

EO1-SAA01FT06-010
SHEET 10 OF 16SAA09FT06-010
OCT 10 1990

SFP item: Circuit Breaker

Find Number: CB-3, Panel TA

Criticality Category: 1S, 2

SAA No:	09FT06-010, Rev. A	System/Area:	EPS, Payload Canister Transporter
NASA Part No:	None	PMN/ Name:	H70-0833/ Transporter EPS
Mfg. Part No:	Westinghouse Corp. Cat. No. LB3400F	Drawing/ Sheet No:	79K15394/ 16

Function: Provides overload protection of Panel TA.
Critical Failure Mode: Premature Trip (FMN 09FT06-010.001)
Cause: Internal Part Failure

Failure Effect: Loss of 60Hz power to Panel TA, Panel TB, the ECS, and the I&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 Component Specifications:

	Rated	Actual
AC Voltage	600	480

 Material: molded case (enclosed)
- 0 Breaker set to trip at 225A and loaded at 80A.
- 0 TRI-PAC combines thermal trip protection, magnetic trip protection, and current-limiting protection.
- 0 Breaker is a standard commercial item.
- 0 Loss of power due to breaker trip is detectable by I&CS. Fifteen (15) minute backup battery power.
- 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 OMRS requirements which will be implemented by revision of OMI E6408 include:
 - Annual CB operation, insulation test and performance test
 - Time-current test with first use/component replacement
 - File VI OMRS requirements test/inspection) are presently accomplished by TPS H70-0833-01-0003

Inspection:

- 0 File VI OMRS requirements, which will be implemented by revision of OMI E6408, includes an annual terminal inspection

Failure History:

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

Operational Use: N/A