

AUG 11 1988

Critical Item: Circuit Breaker

Find Number: CB2

Criticality Category: 1S

SAA No: 09G505-003

System/Area: ECS/SLF/SLS

NASA

PNM/ 570-0534/

Part No: N/A

Name: Portable Purge Unit

Mfg/ General Electric/Airpax

Drawing/

Part No: TED480V

Sheet No: 79K06061/1

Function: Protects control circuits from electrical overload.

Critical Failure Mode: Premature trip. FM No. 09G505-003.026

Failure Cause: Structural failure of internal piece part or failure of a discrete component within the device.

Failure Effect: Compressor shutdown and blower interlock stop blower, resulting in loss of purge to Orbiter compartments. Loss of ability to monitor purge air for leaks. Possible loss of life or vehicle during a hazardous condition such as leakage of hazardous fluids or gases.

#### Acceptance Rationale

##### Design:

- o Meets or exceeds the design requirements of KSC-SPEC-E-0026A.
  - Molded-case type
  - manually operated
  - trip free
  - inverse time actuated
  - thermal overload
  - rated load - 15 A
  - estimated operating load - 10 A

##### Test:

- o The OMR50, File VI will require overcurrent trip test after a fault.
- o The purge unit is powered up and verified operational approximately three hours prior to Orbiter landing per OMI 50028 and 50026.

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Circuit Breaker CB2, (Continued)

Inspection:

- o The OMRSD, File VI will require inspection for indication of arcing or overheating annually.

Failure History:

- o No PRACA failure history identified.
- o No GIDEP failure history identified.

Operational Use:

- o There is nothing that can be done immediately to mitigate the effect of the failure.
- o The purge unit is monitored for any indication of malfunction. If any anomalies are observed, appropriate steps are taken to repair or replace the item.

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