STN	Letectvo a kozmonautika Elektrické káble v letectve Skúšobné metódy Časť 603: Odolnosť proti vypaľovaniu stopy oblúkom vo vlhku	STN EN 3475-603
		31 1811

Aerospace series - Cables, electrical, aircraft use - Test methods - Part 603: Resistance to wet arc tracking

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/18

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# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

## EN 3475-603

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Supersedes EN 3475-603:2011

**English Version** 

### Aerospace series - Cables, electrical, aircraft use - Test methods - Part 603: Resistance to wet arc tracking

Série aérospatiale - Câbles électriques à usage aéronautique - Méthodes d'essais - Partie 603: Résistance à l'amorçage et à la propagation d'arc électrique, essai humide Luft- und Raumfahrt - Elektrische Leitungen für Luftfahrtverwendung - Prüfverfahren - Teil 603: Lichtbogenfestigkeit, feucht

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

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

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#### EN 3475-603:2018 (E)

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### **European foreword**

This document (EN 3475-603:2018) 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of an identical text or by endorsement, at the latest by July 2018 and conflicting national standards shall be withdrawn at the latest by July 2018.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 3475-603:2011.

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.

#### EN 3475-603:2018 (E)

#### 1 Scope

This European Standard specifies a method of assessing the behaviour of cable insulation subject to an electric arc initiated and maintained by contaminating fluid along the surface of the insulation.

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. Electrical arcing occurs along the surface of the insulation between damage sites on adjacent 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 agreed that sizes larger than 051 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

EN 3475-302, Aerospace series — Cable, electrical, aircraft use — Test methods — Part 302: Voltage proof test

A-A-52083, Tape, lacing and tying, glass 1)

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