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CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references	7
3 Terms and definitions	7
4 Symbols and abbreviations.....	7
5 Types of tap-changer.....	8
5.1 General	8
5.2 On-load tap-changers.....	8
5.3 Off-circuit tap-changers	15
5.4 Liquid-immersed tap-changers	15
5.5 Dry-type tap-changers	16
5.6 Other types	17
5.7 Protective devices	18
6 Selection of tap-changers.....	21
6.1 General	21
6.2 On-load tap-changers.....	22
6.3 Off-circuit tap-changers.....	27
7 Location of liquid-immersed tap-changers.....	29
7.1 Tap selectors	29
7.2 Diverter and selector switches.....	29
8 Fittings	29
8.1 Valves, air-release vents and liquid sampling devices	29
8.2 Liquid level gauges	29
8.3 Low liquid level alarms	30
8.4 Nameplate and other plates.....	30
8.5 Devices to aid maintenance.....	30
8.6 Dehydrating breathers.....	30
9 Field service (operation, maintenance and monitoring).....	30
9.1 Operation	30
9.2 Maintenance.....	32
9.3 Monitoring in service	32
10 Information to be provided by the transformer manufacturer	34
10.1 Information required at the enquiry or order stage for an on-load tap-changer	34
10.2 Information required with enquiry or order for off-circuit tap-changers	36
10.3 Documentation	36
11 Protection and safety.....	37
11.1 Protection.....	37
11.2 Safety aspects.....	37
11.3 Immersing medium	37

Figure 1 – External separate selector and diverter compartments (for mounting on the end or side of the transformer)..... 9

Figure 2 – External mounted selector switch tap-changer (for mounting on the end or side of the transformer)..... 10

Figure 3 – External mounted in-tank with separate barrier board..... 10

Figure 4 – In-tank separate selector and diverter switch 12

Figure 5 – In-tank selector switch tap-changer 13

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

TAP-CHANGERS –

Part 2: Application guide

FOREWORD

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International Standard IEC 60214-2 has been prepared by IEC technical committee 14: Power transformers.

This standard cancels and replaces IEC 60542 (1976) and its amendment 1 (1988). This first edition constitutes a technical revision of that standard.

The text of this standard is based on the following documents:

FDIS	Report on voting
14/490/FDIS	14/492/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

IEC 60214 consists of the following parts, under the general title *Tap-changers*:

Part 1: Performance requirements and test methods

Part 2: Application guide

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

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INTRODUCTION

The recommendations in this application guide represent advice to the tap-changer manufacturer and purchaser.

It is stressed that the responsibility for the correct application of the fully assembled tap-changers in connection with the transformer lies with the manufacturer of the transformer.

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TAP-CHANGERS –

Part 2: Application guide

1 Scope

This part of IEC 60214 is intended to assist in the selection of tap-changers designed in accordance with IEC 60214-1 for use in conjunction with the tapped windings of transformers or reactors. It is also intended to assist in understanding the various types of tap-changers and their associated equipment available. The application guide covers on-load tap-changers (resistor and reactor types) and off-circuit tap-changers.

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.

IEC 60076-1:1993, *Power transformers – Part 1: General*
Amendment 1(1999)¹

IEC 60076-3:2000, *Power transformers – Part 3: Insulation levels, dielectric tests and external clearances in air*

IEC 60076-5:2000, *Power transformers – Part 5: Ability to withstand short circuit*

IEC 60076-11:2004, *Power transformers – Dry-type transformers*

IEC 60214-1:2003, *Tap-changers – Part 1: Performance requirements and test methods*

IEC 60296:2003, *Fluids for electrotechnical applications – Unused mineral insulating oils for transformers and switchgear*

IEC 60354:1991, *Loading guide for oil-immersed power transformers*

IEC 60599:1999, *Mineral oil-impregnated electrical equipment in service – Guide to the interpretation of dissolved and free gases analysis*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60214-1 apply.

4 Symbols and abbreviations

DGA Dissolved gas analysis
HVDC High-voltage direct current
PST Phase-shifting transformer

¹ There exists a consolidated edition 2.1 (2000) that includes edition 2.0 and its amendment.