

E01-SAA01FT06-010  
SHEET 11 OF 16

SAA09FT06-010

OCT 10 1990

SFP Item: Circuit Breaker

Find Number: CB-9, Panel TA

Criticality Category: 1S, 2

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SAA No: 09FT06-010, Rev. A

System/Area: EPS, Payload  
Canister Transporter  
PMN/  
Name: H70-0833/  
Transporter EPSNASA  
Part No: NoneMfg. Gould Inc..  
Part No: HE3B100Drawing/  
Sheet No: 79K15394/  
16

Function: Provides overload protection to the Environmental Control System (ECS)

Critical Failure Mode: Premature Trip (FMN 09FT06-010.002)

Cause: Internal part failure

Failure Effect: Loss of 60Hz power to the ECS. Eventual loss of capability 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:

Component Specifications:	Rated	Actual
AC Voltage	600	480

- 0 Breaker is extra heavy duty, molded case (enclosed).

- 0 Breaker set to trip at 100A and loaded at 50A.

- 0 Loss of ECS power due to breaker trip is detectable.

- 0 Breaker 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 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