APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title:

CAPACITORS, CERAMIC, TYPE II, HIGH VOLTAGE, 1.0 TO 5.0 KV, BASED ON

CASE STYLES VR, CV, AND CH

Page 1 Appl. No.

Executive Member: ESA 06/08/2018 Date: 262H rev1 1 Components (including series and families) submitted for Extension of Qualification Approval: **ESCC** BASED TEST COMPONENT COMPONENT VARIANTS RANGE OF COMPONENTS ON VEHICLE / S SIMILAR NO. 3001034 10% 01 TO 22 **VARIOUS** SEE PAGE 4 Component Manufacturer 2 Location of Manufacturing Plant(s) 3 4 **AVX Limited** HILLMANS WAY Date of original qualification approval: INDUSTRIAL ESTATE Date: 30/09/2000 BALLYCASTLE ROAD COLERAINECOUNTY Certificate Ref No. 262 LONDONDERRY NORTHERN IRELAND, UK 5 6 7 ESCC Specifications used for Deviations to LVT testing and Detail Specification Qualification Extension Report Maintenance of qualification testing: reference and date: COL/ESR/18-01 and /18-05 Generic: 3001 Issue: (supply details in Box 15) 3001/034 Detail(s): Issue: 4 Deviation from current Specifications: Yes (Supply details) 8 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 9 Current PID Verified by: ESA 10 None Name of Excutive Representative Minor* \boxtimes Ref No: COL/ESA/PI-01 Major* Issue: 5, REV K Date 11/07/2018 *Provide details in box: (K) change in supplier of ceramic tape 18/06/2018 Rev Date: 11 Current Manufacturing facilities surveyed by: **ESA** 24/01/2017 (Name of Executive Representative) (Date) Satisfactory: Yes \boxtimes No Explain Report Reference: ESA-TECQES-MIN-004092

APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL Page 2 CAPACITORS,CERAMIC, TYPE II, HIGH VOLTAGE, 1.0 TO 5.0 KV,BASED ON CASE STYLES VR, CV, AND CH Component title: Appl. No. **Executive Member:** Date: 06/08/2018 262H rev1 12 Failure Analysis, DPA, NCCS available: X (Supply data) Yes No Ref. No's and purposes: Construction Analysis No. MTSL CA 0002217 13 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. Fernando Trastinez Date: 06/08/2018 (Signature of the Executive Coordinator) Continuation of Boxes above: 14



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component title:

Executive Member:

ESA

CAPACITORS, CERAMIC, TYPE II, HIGH VOLTAGE, 1.0 TO 5.0 KV,BASED ON CASE STYLES VR, CV, AND CH

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Non compliance to ESCC requirements:

No.:	Specification	Paragraph	Non compliance	
	эрсолюция	, aragraph	Non compliance	
Additional noncompl	I tasks required to achieve full compliance liance:	for ESCC qualification or rationale for acceptability	of	16
		f manufacturing, was used for this validation of the	change in supplier of ceramic tape	
Executive	Manager Disposition			1.7
				17
Action / R	Remarks:			
	2			
			2 (1/1	
Date:	10/08/2018		2. 201	
Date.	10/08/2018		B. Schade, Head of Product Assurance	
			And Safety Department - ESA Representati	ve

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CAPACITORS, CERAMIC, TYPE II, HIGH VOLTAGE, 1.0 TO 5.0 KV, BASED ON CASE STYLES VR, CV, AND CH Component Title:

06/08/2018 Date:

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

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:

300103414223KR (F752150) (MAY 2017)	
300103414564KM (F625140) (DEC. 2016)	

Executive Member:

Detail Specification reference: 3001/034

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		IEC 68-2-21				Not required in ESCC 3001 iss2
	Resistance to Soldering Heat		ESCC 3001, Para. 8.9				Nor performed for validation of change in supplier of ceramic tape
nviron	External Visual Inspection		ESCC 20500				
Med	Climatic Test Sequence						Not required in ESCC 3001 iss2
Q.	Rapid Change of Temperature	×	ESCC 3001, Para. 8.5	All lots	20+20	0	
Environmental / Mechanical Subgroup (Column 2)	Steady State Humidity	×	ESCC 3001, Para. 8.2	All lots	20+20	0	
Environmental / chanical Subgro (Column 2)	Vibration		ESCC 3001, Para. 8.10	All lots	6+6	0	
Envi lechar (C	Shock	×	ESCC 3001, Para. 8.11	All lots	6+6	0	
Σ	External Visual Inspection	×	ESCC 3001, Para. 8.8	All lots	6+6	0	
Endurance Subgroup	Operating Life	×	ESCC 3001, Para. 8.12	All lots	20+20	0	
	Electrical Meas. After Endurance Testing	×	ESCC 3001, Para. 8.12	All lots	20+20	0	
Electrical Subgroup (Electrical Measure	Temperature Coefficient (Type I)		ESCC 3001, Para.8.13				N/A
	Temperature Characteristic (Type II)	×	ESCC 3001, Para. 8.13	All lots	6+6	0	
	Solderability		ESCC 3001, Para. 8.14				Nor performed for validation of change in supplier of ceramic tape
	Permanence of Marking		ESCC 24800				Nor performed for validation of change in supplier of ceramic tape



ENTRIES Form heading

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shall indicate: - the title of the component as given in its detail specification or the name of the series, family; - the Executive Member;

Executive Member: Date: 06/08/2018

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

, sim neading	- 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.