



NSAI
Standards

Irish Standard
I.S. EN 3475-603:2011

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

I.S. EN 3475-603:2011

Incorporating amendments/corrigenda/National Annexes issued since publication:
EN 3475-603:2011/AC:2011

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I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWIFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

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English version
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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 corrigendum becomes effective on 23 November 2011 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 23 novembre 2011 pour incorporation dans les trois versions linguistiques officielles de la EN.

Die Berichtigung tritt am 23. November 2011 zur Einarbeitung in die drei offiziellen Sprachfassungen der EN in Kraft.



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COMITÉ EUROPÉEN DE NORMALISATION
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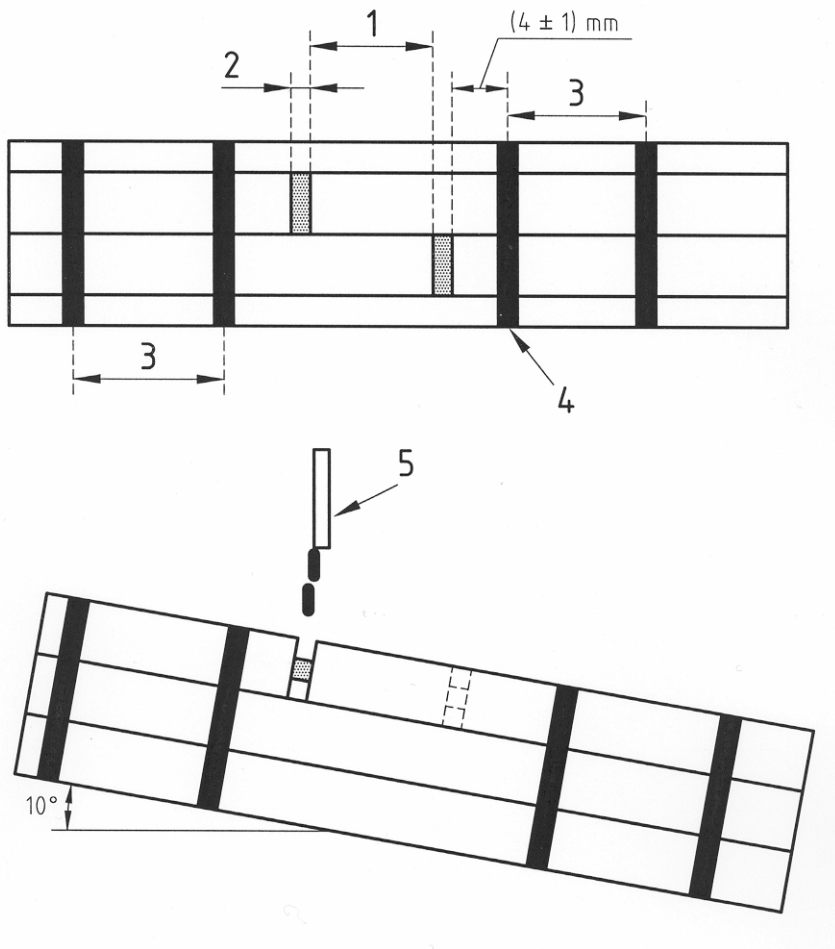
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1 Modification to Clause 4

Replace Figure 2 with:



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 20 February 2010.

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.

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Foreword

This document (EN 3475-603:2011) 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 document supersedes EN 3475-603:2007.

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 November 2011, and conflicting national standards shall be withdrawn at the latest by November 2011.

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

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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 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; and
- 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 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 referenced documents are indispensable for the application of this document. 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 — Cables, electrical, aircraft use — Test methods — Part 302: Voltage proof test*

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.

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

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