

Australian Standard™

Instrument transformers

Part 5: Capacitor voltage transformers



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This Australian Standard was prepared by Committee EL-013, Measurement and Protection Transformers. It was approved on behalf of the Council of Standards Australia on 25 November 2003 and published on 30 January 2004.

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Part 5: Capacitor voltage transformers

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PREFACE

This Standard was prepared by the Standards Australia Committee EL-013, Measurement and Protection Transformers to partially supersede AS 1243—2982 for capacitor voltage transformers one year after publication. During this period, it is anticipated that regulatory authorities will approve current transformers to either Standard. AS 1243—1982 will continue to apply to three-phase voltage transformers only.

The objective of this Standard is to provide users and manufacturers of capacitor voltage transformers with definitions of terms, safety requirements, methods of specifying performance and methods of test.

This Standard is Part Five of a series covering instrument transformers. The series consists of the following Standards:

AS

- 60044 Instrument transformers
- 60044.1 Part 1: Current transformers
- 60044.2 Part 2: Single-phase inductive voltage transformers
- 60044.3 Part 3: Combined transformers
- 60044.5 Part 5: Capacitor voltage transformers (this Standard)

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

CONTENTS

Clause	<i>Page</i>
1 Scope.....	1
2 Normative references	1
3 Definitions.....	3
3.1 General definitions	3
3.2 Capacitor voltage divider definitions	6
3.3 Electromagnetic unit definitions	8
3.4 Carrier-frequency accessories definitions	9
4 General requirements	9
5 Service conditions	9
5.1 Normal service conditions	9
5.2 Special service conditions	11
5.3 System earthing	12
6 Ratings.....	12
6.1 Standard values of rated frequency	12
6.2 Standard values of rated voltages	12
6.3 Standard values of rated output.....	12
6.4 Standard values of rated voltage factor	13
6.5 Limits of temperature rise	13
7 Design requirements	15
7.1 Insulation requirements	15
7.2 Other insulation requirements.....	16
7.3 Short-circuit withstand capability	20
7.4 Ferro-Resonance	20
7.5 RIV and TO requirements	21
7.6 Mechanical requirements	22
7.7 Tightness of capacitor voltage divider and electromagnetic unit.....	23
8 Classification of test	23
8.1 Type tests	23
8.2 Routine tests	26
8.3 Special tests	26
8.4 Test sequence for one or two units.....	26
9 Type Test	26
9.1 Temperature-rise test	26
9.2 Capacitance and $\tan\delta$ measurement at power-frequency	27
9.3 Short-circuit withstand capability test	28
9.4 Impulse tests	29
9.5 Wet test for outdoor capacitor voltage transformer	30
9.6 Ferro-resonance tests	31
9.7 Tightness test of a liquid-filled electromagnetic unit.....	32
9.8 Accuracy tests	32
9.9 Transient response test.....	33
9.10 Radio interference voltage test.....	35

	<i>Page</i>
10 Routine tests	36
10.1 Tightness of the liquid-filled capacitor voltage divider	36
10.2 Power-frequency withstand test and measurement of capacitance, $\tan\delta$ and partial discharge	36
10.3 Verification of terminal markings	40
10.4 Power-frequency withstand tests on the electromagnetic unit	40
10.5 Ferro-resonance check	41
10.6 Accuracy check	41
11 Special Tests	42
11.1 Measurement of the transmission factor of high frequency overvoltages	42
11.2 Mechanical strength test	43
11.3 Determination of the temperature coefficient (T_C)	43
11.4 Tightness design test of capacitor units	43
12 Marking of the capacitor units	44
12.1 General	44
12.2 Marking	44
13 Terminal markings	44
13.1 General	44
13.2 Markings	44
14 Additional requirements for measuring capacitor voltage transformer	47
14.1 Accuracy class designation	47
14.2 Standard reference range of frequency	47
14.3 Standard accuracy classes	47
14.4 Limits of voltage error and phase displacement	47
14.5 Tests for accuracy	48
15 Additional requirements for protective capacitor voltage transformers	48
15.1 Accuracy class designation	48
15.2 Standard reference range of frequency	48
15.3 Standard accuracy classes	48
15.4 Limits of voltage error and phase displacement	49
15.5 Transient response	49
15.6 Requirements for secondary windings intended to produce a residual voltage	50
16 Rating plate	53
16.1 Markings of the rating plate	53
16.2 Example of a typical rating plate	55
17 Requirements for carrier - frequency accessories	56
17.1 General	56
17.2 Drain coil and voltage limitation device	56
17.3 Type tests	56
17.4 Routine tests	57
17.5 Marking of the rating plate	57
Annex A (normative) Typical diagram of a capacitor voltage transformer	58
Annex B (informative) Transient response of capacitor voltage transformer under fault conditions	60
Annex C (normative) High-frequency characteristics of capacitor voltage transformers	61
Bibliography	62

	<i>Page</i>
Figure 1 – Altitude correction factor for the insulation	11
Figure 2 – Altitude correction factor for the temperature rise.....	14
Figure 3 – Flow charts test sequence to be applied when performing the type test (figure 3a) and routine test (figure 3b).....	25
Figure 4 – Diagram of a capacitor voltage transformer for the transient response test using equivalent circuit method.....	34
Figure 5 – Series burden	35
Figure 6 – Pure resistance.....	35
Figure 7 – Test circuit.....	38
Figure 8 – Alternative circuit.....	38
Figure 9 – Example of balanced test circuit.....	39
Figure 10 – Example of calibration circuit.....	39
Figure 11 – Example of an error diagram of class 1 CVT for accuracy check with the equivalent circuit.....	42
Figure 12 – Single-phase transformer with a neutral primary terminal and a single secondary.....	45
Figure 13 – Single-phase transformer with a neutral primary terminal and with two secondaries.....	45
Figure 14 – Single-phase transformer with a neutral primary terminal and with two tapped secondaries.....	45
Figure 15 – Single-phase transformer with a neutral primary terminal, with one residual voltage winding and a single secondary.....	46
Figure 16 – Error diagram of a capacitor voltage transformer for accuracy classes 0,2, 0,5 and 1,0.....	48
Figure 17 – Transient response of a capacitor voltage transformer	49
Figure A.1 – Example of a diagram for a capacitor voltage transformer.....	58
Figure A.2 – Example of a diagram for a capacitor voltage transformer with carrier- frequency accessories	59
Table 1 – Rated ambient temperature categories.....	10
Table 2 – Standard values of rated voltage factors for accuracy and thermal requirements.....	13
Table 3 – Limits of temperature rise of windings	14
Table 4 – Standard insulation levels	16
Table 5 – Partial discharge test voltages and permissible levels	17
Table 6 – Creepage distance.....	20
Table 7a – Ferro-resonance requirements	21
Table 7b – Ferro-resonance requirements	21
Table 8 – Transmitted overvoltage requirements.....	22
Table 9 – Static withstand test loads.....	22
Table 10 – Test voltage for temperature rise test.....	27
Table 11 – Burden ranges for accuracy tests	33
Table 12 – Test voltages for units, stacks and complete capacitor voltage divider.....	37
Table 13 – Ferro resonance check.....	41
Table 14 – Accuracy check points (example).....	42
Table 15 – Modalities of application of the test loads to the line primary terminals.....	43
Table 16 – Limits of voltage error and phase displacement for measuring capacitor voltage transformers.....	47
Table 17 – Limits of voltage error and phase displacement for protective capacitor voltage transformers.....	49
Table 18 – Standard values	50
Table 19 – Rated secondary voltages for capacitor voltage transformers to produce a residual voltage.....	51
Table 20 – Marking of the rating plate.....	53

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STANDARDS AUSTRALIAN

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1 Scope

This PAS which is a part of International Standard IEC 60044 applies to new single phase capacitor voltage transformers connected between line and ground for system voltages $U_m \leq 72,5$ kV at power frequencies from 15 Hz to 100 Hz. They are intended to supply a low voltage for measurement, control and protective functions.

The capacitor voltage transformer can be equipped with or without carrier-frequency accessories for power line carrier-frequency (PLC) application at carrier frequencies from 30 kHz to 500 kHz.

The future standard that should supersede the present PAS will replace the IEC 60186 regarding capacitor voltage transformers.

Three standards formed the basis for this IEC-PAS 60044-5:

- IEC 60044-2; concerning inductive voltage transformers;
- IEC 60358, concerning coupling capacitors and capacitor dividers;
- IEC 60481, concerning coupling devices for power line carrier (PLC) systems.

The application measurement function includes both indication measuring and revenue measuring.

NOTE Diagrams of capacitor voltage transformer to which this document applies are given in figures A.1 and A.2.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this document. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However parties to agreements based on this document are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

References to international standards that are struck through in this clause are replaced by reference to Australian or Australian/New Zealand Standards that are listed immediately thereafter and identified by shading. Any Australian or Australian/New Zealand Standard that is identical to the International Standard it replaces is identified as such.

~~IEC 60028:1925, *International standard of resistance for copper*~~

~~IEC 60038:1983, *IEC Standard voltages*~~

AS 60038—2000, *Standard voltages*