



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title: CAPACITORS, CERAMIC, TYPE II, HIGH CAPACITANCE, BASED ON CASE STYLES BR, CV, AND CH

Executive Member: ESA

Date: 06/08/2018

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Components (including series and families) submitted for Extension of Qualification Approval:

ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR
3001/030	01 up to 74	50V, 100V, 200V, 10%, 20%	various	See page 4	
3001/030	01 up to 52, 59, 60	500V	various	See page 4	

Component Manufacturer AVX Limited	2	Location of Manufacturing Plant(s) HILLMANS WAY INDUSTRIAL ESTATE BALLYCASTLE ROAD COLERAINE COUNTY LONDONDERRY NORTHERN IRELAND, UK	3	Date of original qualification approval: Date: 30/07/1996 Certificate Ref No. 231	4
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ESCC Specifications used for Maintenance of qualification testing: Generic: 3001 Issue: 2 Detail(s): 3001/030 Issue: 7	5	Deviations to LVT testing and Detail Specification used: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (supply details in Box 15) Deviation from current Specifications: No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> (Supply details)	6	Qualification Extension Report reference and date: See box 14	7
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Summary of procurement or equivalent test results during current validity period in support of this application (those to ESCC listed first)

Project Name	Testing Level	LAT	Date code	Quantity Delivered

PID changes since start of qualification None <input type="checkbox"/> Minor* <input checked="" type="checkbox"/> Major* <input type="checkbox"/> *Provide details in box: (K) change in supplier of ceramic tape	9	Current PID Verified by: ESA Name of Executive Representative Ref No: COL/ESA/PI-01 Issue: 5, REV K Rev Date: 18/06/2018	Date: 11/07/2018	10
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Current Manufacturing facilities surveyed by: ESA on 24/01/2017 (Name of Executive Representative) (Date)	11
Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain	
Report Reference: ESA-TECQES-MIN-004092	



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Failure Analysis, DPA, NCCS available: Yes No (Supply data)

Ref. No's and purposes:

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The undersigned hereby certifies on behalf of the ESCC Executive - that the above information is correct; - that the appropriate documentation has been evaluated; - that full compliance to all ESCC requirements is evidence (except as stated in box 15); - that the reports and data are available at the ESCC Executive and therefore applies on behalf of ESA as the responsible Executive Member for ESCC qualification status to be extended to the component(s) listed herein.

Date: 07/08/2018

Fernando Martinez

P.A. [Signature]

(Signature of the Executive Coordinator)

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Continuation of Boxes above:

[7]: test evidence related to this revision of validity of qualification is found in reports:

- COL/ESR/18-02
- COL/ESR/18-03
- COL/ESR/18-04

(additional test references apply as well, as referenced in MOQ form No. 231L)



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Non compliance to ESCC requirements:

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No.:	Specification	Paragraph	Non compliance

Additional tasks required to achieve full compliance for ESCC qualification or rationale for acceptability of noncompliance:

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ISS. 7 of Detail specification,, effective at the time of manufacturing, was used for this validation of the change in supplier of ceramic tape

Executive Manager Disposition

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Application Approval: Yes No

Action / Remarks:

Date: 10/08/2018

B. Schade, Head of Product Assurance
And Safety Department - ESA Representative



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ANNEX 1: LIST OF TESTS DONE TO SUPPORT EXTENSION OF QUALIFICATION

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Tests conducted in compliance with:

- ESCC 3001 generic specification; Chart V (for ESCC/QPL parts);
- Or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

300103011106KC (CH435C106KE7UV0) F625200 (OCT.2016)	
3001030222156KE (CH541C156KE3TX0) F830450 (MAY 2017)	
300103029336KC (CH635C336KE3TX0) F832870 (APRIL 2017)	

Detail Specification reference: 3001/030

Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Environmental / Mechanical Subgroup	Robustness of Terminations	<input type="checkbox"/>	IEC 68-2-21				Not required in ESCC 3001 iss2
	Resistance to Soldering Heat	<input type="checkbox"/>	ESCC 3001, Para. 8.9				Not performed for the validation of the change in ceramic tape
	External Visual Inspection	<input type="checkbox"/>	ESCC 20500				
	Climatic Test Sequence	<input type="checkbox"/>					Not required in ESCC 3001 iss2
Environmental / Mechanical Subgroup (Column 2)	Rapid Change of Temperature	<input checked="" type="checkbox"/>	ESCC 3001, Para. 8.5	all lots	60	0	
	Steady State Humidity	<input checked="" type="checkbox"/>	ESCC 3001, Para. 8.2	all lots	60	0	
	Vibration	<input checked="" type="checkbox"/>	ESCC 3001, Para. 8.10	all lots	6	0	
	Shock	<input checked="" type="checkbox"/>	ESCC 3001, Para. 8.11	all lots	18	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC 3001, Para. 8.8	all lots	18	0	
Endurance Subgroup	Operating Life	<input checked="" type="checkbox"/>	ESCC 3001, Para. 8.12	all lots	120	0	2000 h
	Electrical Meas. After Endurance Testing	<input checked="" type="checkbox"/>	ESCC 3001, Para. 8.12	all lots	120	0	
Electrical Subgroup (Electrical Measure)	Temperature Coefficient (Type I)	<input type="checkbox"/>	ESCC 3001, Para.8.13				N/A
	Temperature Characteristic (Type II)	<input checked="" type="checkbox"/>	ESCC 3001, Para. 8.13	all lots	18	0	
	Solderability	<input type="checkbox"/>	ESCC 3001, Para. 8.14			0	Not performed for the validation of the change in ceramic tape
	Permanence of Marking	<input type="checkbox"/>	ESCC 24800			0	Not performed for the validation of the change in ceramic tape



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NOTES ON THE COMPLETION OF THE APPLICATION FORM FOR ESCC QUALIFICATION EXTENSION APPROVAL

ENTRIES

Form heading	shall indicate: - the title of the component as given in its detail specification or the name of the series, family; - the Executive Member; - the entering date; - the certificate number and its sequential suffix.
Box 1	shall provide details given in the table; in particular there shall be listed: - the variants or range of variants; - the range of components (the ESCC code is recommended to indicate the values or values range, the tolerance, the voltage, etc); the designation given in the detail specification as 'base on'; - under Test Vehicle enter either an ESCC code or the specific characteristic capable of identifying the component tested (e.g., voltage of coil for a relay); - under component similar enter a cross if relevant.
Box 2; 3 and 4	As per QPL entry; otherwise, an explanation of the changes must be supplied.
Box 5	Will show the ESCC Generic and Detail specifications, including issue number and revision letter, current at the time the tests reported were performed. If the specifications are different from those current on the date of the application, see Box 6.
Box 6	Will show the deviations from the Generic and Detail Specifications listed in Box 5, in particular deviations from testing. In case of deviations this must be listed in Box 15. In case the referenced specification in Box 5 have currently a different issue and/or revision indicate also whether the test data deviates or not from such current documents.
Box 7	Must reference the report(s) supplied in support of the application.
Box 8	Should provide the details of procurement to the full ESCC System, documentation of all of which should already have been delivered to the ESCC Executive under the terms of the relevant Generic Specification. An appropriate table has been drawn in this box.
Box 9	If the PID evolved after the Original Qualification or after the last Extension of Qualification, adequate details of such evolution shall be provided together with the reasons for the changes. Major changes shall be clearly marked.
Box 10	Identify the current PID issue status, date and actual date of verification. The date of verification of the current PID should be arranged as close as possible to the required date of extension.
Box 11	This box can be completed only after a physical visit to the plant to confirm that no unexplained changes occurred and that the practices, procedures, material, etc. used in manufacturing the components are as described in the PID. This survey shall be carried out in accordance with the requirements of ESCC Basic Specification No. 20200 and its findings shall be recorded.
Box 12	Provide details of, or reference to, any Destructive Physical Analysis (DPA) and Failure Analysis reports as well as any Nonconformance(s) (NCCS) occurred during the qualification validity period, stating if established corrective action have produced satisfactory results.
Box 13	Enter only the name of the Executive Member (i.e., CNES, DLR, ESTEC, etc.) and the signature of the responsible Executive Coordinator.
Box 14	To be used when there is a need to expand any of the boxes from 1 through 12. Identify box affected and reference the Box 14 in the relevant Box. Box 14 can be broken into 14a, 14b, etc. if several boxes have to be expanded.
Box 15	Fill in Table as requested.
Box 16	Any additional action deemed necessary by the Executive Member to bring the submitted data to a standard likely to be accepted by the ESCC Executive should be listed herein or the reason(s) to accept the noncompliance.
Box 17	All Executive Manager recommendations on the application itself, special conditions or restrictions, modifications of the QPL or QML entry, letters to the manufacturer, etc. shall be entered clearly in Box 19, signed by the representative for ESA, and dated.
Box 18	Fill in Table as requested.
Box 19	Confidential Details of PID changes including those of a confidential nature, shall be provided.
Box 20	State noncompliance with reference to specification(s) and paragraph(s). To simplify reference in Box 16 each nonconformance shall be sequentially numbered. If relevant state 'None'.
Box 21	Any additional action deemed necessary by the Executive Member to bring the submitted data to a standard likely to be accepted by the ESCC Executive should be listed herein or the reason(s) to accept the noncompliance.
Box 22	Additional Comments.