

USA Ground Operations CIL Sheet

Critical Item: Transformer

Criticality Category: 1S

NASA Part No: None

Total Quantity: 1

Mfg/Part No: Westinghouse / DT-3 / LBE 15026

System: 60 Hertz Low Voltage Power System

Find No.	Qty	Area	PMN	Baseline	Drawing / Sheet
T-30	1	Pad-B	K61-1663	353.25	39K6150023 / 20

Function:

Provides stepped-down (480V-120V/208V) AC power for panel P-42. Panel P-42 provides power to Hypergol Vapor Detection System equipment racks.

Failure Mode No. Failure Mode	Failure Cause Failure Effect	Detection Method Time to Effect	Crit Cat
09ELB2-001.018 Fail open	Breakdown of windings insulation due to heat/age or other internal piece part structural failure. Loss of power to Panel P-42 and all Hypergol Vapor Detection System equipment racks. Failure could allow loss of life and vehicle during hazardous conditions.	LPS console operator will receive alarm indicating HVDS sensor failures Immediate	1S
09ELB2-001.019 Fail short to ground	Breakdown of windings insulation due to heat/age or other internal piece part structural failure. Loss of power to Panel P-42 and all Hypergol Vapor Detection System equipment racks. Failure could allow loss of life and vehicle during hazardous conditions.	LPS console operator will receive alarm indicating HVDS sensor failures Immediate	1S

ACCEPTANCE RATIONALE**Design:**

- Rated: 112.5 KVA Estimated load: 16.2 KVA
- Environment is normal for application.

Test:

- Operating characteristics are to be checked annually and require insulation resistance and voltage testing (ref. OMI I2001, Electrical Hardware Testing).

Inspection:

- OMRSD File VI requires visual inspection of transformer for signs of excessive heat and available output voltage annually.

Failure History:

- Current data on test failures, unexplained anomalies, and other failures experienced during ground processing activities can be found in the PRACA database. The PRACA database was researched and no data was found on this component in the critical failure mode.

Operational Use:

Correcting Action	Timeframe
There is no action which can be taken to mitigate the failure effect.	Since no correcting action is available, timeframe does not apply.