



DOCUMENT CHANGE REQUEST

DCR number	1630	Changes required for:	General	Originator:	Steve Jeffery
Date:	2024/05/21	Date sent:	2024/01/25	Organisation:	ESCC Executive
Status:	IMPLEMENTED				

Title: Capacitor Filters C Type Feedthrough Electromagnetic Interference Suppression Non-Hermetically

Number: 3008/031 Issue: 4

Other documents affected:

Page:

All.

Paragraph:

Total reformat/re-write of ESCC Detail Specification 3008/031 issue 4 as part of the ongoing conversion of legacy ESA/SCC specifications to the ESCC format, as well as reflecting changes resulting from the conversion of ESCC Generic Specification No. 3008.

The layout, format and general content of 3008/031 issue 5 is based on other converted ESCC Detail Specifications, see the attached draft Detail specification that implements all the proposed changes:
3008031 draft 5A for DCR review.docx

The technical content of ESCC 3008/031 issue 5 remains closely based on the original ESCC 3008/031 issue 4 except as detailed herein.

Original wording:

See 3008/031 issue 4

Proposed wording:

Total reformat of this Detail Specification (one of a range of various ESCC Detail Specifications for capacitor filters under Generic Specification No. 3008) as part of the ongoing conversion to the ESCC format.

See below for summary of changes, also see attached the proposed 3008/031 issue 5.

Note: known support for active procurement against this specification includes the following Manufacturers:
• Exxelia Technologies.

Summary of changes to the current format, layout and content is as follows:

1) General

Rewording and restructure of various sections and paragraphs of the specification, plus other editorial changes including deletion of any redundant paragraphs and information, based on the layout and editorial content of other Detail Specifications already converted to ESCC format.

Specific amendments include:

2) Para 1.2 and Table 1(a), Component Type Variants and Range of Components Table, and Notes, are revised as follows:
• A "main table" consists of a listing of the available Type Variants by Case Description and Terminal Configuration, with

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other characteristics (Rated DC Voltage, etc.) included in two other tables (which are part of Note 1 to the main table).

- The Rated DC Voltage characteristic is clarified as being applicable up to +85°C. Column 2(b), showing values of "UR at +125°C" (effectively "rated – but de-rated – voltages"), is deleted.

3) Para 1.3 and Table 1(b), Maximum Ratings: The Note regarding the derating of Rated DC Voltage is revised.

4) Para 1.5 and Figure 2, Physical Dimensions:

- The pictorial representation of the internal fan lock-washer is corrected.
- Note 1 is re-designated as being applicable to ØF instead of dimensions C and D.
- Note 2 is deleted as redundant/repetition, as this information is only required to be included in the Robustness of Terminations paragraph.
- A new Note 2 is added which clarifies ØF (lead diameter including lead finish) applies to both leads.
- Note 3 is deleted due to an editorial change to the table of dimensions.
- Note 4 is re-numbered Note 3.

5) Para 4.2 Deviations from Generic Specification is revised as follows:

- Paras 4.2.4(a) and 4.2.5(a) are deleted (no longer necessary because no stand-alone 'External Visual Inspections' are required to be performed per Chart F4 of the Generic Specification).
- Para. 4.2.4(b) is deleted as it has been agreed that Accelerated Damp Heat shall be performed.
- Paras 4.2.4(c) and 4.2.5(b) are deleted (the deviation "Immersion: Not applicable" is no longer required. The Immersion test has always only been applicable to hermetically sealed components, and therefore the Generic Specification has been changed accordingly).
- New Deviation for Qualification and Periodic Testing added, which covers the required number of Insertion Loss test frequencies (4, where the Generic Spec specifies "... a minimum of five...").

6) Weight limit requirements are moved to the Component Type Variants paragraph.

7) Para 4.3.3, Robustness of Terminations: paragraph is re-worded for clarification purposes.

8) Para 4.6.1 and Table 2 (was "Electrical Measurements at Room Temperature", now "Room Temperature Electrical Measurements"):

- Voltage Drop Test Conditions are deleted as the applicable paragraph in the Generic Specification already defines this condition.
- Notes 1 and 3 of the AC Measurements table are re-numbered and re-written as Notes 2, 3 and 4 for clarification purposes. These Notes also take into account various changes from Charts II, III, IV & V to Charts F3 & F4.

9) Para 4.6.2 and Table 3 (was "Electrical Measurements at High and Low Temperatures", now "High and Low Temperatures Electrical Measurements"):

- Note 1 (which defines the sampling) is amended to "Measurements shall be performed on a sample of 5 components. In the event of any failure a 100% inspection may be performed."
- Note 2 is replaced by explanatory text, i.e. "Unless otherwise specified...".

10) Para 4.7.2 and Table 5(a) (was "Conditions for Burn-in", now "Burn-in Conditions"), Voltage Characteristic and Conditions: The actual Applied Voltages applicable to each Type Variant are now defined. This will avoid any confusion over "UR at +125°C" (which is a derated voltage and therefore can no longer be "Rated DC Voltage").

11) Para 4.8.4 and Table 5(b) (was "Conditions for Operating Life Tests", now "Operating Life Conditions"), Voltage Characteristic and Conditions: The actual Applied Voltages applicable to each Type Variant are now defined. This will avoid any confusion over "UR at +125°C" (which is a derated voltage and therefore can no longer be "Rated DC Voltage").



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12) Table 6 (Measurements and Inspections on Completion of Environmental Tests and at Intermediate Points and on Completion of Endurance Testing) is modified and incorporated into new Para "Intermediate and End-Point Electrical Measurements" (Para 2.7).

13) Appendix A is made applicable to Charts F3 and F4B and is also re-worded for clarification purposes.

Justification:

Part of the ongoing conversion of legacy ESA/SCC specifications to the ESCC format. Amendments are made to the format and presentation to be consistent with the various other ESCC Detail Specifications, already converted to ESCC format, as well as the current issue of ESCC Generic Specification No. 3008.

See also change details above for justification for specific items.

Attachments:

esc3008031iss5_draftb_for_dcr_review.docx

Modifications:

N/A

Approval signature:

Date signed:

2024-05-21