

E01-SAA01FT06-010  
SHEET 16 OF 16SAA09FT06-010  
OCT 10 1990

SFP Item: Transformer

Find Number: T-1

Criticality Category: 1S, 2

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SAA No: 09FT06-010, Rev. A

System/Area: EPS, Payload  
Canister TransporterNASA  
Part No: NonePMN/  
Name: H70-0833/  
Transporter EPSMfg. Westinghouse Corp.  
Part No: Y48M26T30ADrawing/  
Sheet No: 79K15394/  
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Function: Reduces 480-VAC, 225A, 3-phase, 60Hz power to 120/208 VAC, 100A, 3-phas for Panel TB.

Critical Failure Mode: Fail open (FMN 09FT06-010.004)/fail  
shorted (FMN 09FT06-010.005)

Cause: Defective insulation, Thermal overload

Failure Effect: Loss of 60Hz power to Panel TB and the I&amp;CS. Eventual loss of capability to detect smoke, fire, hypergols and to vent/smother a payload hypergol leak which could result in loss of life or payload. Also, loss of conditioned canister interior environment which could result in payload damage due to exceeding environmental limits (e.g. temperature, humidity, and contaminants).

## Acceptance Rationale

## Design:

- 0 Type EPT, epoxy encapsulated, totally enclosed dry type transformer suitable for hazardous atmospheres where safety and uninterrupted performance is essential.
- 0 Transformer is rated at 30 KVA and loaded at 8.3 KVA. Input voltage 480+/-1.0% VAC, 3-phase; output voltage 120/208 VAC.
- 0 Loss of power due to the transformer failure is detectable by I&CS subsystem. Fifteen (15) minute backup battery power.
- 0 Transformer is a standard commercial item.
- 0 This component is qualified through regular usage in this application over a four year period and by analysis of loads and voltages.

## Test:

- 0 Qualification and acceptance testing and manufacturers/assembly (source) inspection is in accordance with the requirements of NASA Payload Canister Mechanical and Electrical Installation Specification 79K14547, Section 16190 which requires the "Conduct of all tests and checkout as specified" in the procurement documentation.
- 0 File VI OMRB requires an annual insulation test, by TPS H70-0833-01-0003 Inspection:
- 0 Function verification prior to each use is accomplished per TPS H70-0833-01-0003
- 0 OMI E6408 will be revised to incorporate the (annual) File VI OMRSD requirements

## Failure History:

- 0 No MDAC-KSC failure history in the critical failure mode since turnover in October 1983.

Operational Use: N/A