ICS 49.060 SLOVENSKÁ TECHNICKÁ NORMA Máj 2022

STN	**Letectvo a kozmonautika Elektrický systém Analýza zaťaženia**	**STN EN 3830 31 1910**

Aerospace series - Electrical system - Load analysis

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. 04/22

Obsahuje: EN 3830:2022

134728

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 3830

February 2022

ICS 49.060

English Version

Aerospace series - Electrical system - Load analysis

Série aérospatiale - Réseau électrique - Bilan électrique

Luft- und Raumfahrt - Elektrisches Bordnetz - Energiebilanz

This European Standard was approved by CEN on 7 February 2020.

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

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Ref. No. EN 3830:2022 E

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European foreword

This document (EN 3830:2022) 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 document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2022, and conflicting national standards shall be withdrawn at the latest by August 2022.

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Introduction

This document is applicable to a.c. and d.c. aircraft electrical power systems in accordance with EN 2282 and has been prepared under consideration of MIL-E-7016F. It describes the methods and procedures necessary for the preparation of an electrical load analysis.

1 Scope

This document defines the method to establish an electrical load analysis which is used to compare the supply capacity of an electrical power generation system with the power demand of the connected electrical utilisation equipment.

It shall prove that the power sources are capable of supplying these loads under all electrical power system states and aircraft operating conditions and that specified growth capacity for future requirements is ensured.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 2282, *Aerospace series — Characteristics of aircraft electrical supplies*