

AS 1418.12—1991

Reconfirmed 2016

Australian Standard[®]

**Cranes (including hoists and
winches)**

Part 12: Crane collector systems

This Australian Standard was prepared by Committee ME/5, Cranes. It was approved on behalf of the Council of Standards Australia on 7 October 1990 and published on 28 March 1991.

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This Standard was issued in draft form for comment as DR 89182..

STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 1418.12—1991

Cranes (including hoists and winches)
Part 12: Crane collector systems

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NOTES

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Part 12: Crane collector systems

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PREFACE

This Standard was prepared by the Standards Australia Committee on Cranes.

Although this Standard forms part of AS 1418, SAA Crane Code, it is an interdisciplinary document with no equivalent ISO or IEC Standards.

In the preparation of this Standard, AS 2692, *Busbar trunking systems (busway)*, was used as the basic document. In addition, the following Australian Standards were considered:

AS 1136.1 *Low voltage switchgear and controlgear assemblies, Part 1: General requirements*

AS 3650 *Low voltage switchgear and controlgear—Common requirements*

Cognizance was also taken of current IEC and VDE Standards, and assistance is hereby acknowledged.

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STANDARDS AUSTRALIA

Australian Standard

Cranes (including hoists and winches)

Part 12: Crane collector systems

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard specifies requirements for crane collector systems incorporating a sliding or rolling contact device, referred to herein as 'CCS', intended for use on—

- (a) alternating current systems, the rated voltage of which is greater than 32 V and does not exceed 1000 V, at frequencies from 25 Hz to 60 Hz; and
- (b) direct current systems, the rated voltage of which is greater than 115 V and does not exceed 500 V.

The Standard does not cover direct-connected systems such as slip rings, cable reelers or flexible cable systems.

NOTES:

- 1 Guidance on the installation checks of CCS is provided in Appendix A.
- 2 Appendix B shows the typical components of a CCS, and cross-sections of enclosed CCS.

1.2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

- 1418 SAA Crane Code
 - 1418.1 Part 1: General requirements
 - 1852 International electrotechnical vocabulary
 - 1852(441) Chapter 441—Switchgear, controlgear and fuses
 - 1931 High voltage testing techniques
 - 1931.1 Part 1: General definitions, test requirements, test procedures and measuring devices
 - 1939 Classification of degrees of protection provided by enclosures for electrical equipment
 - 2395 Terminals for switchgear assemblies for alternating voltages above 1 kV
 - 2420 Fire test methods for solid insulating materials and non-metallic enclosures used in electrical equipment
 - 2549 Cranes—Glossary of terms
 - 2752 Preferred numbers and their use
 - 2768 Electrical insulating materials—Evaluation and classification based on thermal endurance
 - 3000 SAA Wiring Rules
 - 3100 Approval and test specification—Definitions and general requirements for electrical materials and equipment
 - 3121 Approval and test specification for insulating mouldings
- IEC
- 112 Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions

1.3 DEFINITIONS For the purpose of this Standard, the definitions given in AS 1852(441), AS 2549, and AS 3000, and those below apply.

1.3.1 Anchor clamp—a clamp which provides a fixed connection between the support bracket and the conductor bar or its cover (or both) to control the direction of longitudinal expansion.

1.3.2 Collector—an electrical device designed, when moved along the conductor bar, to provide continuous electrical contact between the conductor bar and the crane electrical system.

1.3.3 Conductor bar—a fixed conductor (which may be either rigid or flexible) for the provision of electrical power to the crane, and along which the collector moves.

1.3.4 Enclosed conductor bar—a conductor bar which is enclosed in such a manner as to provide a degree of protection of at least IP2X in accordance with AS 1939.

1.3.5 Hanger clamp—a clamp for attaching the conductor bar to the support bracket or other supporting structure.