

**Tabelle X.2 – Verweisliste zu den Bildern**

IEC 60115-8:2009 2. Ausgabe Bild	IEC 60115-8:202X 3. Ausgabe Bild	Anmerkungen
1	1	
2	3	
3	5	
4	7	
5	8	
6	9	

**Tabelle X.3 – Verweisliste zu den Tabellen**

IEC 60115-8:2009 2. Ausgabe Tabelle	IEC 60115-8:202X 3. Ausgabe Tabelle	Anmerkungen
1a	1	
1b	3	
2	11	
3a	10	in eine einzige Tabelle zusammengeführt
3b		
4	9	
5	5	die Maße für Lötflächen wurden nach Bauart (RR, RT und RC) aufgeteilt
	6	
	7	
6	12	
7a	13	der Prüfplan für die Bauartanerkennung wurde für losweise und periodische Prüfung in eine einzige Tabelle zusammengeführt
7b		

## Literaturhinweise

IEC 60027-1, *Letter symbols to be used in electrical technology – Part 1: General*

IEC 60063, *Preferred number series for resistors and capacitors*

IEC 60068-2-1, *Environmental testing – Part 2-1: Tests - Tests A: Cold*

IEC 60068-2-2, *Environmental testing – Part 2-2: Tests - Tests B: Dry heat*

IEC 60068-2-13, *Environmental testing – Part 2-13: Tests - Test M: Low air pressure*

IEC 60068-2-14, *Environmental testing – Part 2-14: Tests - Test N: Change of temperature*

IEC 60068-2-21, *Environmental testing – Part 2-21: Tests - Test U: Robustness of terminations and integral mounting devices*

IEC 60068-2-30, *Environmental testing – Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)*

IEC 60068-2-45, *Environmental testing – Part 2-45: Tests - Test Xa and guidance: Immersion in cleaning solvents*

IEC 60068-2-78, *Environmental testing – Part 2-78: Tests - Test Cab: Damp heat, steady state*

IEC 60195, *Method of measurement of current noise generated in fixed resistors*

IEC 60286-2, *Packaging of components for automatic handling - Part 2: Packing of components with unidirectional leads on continuous tapes*

IEC 60440, *Method of measurement of non-linearity in resistors*

IEC 60695-11-5, *Fire hazard testing – Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance*

IEC 60717, *Method for the determination of the space required by capacitors and resistors with unidirectional terminations*

IEC 61191-1, *Printed board assemblies – Part 1: Generic specification – Requirements for soldered electrical and electronic assemblies using surface mount and related assembly technologies*

IEC 61191-3, *Printed board assemblies – Part 3: Sectional specification – Requirements for through-hole mount soldered assemblies*

IEC 61192-1:2003, *Workmanship requirements for soldered electronic assemblies - Part 1: General*

Note to entry IEC 61192-1:2003 has been withdrawn in 2018.

IEC 61192-3:2002, *Workmanship requirements for soldered electronic assemblies - Part 3: Through-hole mount assemblies*

Note to entry IEC 61192-3 has been withdrawn in 2018.

IEC 61340-3-1, *Methods for simulation of electrostatic effects – Human body model (HBM) – Component testing*

IEC 80000 (all parts), *Quantities and units*

**E DIN EN 60115-8:2021-03**

IECQ 03-3, *IEC Quality Assessment System for Electronic Components (IECQ) – Rules of Procedure – Part 3: IECQ Approved Component Products, Related Materials & Assemblies Scheme*

IECQ 03-3-1, *IEC Quality Assessment System for Electronic Components (IECQ) – Rules of Procedure – Part 3-1: IECQ Approved Component Products, Related Materials & Assemblies Scheme, IECQ Approved Component – Technology Certification (IECQ AC-TC)*

ISO 3, *Preferred numbers – Series of preferred numbers*

ISO 17, *Guide to the use of preferred numbers and of series of preferred numbers*

ISO 497, *Guide to the choice of series of preferred numbers and of series containing more rounded values of preferred numbers*

ISO 2533, *Standard atmosphere*

ISO 80000 (all parts), *Quantities and units*

IPC A-610, *Acceptability of electronic assemblies*

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### FIXED RESISTORS FOR USE IN ELECTRONIC EQUIPMENT –

#### Part 8: Sectional specification: Fixed surface mount resistors

#### FOREWORD

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International Standard IEC 60115-8 has been prepared by IEC technical committee 40:  
Capacitors and resistors for electronic equipment.

This third edition cancels and replaces the second edition, published in 2009, and it  
constitutes a technical revision.

This edition contains the following significant technical changes with respect to the previous  
edition:

- 197 a) the definitions of product technologies and product classification levels of the generic  
198 specification, IEC 60115 1:2020, have been adopted;
- 199 b) the new style of transverse (RT) resistors has been added in 3.1.5 and 4.2.2 to cover the  
200 resistors with wide terminals which has become common in market;
- 201 c) the recommended test boards in 5.2.2 has been revised to fit the demands from the  
202 market for higher rated power in resistors.



- 203 d) the 'period-pulse high-voltage overload test' of IEC 60115-1:2020, 8.3 has been adopted  
204 as default test method in 5.3.8, thereby replacing the legacy test 'periodic-pulse overload  
205 test' of IEC 60115-1:2020, 8.4;
- 206 e) the revised solderability test of IEC 60115-1:2020, 11.1 has been adopted in 5.3.21 and  
207 5.3.22;
- 208 f) the combined solvent resistance test of IEC 60115-1:2020, 11.3 has been adopted in  
209 5.3.24;
- 210 g) the 'endurance at room temperature test' of IEC 60115-1:2020, 7.2 has been adopted as  
211 an optional test in 5.4.1;
- 212 h) the 'single-pulse high-voltage overload test' of IEC 60115-1:2020, 8.2, applied with the  
213 pulse shape 10/700 in 5.3.7, is complemented with the optional alternative provided by the  
214 pulse shape 1,2/50 in 5.4.2;
- 215 i) climatic tests for 'operation at low temperature' of IEC 60115-1:2020, 10.2, and for 'damp  
216 heat, steady state, accelerated' of IEC 60115-1:2020, 10.4, have been adopted as  
217 optional tests in 5.4.4. and 5.4.5, respectively;
- 218 j) new guidance is provided in 6.2 on the presentation of stability requirements with their  
219 permissible absolute and relative deviations;
- 220 k) acceptance criteria for the visual inspection have been added in 6.5 and in Annex B;
- 221 l) visual inspection for the primary and proximity packaging has been added in 6.5.3 and in  
222 7.2
- 223 m) the periodical evaluation of termination plating has been added as a new topic of quality  
224 assessment in 9.8;
- 225 n) the revised test clause numbering of IEC 60115 1:2020 has been applied;
- 226 o) a normative Annex A has been moved from Annex B of the old version to stay in line with  
227 other sectional specifications;
- 228 p) an informative Annex C has been added to summarize workmanship requirements for the  
229 assembly. However, it is not applicable for general fixed surface mount resistors, so they  
230 are omitted but reserved in this document;
- 231 q) a normative Annex D has been moved from Annex A of the old version to stay in line with  
232 other sectional specifications;
- 233 r) an informative Annex E has been added to show a guide for optional and/or additional  
234 tests;
- 235 s) an informative Annex F has been added to show typical temperature rise of recommended  
236 test boards in the endurance test at the rated temperature 70 °C;
- 237 t) an informative Annex G has been added to explain why some recommended test boards  
238 have extremely wide copper patterns;
- 239 u) an informative Annex X has been added to show the cross reference for the prior revision  
240 of this document;

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

FDIS	Report on voting
40/XX/FDIS	40/XX/RVD

242  
243 Full information on the voting for the approval of this standard can be found in the report on  
244 voting indicated in the above table.

245 A list of all parts in the IEC 60115 series, published under the general title *Fixed resistors for*  
246 *use in electronic equipment*, can be found on the IEC website.

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

248 The committee has decided that the contents of this publication will remain unchanged until  
249 the stability date indicated on the IEC website under “http://webstore.iec.ch” in the data  
250 related to the specific publication. At this date, the publication will be

- 251 • reconfirmed;
- 252 • withdrawn;
- 253 • replaced by a revised edition, or
- 254 • amended.

255