



DPC: 16 / 30347768 DC

BSI Group Headquarters

389 Chiswick High Road London W4 4AL

Tel: + 44 (0)20 8996 9000

Fax: + 44 (0)20 8996 7400

www.bsigroup.com

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Responsible committee: PEL/33 Power capacitors

Interested committees:

Title: Draft BS EN 61921 Power capacitors: Low-voltage power factor correction banks

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

- i) has any issues related to 3rd party IPR, patent or copyright
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Responsible Committee Secretary: **Committee Service Centre (BSI)**
Direct tel: **020 8996 7009**
E-mail: **csc@bsigroup.com**

Introduction

This draft standard is based on European discussions in which the UK took an active part. Your comments on this draft are welcome and will assist in the preparation of the consequent British Standard. Comment is particularly welcome on national legislative or similar deviations that may be necessary.

Even if this draft standard is not approved by the UK, if it receives the necessary support in Europe, the UK will be obliged to publish the official English Language text unchanged as a British Standard and to withdraw any conflicting standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with reasons) or positive vote on this draft.

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- All comments submitted should be presented as given in the example below. Further information on submitting comments and how to obtain a blank electronic version of a comment form are available from the BSI website at: <http://drafts.bsigroup.com/>

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	(7)
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/ Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

**33/589/CDV****COMMITTEE DRAFT FOR VOTE (CDV)
PROJET DE COMITÉ POUR VOTE (CDV)**

Project number Numéro de projet		IEC 61921/Ed2	
IEC/TC or SC: TC 33 CEI/CE ou SC:		Secretariat / Secrétariat Italy	
☒ Submitted for parallel voting in CENELEC ☐ Soumis au vote parallèle au CENELEC	Date of circulation Date de diffusion 2016-08-12	Closing date for voting (Voting mandatory for P-members) Date de clôture du vote (Vote obligatoire pour les membres (P)) 2016-11-04	
Also of interest to the following committees Intéresse également les comités suivants		Supersedes document Remplace le document 33/588/RR	
Proposed horizontal standard Norme horizontale suggérée ☐ Other TC/SCs are requested to indicate their interest, if any, in this CDV to the TC/SC secretary Les autres CE/SC sont requis d'indiquer leur intérêt, si nécessaire, dans ce CDV à l'intention du secrétaire du CE/SC			
Functions concerned Fonctions concernées ☒ Safety Sécurité ☒ EMC CEM ☒ Environment Environnement ☒ Quality assurance Assurance qualité			

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RECIPIENTS OF THIS DOCUMENT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

Title : IEC 61921/Ed2: Power capacitors: Low-voltage power factor correction banks

Introductory note

At the last plenary meeting held in London on May 2014, TC 33 decided to go on with the revision of IEC 61921 and MT 21 was charged of this revision (see 33/568/RM).

**ATTENTION
IEC – CENELEC
PARALLEL VOTING**

The attention of IEC National Committees, members of CENELEC, is drawn to the fact that this Committee Draft for Vote (CDV) for an International Standard is submitted for parallel voting.
The CENELEC members are invited to vote through the CENELEC online voting system.

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CONTENTS

1			
2			
3	FOREWORD.....		4
4	1 Scope.....		6
5	2 Normative references		6
6	3 Terms and definitions		6
7	3.1 Low-voltage a.c. capacitor bank or power factor correction bank		6
8	3.2 Step of capacitor bank.....		7
9	3.3 Automatic reactive power controller.....		7
10	3.4 Transient inrush current I_t		7
11	3.5 Rated reactive power Q_N (of a capacitor bank).....		7
12	3.6 Maximum permissible current		7
13	4 Marking of a capacitor bank.....		7
14	5 Service conditions		8
15	6 Guide for design, installation, operation and safety		8
16	6.1 General.....		8
17	6.2 Design.....		8
18	6.3 Installation and operation		10
19	6.4 Safety		11
20	7 Design verification		12
21	7.1 General.....		12
22	7.2 Strength of material and parts		12
23	7.3 Verification of degree of protection		12
24	7.4 Verification of clearances and creepage distances		13
25	7.5 Protection against electric shock and integrity of protective circuits		13
26	7.6 Incorporation of switching devices and components		13
27	7.7 Internal electrical circuits and connections		13
28	7.8 Terminals for external conductors.....		13
29	7.9 Verification of dielectric properties		13
30	7.10 Verification of temperature-rise limits		13
31	7.11 Verification of short-circuit withstand strength		14
32	7.12 Electromagnetic compatibility		14
33	7.13 Verification of mechanical operation		14
34	8 Routine verification.....		14
35	8.1 General.....		14
36	8.2 Degree of protection of enclosures		14
37	8.3 Clearances and creepage distances		14
38	8.4 Protection against electric shock and integrity of protective circuits		15
39	8.5 Incorporation of built-in components.....		15
40	8.6 Internal electrical circuits and connections		15
41	8.7 Terminals for external conductors.....		15
42	8.8 Mechanical operation		15
43	8.9 Dielectric properties		15
44	8.10 Wiring, operational performance and function, including verification of rated		
45	output.....		16
46	Annex A (normative) Minimum and maximum cross-sections of copper conductors		
47	suitable for connections.....		

48	Annex B (informative) Formulae for capacitors and installations	18
49	Annex C (informative) Definition of similar designs for capacitor bank.....	20
50	Annex D (informative) Methods for connecting additional capacitors for performing	
51	temperature rise test	21
52	Bibliography	22
53		
54		

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**POWER CAPACITORS –
LOW-VOLTAGE POWER FACTOR CORRECTION BANKS**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61921 has been prepared by IEC technical committee 33: Power capacitors and their applications.

This second edition cancels and replaces the first edition published in 2003. It constitutes a technical revision.

This second edition includes the following significant technical changes with respect to the last edition of IEC 61921:

- numerous changes regarding verification methods to align with IEC 61439-1
- modification of marking
- add routine verification of rated output
- new Annex D with guidance on methods for temperature rise verification;
- update of normative references;
- general editorial review.

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

FDIS	Report on voting
33/XXX/FDIS	33/XXX/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.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website. At this date, the publication will be

- reconfirmed;

- 106 • withdrawn;
- 107 • replaced by a revised edition, or
- 108 • amended.

109

110 The National Committees are requested to note that for this document the stability date
111 is 2020

112 THIS TEXT IS INCLUDED FOR THE INFORMATION OF THE NATIONAL COMMITTEES AND WILL BE
113 DELETED AT THE PUBLICATION STAGE.

114

115

POWER CAPACITORS – LOW-VOLTAGE POWER FACTOR CORRECTION BANKS

1 Scope

This International Standard is applicable to low-voltage a.c. shunt capacitor banks intended to be used for power factor correction purposes, possibly equipped with a built-in switchgear and controlgear apparatus capable of connecting to or disconnecting from the mains part(s) of the bank with the aim to correct its power factor.

Low-voltage power factor correction banks if not otherwise indicated hereinafter and where applicable shall comply with the requirements of IEC 61439-1, and those of IEC 61439-2.

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 61439-1:2011, *Low-voltage switchgear and controlgear assemblies - Part 1: General rules*

IEC 61439-2:2011, *Low-voltage switchgear and controlgear assemblies - Part 2: Power switchgear and controlgear assemblies*

IEC 60831-1:2014, *Shunt power capacitors of the self-healing type for a.c. systems having a rated voltage up to and including 1 000 V – Part 1: General – Performance, testing and rating – Safety requirements – Guide for installation and operation*

IEC 60931-1:1996, *Shunt power capacitors of the non-self-healing type for a.c. systems having a rated voltage up to and including 1 000 V – Part 1: General – Performance, testing and rating – Safety requirements – Guide for installation and operation*

IEC 61642: 1997, *Industrial a.c. networks affected by harmonics – Application of filters and shunt capacitors.*

3 Terms and definitions

For the purpose of this document, the following definitions, together with the definitions found in IEC 61439-1, IEC 60831-1 and IEC 60931-1 apply.

3.1 Low-voltage a.c. capacitor bank or power factor correction bank

Combination of one or more low-voltage capacitor units together with associated switching devices and control, measuring, signalling, protective, regulating equipment, etc., completely assembled under the responsibility of the assembly Manufacturer with all the internal electrical and mechanical interconnections and structural parts. The capacitor bank can be fixed, manually switched or automatically controlled through the use of a power factor controller.

NOTE 1 The components of switchgear and controlgear of the automatic bank may be electromechanical or electronic.