

SITE SURVEY REPORT

Thermal Imaging Survey

Prepared for	Ribbleton Cold Stores Ltd
Date	24 Sep 2026
Site	Ribbleton Cold Stores, Preston
Prepared by	W. Ashworth

FORM

Thermal Imaging Survey

1. Record details and scope

Project	Ribbleton Cold Stores, Preston: switchroom thermal imaging survey
Site or premises address	Unit 11, Ribbleton Trade Park, Preston PR2
Client or organisation	Ribbleton Cold Stores Ltd
Record date	24 Sep 2026
Person completing the record	W. Ashworth

For competent thermographers. This records observations and interpretation, not a diagnosis from colour alone, an electrical safety certificate or permission to expose live parts.

FLIR explains that temperature interpretation depends on emissivity, reflected radiation and measurement conditions. HSE electrical guidance requires safe maintenance arrangements; using a camera does not make access to live equipment safe.

2. Survey method

Survey purpose and agreed scope	Thermal survey of the main LV switchboard and 6 distribution boards under normal load, to find hot spots for maintenance planning. Not an electrical inspection or test.
Camera, lens and calibration reference	Thermal camera TC-05, standard lens, calibration ref TC05-CAL-2603
Thermographer and competence reference	W. Ashworth, thermographer, competence record TH-WA-0331
Weather, ambient conditions and operating loads	Indoors, switchroom ambient 19 °C. Weekday 10:00 to 12:30 with the cold store plant running. Site electrician estimated loads at 60 to 70% of normal peak.

3. Thermograms

Thermal observation 1: Main LV switchboard MSB-1, incoming cables

Asset or location	Main LV switchboard MSB-1, incoming cables
Original radiometric file reference	IR_0924_001
Emissivity, reflected temperature, distance and other settings	Emissivity 0.95 on cable insulation, reflected 19 °C, distance 1.5 m
Measured temperatures, units and comparison point	Max 34 °C on L1, L2 and L3 at 33 °C. Reference: ambient 19 °C

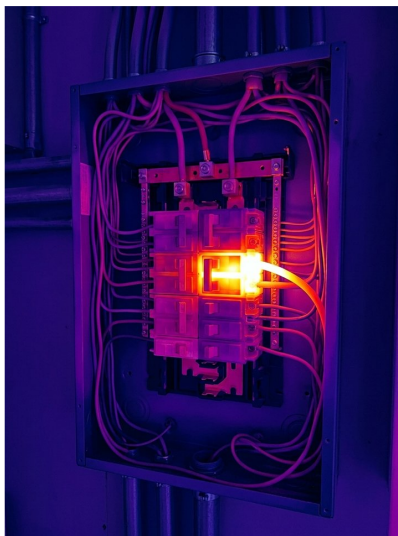
Interpretation, basis and uncertainty

Even across phases. No anomaly found under the load on the day.

Thermal observation 2: DB-3 (compressor feeds), way 4, L2 cable termination

Asset or location	DB-3 (compressor feeds), way 4, L2 cable termination
Original radiometric file reference	IR_0924_014
Emissivity, reflected temperature, distance and other settings	Emissivity 0.95 on insulation next to the lug, reflected 20 °C, distance 0.8 m
Measured temperatures, units and comparison point	68 °C on L2, compared with 41 °C on L1 and L3 of the same circuit
Interpretation, basis and uncertainty	27 °C above the other phases on the same circuit. Pattern suggests a high-resistance connection at the L2 termination. Load balance not confirmed with a clamp meter and bare metal not measured because of low emissivity.

Thermal export and corresponding visible image

**Thermal observation 3: DB-5 lighting board**

Asset or location	DB-5 lighting board
Original radiometric file reference	IR_0924_021
Emissivity, reflected temperature, distance and other settings	Emissivity 0.95 on breaker bodies, reflected 19 °C, distance 1.0 m
Measured temperatures, units and comparison point	Max 29 °C, even across the board
Interpretation, basis and uncertainty	No anomaly found, but lighting load was low in daylight so this is of limited value.

4. Limitations and follow-up

Access, loading, surface and environmental limitations	DB-2 cover not removed, no safe access. Loads below peak. Bare busbars not measured because of low emissivity. Survey shows surface temperatures only.
Confirmatory testing or specialist investigation	Electrician to isolate DB-3 way 4, check and re-terminate L2, then rescan under similar load.
Urgent concern and person informed	DB-3 way 4 L2 hot spot reported to site electrician T. Cain at 11:20
Technical reviewer	H. Moorcroft, senior thermographer

5. Actions and review

Are further actions required? Yes

Further action 1: Isolate DB-3 way 4, check the L2 termination and remake it. Job RCS-E-0927.

Action and evidence reference	Isolate DB-3 way 4, check the L2 termination and remake it. Job RCS-E-0927.
Person responsible	T. Cain, site electrician
Target date	1 Oct 2026
Action status	Completed
Completion evidence	L2 lug found loose and remade under isolation on 30 September. Job sheet RCS-E-0927.

Further action 2: Rescan DB-3 way 4 under similar load to confirm the repair.

Action and evidence reference	Rescan DB-3 way 4 under similar load to confirm the repair.
Person responsible	W. Ashworth
Target date	8 Oct 2026
Action status	Open

Further action 3: Arrange safe access to DB-2 for the next survey.

Action and evidence reference	Arrange safe access to DB-2 for the next survey.
Person responsible	T. Cain
Target date	31 Oct 2026
Action status	Open

Outstanding limitations and information to pass on	DB-2 not surveyed. Repair to DB-3 way 4 not yet confirmed by rescan.
Record status	Further work needed
Reviewed by	H. Moorcroft
Review date	28 Sep 2026
Author signature	

W. Ashworth

Signing records the information entered. It does not itself certify legal compliance, remove a limitation or authorise unsafe work.