurements:

Sp1	53.6 °C
Sp2	
Bx MAX	53.6 °C
Δt	36.6 °C

Parameters:

Emissivity	0.97
Distance	0.00 m
Atmospheric temp.	21.2 °C
Relative humidity	50%
Reference temp.	21.2 °C
Ext. optics temp.	0.0 °C
Ext. optics trans.	1.00
Lens	

Technician Notes:

IR Scan is showing a high resistance connection on the Phase A, load side stak-on crimp connection for the main fan contactor. The current draw is balanced and the highest temperature is on the stak-on crimp indicating a failing crimp connection. Recommend replacing stak-on crimp.

Current Draw: Phase A: 16.5A, B: 16.5A, C: 16.5A

Amperage Readings:

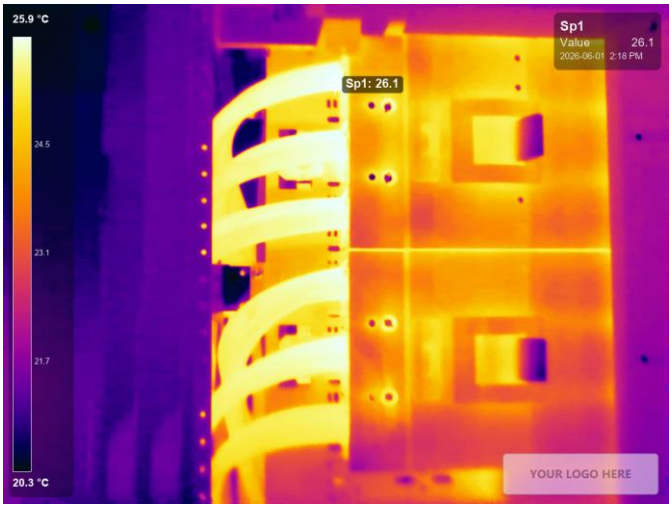
	Rated	Recorded
Phase A	107.5A	16.5A
Phase B	107.5A	16.5A
Phase C	107.5A	16.5A

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Asset Tag No. 246861
Fault Rating: Reference Only
Equipment Label: Distribution Section Feeders To Dist. Panels RDP-1…

Image Title: FLIR3307.jpg Image Date: 2026-06-01 14:18:11 Camera Make & Model: FLIR T865

Radiometric Image



Digital Image



Equipment Summary:

Asset Tag No.	246861
Building:	Data Center
Location:	Main Electrical Room
Label:	Distribution Section Feeders To Dist. Panels RDP-1 & RDP-2
Equipment Type:	Main Switchboard Distribution Section
Rating:	120/208V, 3000A
Problem:	No significant thermal irregularities.
Recommendation:	IR Ok. Monitor condition.
Action:	Monitor

Measurements:

Sp1	24.8 °C
Sp2	
Bx MAX	26.1 °C
Δt	1.3 °C

Parameters:

Emissivity	0.98
Distance	0.97 m
Atmospheric temp.	20.0 °C
Relative humidity	50%
Reference temp.	20.0 °C
Ext. optics temp.	19.0 °C
Ext. optics trans.	1.00
Lens	FOL10

Amperage Readings:

	Rated	Recorded
Phase A	195A	206A
Phase B	195A	200A
Phase C	195A	195A

Technician Notes:

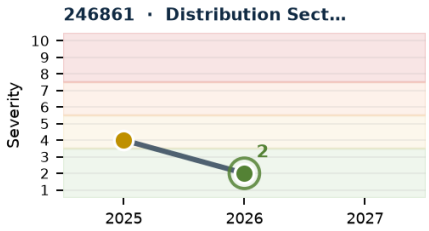
IR Ok, temperature corelates to the current draw. Photo is for reference only.

Feeder Dist. RDP-1:

Current Draw: Phase A: 206A, B: 200A, C: 195A

Feeder Dist. RDP-2:

Current Draw: Phase A: 205A, B: 201A, C: 200A



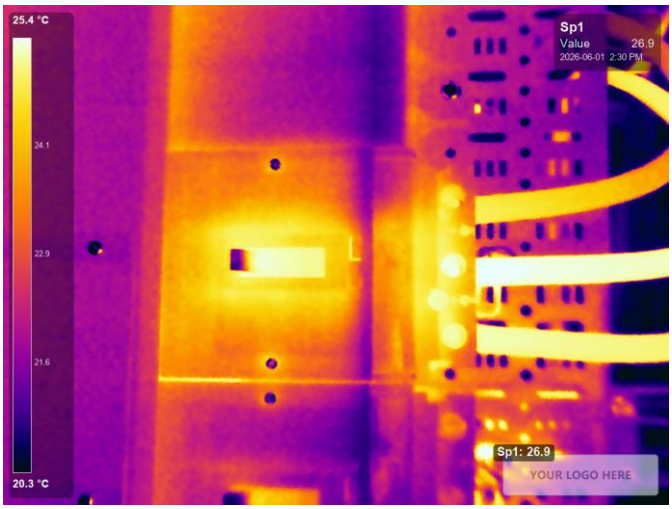
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Asset Tag No. 246871 Equipment Label: Panel RP1

Fault Rating: Reference Only

Image Title: FLIR3309.jpg Image Date: 2026-06-01 14:30:52 Camera Make & Model: FLIR T865

Radiometric Image



Digital Image



Equipment Summary:

Asset Tag No.	246871
Building:	Data Center
Location:	Battery Room
Label:	Panel RP1
Equipment Type:	Electrical Panel
Rating:	120/208V, 225A
Problem:	Suspected loose connection.
Recommendation:	Replace breaker.
Action:	Repair Required

Measurements:

Sp1	23.1 °C
Sp2	
Bx MAX	25.7 °C
Δt	2.7 °C

Parameters:

Emissivity	0.98
Distance	0.48 m
Atmospheric temp.	20.0 °C
Relative humidity	50%
Reference temp.	20.0 °C
Ext. optics temp.	19.0 °C
Ext. optics trans.	1.00
Lens	FOL10

Technician Notes:

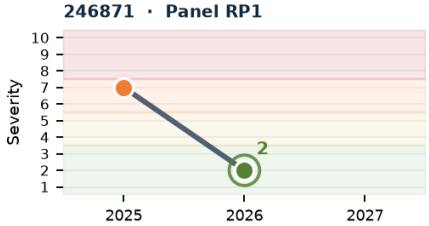
IR Scan is showing a high resistance connection on the line side screw of the 20A breaker for CCT 3: Hub room lights. Technician checked screw last year which is stripped and un able to be tightened.

*Screw has been replaced. Re scan has been performed and no thermal anomaly was detected. No further repair required, will review next IR Scan.

Current Draw: 11A

Amperage Readings:

	Rated	Recorded
Phase A	20A	11A
Phase B	20A	11A
Phase C	20A	11A



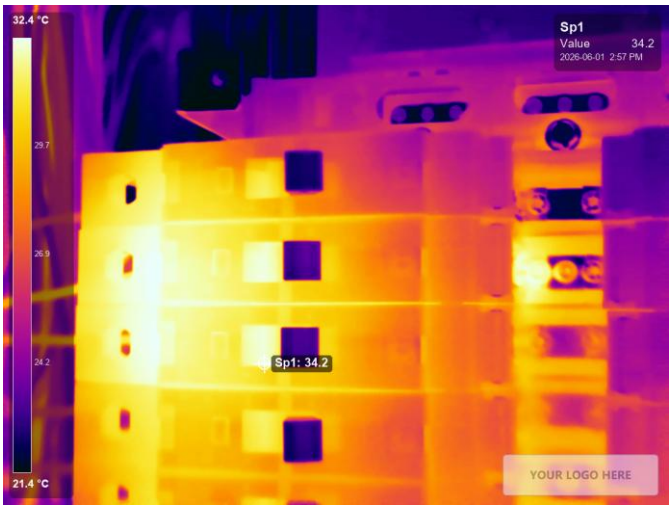
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Asset Tag No. 246882 Equipment Label: BDFB 401

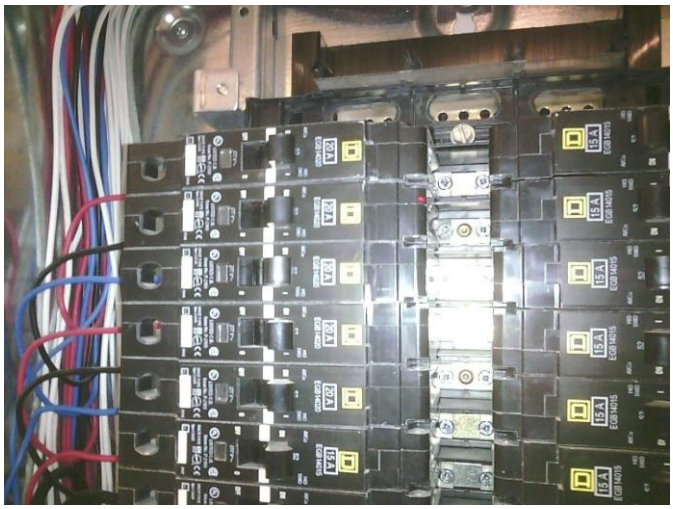
Fault Rating: Potential Problem

Image Title: FLIR3311.jpg Image Date: 2026-06-01 14:57:01 Camera Make & Model: FLIR T865

Radiometric Image



Digital Image



Equipment Summary:

Asset Tag No.	246882
Building:	Data Center
Location:	Head End
Label:	BDFB 401
Equipment Type:	DC Panel
Rating:	48VDC, 800A
Problem:	High temperature connection.
Recommendation:	Un-terminate, clean connection point, re-terminate and torque to manufacturers recommendations.
Action:	Repair Required

Measurements:

Sp1	26.2 °C
Sp2	
Bx MAX	32.5 °C
Δt	6.3 °C

Parameters:

Emissivity	0.98
Distance	0.28 m
Atmospheric temp.	20.0 °C
Relative humidity	50%
Reference temp.	20.0 °C
Ext. optics temp.	19.0 °C
Ext. optics trans.	1.00
Lens	FOL10

Technician Notes:

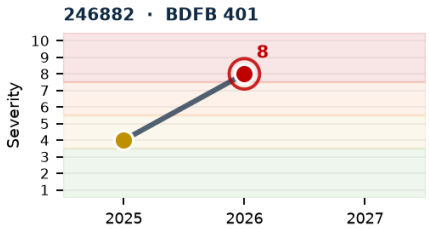
IR Scan is showing a higher than normal temperature on the wire labeled 507-49/B1/-48V where it connects to -48 Bus B1.

The temperature on this connection is significantly higher than any other scanned at this Hub. Due to the highest temperature being at the termination point it is recommend to check connections.

*Lug has been replaced and relocated to new bus. Re scan performed and no thermal anomaly was detected. No further repair required, will review next IR Scan.

Amperage Readings:

	Rated	Recorded
Phase A	800A	
Phase B	800A	
Phase C	800A	



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Report Conclusion

The thermal anomalies identified in this report should be addressed according to the urgency and recommended timeframes provided. Any anomalies labeled “Repair Immediately” should be re-evaluated through a follow-up infrared scan after repair or replacement, with all other items requiring a follow-up IR scan within 12 months of the original inspection date.

Given the essential nature of the electrical equipment scanned, it is strongly recommended that the facility implement routine electrical infrared inspections at intervals not exceeding 12 months.

We appreciate the opportunity to support your team and thank you for choosing Your Company Name.

This report has been approved by:

Joe Smith, Level II Thermographer,
Your Company Name

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Asset Inventory List

Asset No.	Room / Location	Equipment Label	Equipment	Make	Model	Rating (V, A)	IR Photo	Comments	Severity	Criticality	Page
246855	Main Electrical Room	Main Breaker	Breaker	Square D	NW32H1	208V, 3200A		IR Ok			
246856	Main Electrical Room	Generator Breaker	Breaker	Square D	RG2000	208V, 2000A		IR Ok			
246857	Main Electrical Room	Tap Box	Breaker	Square D	RG2000	208V, 2000A		IR Ok			
246858	Main Electrical Room	800A Fusible Disc. Switch	Breaker	Square D	MHL36800	208V, 800A		IR Ok			
246859	Main Electrical Room	Feeder To ATS	Breaker	Square D	NW32H	208V, 3200A		IR Ok			
246860	Main Electrical Room	ATS	ATS	ASCO	G7ADTBB33 0005XC	120/208V, 3000A		IR Ok			
246861	Main Electrical Room	Distribution Section Feeders To Dist. Panels RDP-1 & RDP-2	Main Switchboard Distribution Section	CSL	JB14718	120/208V, 3000A	FLIR3307	IR Ok, temperature corelates to the current draw. Photo is for reference only. Feeder Dist. RDP-1: Current Draw: Phase A: 206A, B: 200A, C: 195A Feeder Dist. RDP-2: Current Draw: Phase A: 205A, B: 201A, C: 200A	2	8	12
246861	Main Electrical Room	Distribution Section - Feeder To RP-1	Main Switchboard Distribution Section	CSL	JB14718	120/208V, 3000A		IR Scan is showing a higher temperature on the Phase B of the breaker. Temperature corelates to the current draw which is highest on Phase B. No repair required, photo is for reference only. Current Draw: Phase A: 21A, B: 54A, C: 42A			
246862	Main Electrical Room	Surge Protector	Control Panel	Surgelogic	TVS2EMA48 AIC	120/208V, 30A		IR Ok			
246863	Main Electrical Room	Panel M2	Distribution Panel	Square D	HCP	120/208V, 400A		IR Ok			
246864	Main Electrical Room	Panel M1	Distribution Panel	Square D	HCP	120/208V, 400A		IR Ok			
246865	Main Electrical Room	Panel M3	Distribution Panel	Square D	HCP	120/208V, 400A		IR Ok			
246866	Battery Room	INV-DP	Distribution Panel	Square D	HCP	120/208V, 400A		IR Ok			
246867	Battery Room	INV. 1	Inverter	Benning	Invertronic-M 120KVA	120.208V, 347A		IR Ok			
246867	Battery Room	INV. 2	Inverter	Benning	Invertronic-M 120KVA	120.208V, 347A		IR Ok			

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Asset No.	Room / Location	Equipment Label	Equipment	Make	Model	Rating (V, A)	IR Photo	Comments	Severity	Criticality	Page
246868	Battery Room	Rectifier Bay	Rectifier	Argus	053-162-20	48VDC, 2200A		IR Ok			
246868	Battery Room	Rectifier Bay	Rectifier	Argus	053-162-20	48VDC, 2200A		IR Ok			
246868	Battery Room	Distribution Bay	Distribution Panel	Argus	053-162-20	48VDC, 3600A		IR Ok			
246868	Battery Room	Distribution Bay	Distribution Panel	Argus	053-162-20	48VDC, 3600A		IR Ok			
246868	Battery Room	Distribution Bay	Distribution Panel	Argus	053-162-20	48VDC, 3600A		IR Ok			
246869	Battery Room	Panel RDP-2	Distribution Panel	Square D	HCM	120/208V, 800A		IR Ok			
246870	Battery Room	Panel RDP-1	Distribution Panel	Square D	HCM	120/208V, 800A		IR Ok			
246871	Battery Room	Panel RP1	Electrical Panel	Square D	NF	120/208V, 225A	FLIR3309	IR Scan is showing a high resistance connection on the line side screw of the 20A breaker for CCT 3: Hub room lights. Technician checked screw last year which is stripped and un able to be tightened. *Screw has been replaced. Re scan has been performed and no thermal anomaly was detected. No further repair required, will review next IR Scan. Current Draw: 11A	2	5	13
246872	Battery Room	Battery Bank 1	Breaker	Electric Equipment Engineering	EEJS400	80VDC, 1200A		IR Ok			
246873	Battery Room	Battery Bank 2	Breaker	Electric Equipment Engineering	EEJS400	80VDC, 1200A		IR Ok			
246874	Battery Room	Battery Bank 3	Breaker	Electric Equipment Engineering	EEJS400	80VDC, 1200A		IR Ok			
246875	Battery Room	Battery Bank 4	Breaker	Electric Equipment Engineering	EEJS400	80VDC, 1200A		IR Ok			
246876	Battery Room	Battery Bank 5	Breaker	Electric Equipment Engineering	EEJS400	80VDC, 1200A		IR Ok			
246877	Battery Room	Battery Bank 6	Breaker	Electric Equipment Engineering	EEJS400	80VDC, 1200A		IR Ok			
246878	Battery Room	Battery Bank 7	Breaker	Electric Equipment Engineering	EEJS400	80VDC, 1200A		IR Ok			

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Asset No.	Room / Location	Equipment Label	Equipment	Make	Model	Rating (V, A)	IR Photo	Comments	Severity	Criticality	Page
246879	Battery Room	Battery Bank 8	Breaker	Electric Equipment Engineering	EEJS400	80VDC, 1200A		IR Ok			
246880	Head End	INVP-B	Electrical Panel	Square D	NQ	120/208V, 225A		IR Ok			
246881	Head End	BDFB 201	DC Panel	Argus	053-163-20	48VDC, 800A		IR Ok			
246882	Head End	BDFB 401	DC Panel	Argus	053-163-20	48VDC, 800A	FLIR3311	IR Scan is showing a higher than normal temperature on the wire labeled 507-49/B1/-48V where it connects to -48 Bus B1. The temperature on this connection is significantly higher than any other scanned at this Hub. Due to the highest temperature being at the termination point it is recommend to check connections. *Lug has been replaced and relocated to new bus. Re scan performed and no thermal anomaly was detected. No further repair required, will review next IR Scan.	8	7	14
246883	Head End	BDFB 601	DC Panel	Argus	053-163-20	48VDC, 800A		IR Ok			
246884	Head End	BDFB 608	DC Panel	Alpha	914	48VDC, 640A		IR Ok			
246885	Head End	BDFB 801	DC Panel	Argus	053-163-20	48VDC, 800A		IR Ok			
246886	Head End	BDFB 906	DC Panel	Alpha	914	48VDC, 640A		IR Ok			
246887	Head End	BDFB 1001	DC Panel	Argus	053-163-20	48VDC, 800A		IR Ok			
246888	Head End	BDFB 1201	DC Panel	Argus	053-163-20	48VDC, 800A		IR Ok			
246889	Head End	INVP-A	Electrical Panel	Square D	NQ	120/208V, 225A		IR Ok			
16115	Head End	CRAC-1	Control Panel	Liebert	DS053AUC0EI664A	208V, 107.5A	DTI_00317	IR Scan is showing a high resistance connection on the Phase A, load side stak-on crimp connection for the main fan contactor. The current draw is balanced and the highest temperature is on the stak-on crimp indicating a failing crimp connection. Recommend replacing stak-on crimp. Current Draw: Phase A: 16.5A, B: 16.5A, C: 16.5A	7	7	11

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Asset No.	Room / Location	Equipment Label	Equipment	Make	Model	Rating (V, A)	IR Photo	Comments	Severity	Criticality	Page
16116	Head End	CRAC-3	Control Panel	Liebert	DS053AUC0EI664A	208V, 107.5A		IR Ok			
16117	Head End	CRAC-2	Control Panel	Liebert	DS053AUC0EI664A	208V, 107.5A		IR Ok			
16118	Head End	CRAC-4	Control Panel	Liebert	DS053AUC0EI664A	208V, 107.5A		IR Ok			
16119	Head End	CRAC-5	Control Panel	Liebert	DA085DP1CD585S	208V, 152.2A		IR Ok			