

ETSO-C178a

ED Decision 2022/018/R

AIRCRAFT CIRCUIT BREAKERS

1 Applicability

This ETSO provides the requirements that aircraft circuit breakers that are designed and manufactured on or after the date of this ETSO must meet in order to be identified with the applicable ETSO marking.

2 Procedures

2.1 General

The applicable procedures are detailed in CS-ETSO, [Subpart A](#).

2.2 Specific

None.

3 Technical conditions

3.1 Basic

3.1.1 Minimum Performance Standard

The applicable standards are those provided in Table 1 for the intended equipment class:

Table 1 — Equipment class standards

Equipment Class	Equipment Type	Minimum Performance Standards
1	Alternating Current (AC) Arc Fault Circuit Breakers	SAE Aerospace Standard (AS) AS5692A, 'ARC Fault Circuit Breaker (AFCB), Aircraft, Trip-Free Single Phase and Three Phase 115 VAC, 400 Hz - Constant Frequency', dated December 2009
2	Direct Current (DC) Arc Fault Circuit Breakers	SAE Aerospace Standard (AS) AS6019, 'ARC Fault Circuit Breaker (AFCB), Aircraft, Trip-Free 28 VDC', dated June 2012
3	AC or DC Thermal Circuit Breakers	SAE Aerospace Standard (AS) AS58091A, 'Circuit Breakers, Trip-Free, Aircraft General Specification For', dated May 2012

3.1.2 Environmental Standard

See CS-ETSO, [Subpart A](#), paragraph 2.1.

3.1.3 Software

See CS-ETSO, [Subpart A](#), paragraph 2.2.

3.1.4 Airborne Electronic Hardware

See CS-ETSO, [Subpart A](#), paragraph 2.3.

3.2 Specific

3.2.1 Failure Condition Classification

See CS-ETSO, [Subpart A](#), paragraph 2.4.

4 Marking

4.1 General

See CS-ETSO, [Subpart A](#), paragraph 1.2.

4.2 Specific

The class of the equipment shall be legibly and permanently marked.

5 Availability of referenced documents

See CS-ETSO, [Subpart A](#), paragraph 3.

[Amdt ETSO/8]

[Amdt ETSO/17]