

Australian Standard™

**Electrical installations—Surface mines
and associated processing plant**

Part 2: General protection requirements

This Australian Standard was prepared by Committee EL-033, Electrical Installations for Outdoor Sites Under Heavy Conditions. It was approved on behalf of the Council of Standards Australia on 28 July 2004.
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The following are represented on Committee EL-033:

Australian Electrical and Electronic Manufacturers Association
Construction and Mining Equipment Association of Australia
Department of Mineral Resources NSW
Department of Natural Resources and Mines (Qld)
Minerals Council of Australia
Mining Interests
Ministry of Economic Development (New Zealand)
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Part 2: General protection requirements

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PREFACE

This Standard was prepared by Standards Australia Committee EL-033, Electrical Installations for Outdoor Sites Under Heavy Conditions, to supersede AS 3007.2—1987 which was based on IEC 60621-2:1987, *Electrical installations for outdoor sites under heavy conditions (including open-cast mines and quarries)*, Part 2: *General protection requirements*.

This Standard was produced from AS 3007.2—1987. Even though much of the technical content is sourced from IEC 60621-2, this Standard is not equivalent to IEC 60621-2. It has been updated to align with Standards Australia style including the following:

- (a) Numbering of all clauses.
- (b) The addition of lists of referenced Standards.
- (c) Updating of references to other Standards.

This Standard is Part Two of a series that includes the following:

AS

3007	Electrical installations—Surface mines and associated processing plant
3007.1	Part 1: Scope and definitions
3007.2	Part 2: General protection requirements (this Standard)
3007.3	Part 3: General requirements for equipment and ancillaries
3007.4	Part 4: Additional requirements for specific applications
3007.5	Part 5: Operating requirements

The object of the AS 3007 series is to specify requirements for the installation and operation of electrical apparatus and systems in open-cut mines, quarries, stockpiles and similar installations to provide for the safety of persons, livestock and property.

AS 3007.1 outlines the scope of the AS 3007 series and provides definitions for some of the terms used. AS 3007.2 (this Standard) specifies measures which are required for protection against electric shock in normal service from direct contact with live parts, for protection against electric shock from parts which may become live in the event of a fault (indirect contact), and for protection against the effects of overcurrent resulting from overload or short-circuit conditions. AS 3007.3 prescribes general requirements for equipment and ancillaries associated with the electrical installation. AS 3007.4 sets out the requirements which are specific to particular installations, together with exemptions from the general requirements of AS 3007.2 and 3, which apply for such installations. AS 3007.5 sets out the normal operating procedures which should be carried out to ensure the safety of personnel.

The AS 3007 series recognizes several types of power supply system and specifies the protective measures which are necessary for each system. Requirements for protection of persons from indirect contact are based on the concept of permissible voltage versus time limits, which take into account the pathophysiological effects of electric current passing through the human body, typical industry conditions, and the probability of persons being in contact with the plant.

The terms ‘normative’ and ‘informative’ are used to define the application of the appendix to which they apply. A normative appendix is an integral part of a standard, whereas an informative appendix is only for information and guidance.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND REFERENCED DOCUMENTS	
1.1 SCOPE	4
1.2 REFERENCED DOCUMENTS	4
SECTION 2 PROTECTION AGAINST DIRECT CONTACT	
2.1 INTRODUCTION	5
2.2 GENERAL REQUIREMENTS	5
2.3 COMPLETE PROTECTION BY MEANS OF BARRIERS OR ENCLOSURES	5
2.4 COMPLETE PROTECTION BY INSULATION OF LIVE PARTS	8
2.5 PARTIAL PROTECTION BY PLACING LIVE PARTS OUT OF REACH	8
2.6 PARTIAL PROTECTION BY THE PROVISION OF OBSTACLES	8
2.7 MINIMUM DISTANCES TO BE OBSERVED IN OPERATING AND MAINTENANCE GANGWAYS FOR INDOOR INSTALLATIONS	9
2.8 MINIMUM CLEARANCES FOR OUTDOOR INSTALLATIONS	9
SECTION 3 PROTECTION AGAINST INDIRECT CONTACT—A.C.	
3.1 INTRODUCTION	16
3.2 GENERAL	16
3.3 TN, TT AND IT SYSTEMS DESCRIPTION	18
3.4 PROTECTIVE MEASURES FOR TN SYSTEMS	19
3.5 PROTECTIVE MEASURES FOR TT SYSTEMS	26
3.6 PROTECTIVE MEASURES FOR IT SYSTEMS	27
3.7 REQUIREMENTS FOR EARTH FAULT CURRENT LIMITATION DEVICES	28
3.8 EARTHING ARRANGEMENTS AND PROTECTIVE CONDUCTORS	29
SECTION 4 PROTECTION AGAINST OVERCURRENT	
4.1 INTRODUCTION	38
4.2 GENERAL RULE	38
4.3 NATURE OF PROTECTIVE DEVICES	38
4.4 AUTOMATIC INTERRUPTION—PROTECTION AGAINST OVERCURRENT DUE TO OVERLOAD	39
4.5 AUTOMATIC INTERRUPTION—PROTECTION AGAINST SHORT CIRCUITS	40
4.6 COORDINATION OF OVERLOAD AND SHORT-CIRCUIT PROTECTION	42
4.7 LIMITATION OF OVERCURRENT BY CHARACTERISTICS OF SUPPLY OR LOAD	43
SECTION 5 SELECTION OF PROTECTIVE DEVICES AND PROTECTION SYSTEMS	
5.1 INTRODUCTION	44
5.2 BASIC REQUIREMENTS	44
5.3 SELECTION PROCEDURE	44
5.4 DISCRIMINATION BETWEEN PROTECTIVE DEVICES	45
APPENDICES	
A SELECTION OF FACTOR k FOR CALCULATING THE MINIMUM CROSS-SECTIONAL AREA OF PROTECTIVE CONDUCTORS (See Item (a) of Clause 3.8.5.2.2)	48
B DESCRIPTION OF CERTAIN TYPES OF PROTECTIVE DEVICES AND THEIR USES	51

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