



BSI Standards Publication

Aircraft — Auto-transformer rectifier units (ATRU) — General requirements

National foreword

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The UK participation in its preparation was entrusted to Technical Committee ACE/6, Aerospace avionic electrical and fibre optic technology.

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Foreword

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This document was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 1, *Aerospace electrical requirements*.

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Introduction

This document provides general requirements for auto-transformer rectifier units (ATRU) installed in aircrafts.

ATRU can convert electrical power from alternating current (AC) to direct current (DC) by using multipulse phase shifting auto-transformers to provide cancellation of certain harmonic currents.

ATRU have been shown to be the most cost-effective harmonic solution in aviation industry with minimum mass, simpler structure and higher reliability, compared with conventional harmonic suppression devices. ATRU are emerging among aircraft application, especially in more electrical aircraft and all electrical aircraft power supply system.

There are no International Standards on ATRU, and standardization is needed for aircraft electrical systems. This document provides the basis for manufacturers and users that develop and utilize ATRU installed in aircrafts.