Aerospace series - Cables, electrical, aircraft use - Test methods - Part 605: Wet short circuit test

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NATIONAL FOREWORD

See Eesti standard EVS-EN 3475-605:2018 sisaldab Euroopa standardi EN 3475-605:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 3475-605:2018 consists of the English text of the European standard EN 3475-605:2018.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 10.01.2018.	Date of Availability of the European standard is 10.01.2018.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 49.060

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 3475-605

January 2018

ICS 49.060

Supersedes EN 3475-605:2010

English Version

Aerospace series - Cables, electrical, aircraft use - Test methods - Part 605: Wet short circuit test

Série aérospatiale - Câbles électriques à usage aéronautique - Méthodes d'essais - Partie 605 : Essai de court-circuit humide

Luft- und Raumfahrt - Elektrische Leitungen für Luftfahrtverwendung - Prüfverfahren - Teil 605: Verhalten nach Kurzschluss, feucht

This European Standard was approved by CEN on 28 August 2017.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Ref. No. EN 3475-605:2018 E

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European foreword

This document (EN 3475-605:2018) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2018 and conflicting national standards shall be withdrawn at the latest by July 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 3475-605:2010.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies a method for appraising the behaviour of cable insulation subjected to an electric arc initiated and maintained by a contaminating fluid.

This European Standard shall be used together with EN 3475-100.

The primary aim of this test is:

— to produce, in a controlled fashion, continuous failure effects which are representative of those which may occur in service when a typical cable bundle is damaged and subjected to aqueous fluid contamination such that electrical arcing occurs between cables;

— to examine the aptitude of the insulation to track to propagate electric arc to the electrical origin.

Originally defined for 115 Vac network, this test also proposes conditions for 230 Vac network. Unless otherwise specified in product standard, only 115 Vac conditions shall be satisfied.

Six (6) levels of prospective fault current have been specified for concerned cable sizes (see Clause 7). It is generally agreed that larger sizes need not be assessed since the short-circuit phenomenon becomes dominant at low line impedances.

Unless otherwise specified in the technical/product standard sizes 002, 006 and 020 cable shall be assessed.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 2350, *Aerospace series — Circuit breakers — Technical specification*

EN 3197, *Aerospace series — Design and installation of aircraft electrical and optical interconnection systems*

EN 3475-100, *Aerospace series — Cables, electrical, aircraft use — Test methods — Part 100: General*

A-A-52083, *Tape, lacing and tying, glass* [1)]

3 Specimen requirements

Cables to be tested shall be of traceable origin and shall have passed the high voltage dielectric test defined in the product standard.

4 Preparation of specimen

4.1 Cut seven (7) separate lengths of approximately 0,5 m consecutively from one (1) length of cable, and strip one of the ends of insulation to permit electrical connection. Clean each length of cable with a clean cloth moistened with propan-2-ol (isopropyl alcohol) fluid.

1) Published by: Department of Defense Industrial Supply Center, ATTN: DISC-BBEE, 700 Robbins Avenue, Philadelphia, PA 19111-5096 – USA.