Component Title: Relays, non-latching, type M300

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TANK I		Executive Member:	CNES			Date: 17/05/2017	318B re	ev.1		
Components (include	ling series and families	s) submitted for Extension	of Qualification	Approval:				1		
ESCC COMPONENT NO.	VARIANTS	RANGE OF COM	OMPONENTS BASEI			TEST VEHICLE / S	COMPONE SIMILAR			
3601 007 03,04,06		Coil voltage : 12 and	Type M300		3601 00704B 28V	All other variants in ESCC 3601 007				
						,				
		_								
Component N	Manufacturer	2 Location of Ma	Location of Manufacturing Plant(s) 3				1	4		
Leach Internation	onal Europe	2 rue Goethe	2 rue Goethe				Date of original qualification approval: Date: 01/02/2014			
		57430 SARRALB	BE		c	Certificate Ref No. 318				
ESCC Specification	11 NOTES	5 Deviations to LVT to	6 Deviations to LVT testing and Detail Specification			Qualification Extension Report				
Maintenance of qua		used:	used:				reference and date: RT_1168897, 17/03/2016			
	10000. 20		15)			RT_1211780, 19/04/2017				
Detail(s): 3601 0	•	No ⊠ Yes	Deviation from current Specifications: No ⊠ Yes □ (Supply details)			RT_1197512, 20/03/2017				
see box 16								8		
Summary of procur Project Name		esults during current validity period in support of this app			pplication (those to ESCC listed first) Quantity Delivered					
See Qual. Report Appendix 9	Testing Lev	E		Date code		3,43,111	,			
			1	New Years I have		ONES		10		
PID changes since	start of qualification	9	Current PID	Ventied by:		CNES Name of Excutive Representative				
Minor* ⊠			Ref No: DR_1156613 2							
Major* □	*Provide details in I	OOX:	Issue: Rev Date:	02/03/2016		Date	9: 02/03/2016	, ——		
Current Manufactu		ESA & CNES			on 2	26-27/I/20	11			
Satisfactory:	Yes ⊠	•	ne of Executive	Representativ	e)		(Date)			
Report Reference:	-	N2014-Leach01		- /		4-25-				
	acs/	18/100201	+ DCT	/AQ/	CQ	-2010/8987				

ESCC

APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component title:

Relays, non-latching, type M300

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Failure Analysis, DPA, NCCS available:

Yes

No

(Supply data)

Ref. No's and purposes:

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 CNES as the responsible Executive Member for ESCC qualification status to be extended to the component(s) listed herein.

13

14

Date:

18/05/2017

JP. BUSSENOT

(Signature of the Executive Coordinator)

Continuation of Boxes above:

Box 9: PID change

Just forms changes , No technical modification.

CLARIFICATION ON REV. 1 OF CERTIFICATE 318B:

- THIS MOD (EXTENSION) PRIVIDES TEST EVIDENCE REQUIRED IN

CONFURMANCE WITH ESK 3601 RECARDING CHANTEY TESTS

THAT HAVE TO BE IMPLEMENTED WITH A IZMONTS PERIODICITY.

THIS EXTENSION PROVIDES AS WELL ASSURANCE BY TEST ON
THE CAPACITY OF M300 RELAYS TO SURVIVE HIGH LEVEL
SINE VIBRATION AND MECHANICAL SHOCK (REF. ESCL 3601)



Component title: Relays, non-latching, type M300

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Non compliance to ESCC requirements:

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No.:	Specification	Paragraph	Non compliance
1	E1003601		1313 used for qualification. Though iss 4 exists.

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

16

Esc 3601 issue 4 & technically 100% equivalent to issue? The update of The spec up to issue 4 was only editorial (DCR 955)

Executive Manager Disposition

17

Application Approval: Yes 🖫 No 🗆

Action / Remarks:

DCR TO ESCE 3601/007 SHALL BE RAISED TO REMOVE FROM APP. A THE PREVIOUSLY AGREED DEVIATION RELATED TO HIGH LEVEL SINE VIBRATION AND MECHANICAL SHOCK.

ADDITIONAL EXCE SURVEY OF THIS PLANT IS SCHEDULED FOR W. 27

Date:

Signature, ESA Representative

Executive Member: CNES

Component Title: Relays, non-latching, type M300

Date: 17/05/2017

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

Tests conducted in compliance with:

ESCC 3601 generic specification; Chart F4 (for ESCC/QPL parts); Or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

+

Detail Specification reference:

3601 007

Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Subgroup	Thermal Shock	⊠	MIL-STD-202, Test Method 107	15-21	6	0	
	Low Level Sine Vibration	⊠	MIL-STD-202, Test Method 204	15-21	6	0	
	Random Vibration		MIL-STD-202, Test Method 214	15-21			
/ Mechani (Column 1)	Low Level Mechanical Shock	Ø	MIL-STD-202, Test Method 213	15-21	6	0	
(Co	Resistance to Soldering Heat	×	MIL-STD-202, Test Method 210	15-21	6	0	
Environmental / Mechanical (Column 1)	Seal (Fine and Gross Leak)	×	MIL-STD-202, Test Method 112	15-21	6	0	
Envir	External Visual Inspection	×	ESCC Basic Specification No. 20500	15-21	6	0	
Environmental / Mechanical Subgroup (Column 2)	High Level Sine Vibration	⊠	MIL-STD-202, Test Method 204	15-21	6	0	Test satisfactorily performed to remove deviation in ESCC 3601/007 appendix – DCR to corr
	High Level Mechanical Shock		MIL-STD-202, Test Method 213	15-21	6	0	Test satisfactorily performed to remove deviation in ESCC 3601/007 appendix – DCR to com
	Seal (Fine and Gross Leak)	⊠	MIL-STD-202, Test Method 112	15-21	6	0	
	External Visual Inspection	⊠	ESCC Basic Specification No. 20500	15-21	6	0	
Endurance Subgroup 1 (Column 1)	Low Level Life	×	ESCC 3601 Para. 8.11.1	15-21	3	0	
	Inductive Life	×	ESCC 3601 Para. 8.11.2	15-21	3	0	
	Seal (Fine and Gross Leak)	×	MIL-STD-202, Test Method 112	15-21	3	0	
	External Visual Inspection	×	ESCC Basic Specification No. 20500	15-21	3	0	



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Executive Member: CNES Date: 17/05/2017

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Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Endurance Subgroup 1 (Column 2)	Coil Life		ESCC 3601 Para. 8.12				N/A
	Seal (Fine and Gross Leak)		MIL-STD-202, Test Method 112				
	External Visual Inspection		ESCC Basic Specification No. 20500				
p 1	Intermediate Current	×	ESCC 3601 Para. 8.13	15-21	3	0	
ubground 3)	Mechanical Life	×	ESCC 3601 Para. 8.14	15-21	3	0	
ance Subgr (Column 3)	Seal (Fine and Gross Leak)	×	MIL-STD-202, Test Method 112	15-21	3	0	
Endurance Subgroup 1 (Column 3)	External Visual Inspection	×	ESCC Basic Specification No. 20500	15-21	3	0	
Endurance Subgroup 2	Resistive Life	×	ESCC 3601 Para. 8.11.3	15-21 , 16-31	12	0	
	Seal (Fine and Gross Leak)	⊠	MIL-STD-202, Test Method 112	15-21 , 16-31	12	0	
	External Visual Inspection	⊠	ESCC Basic Specification No. 20500	15-21, 16-31	12	0	
Assembly Capability Subgroup	Solderability	×	MIL-STD-202, Test Method 208	15-21, 16-31	12	0	
	Overload	×	ESCC 3601 Para. 8.16	15-21, 16-31	6	0	
	Permanence of Marking		ESCC Basic Specification No. 24800				N/A
	Terminal Strength	×	MIL-STD-202, Test Method 211	15-21 , 16-31	6	0	
	Seal (Fine and Gross Leak)	×	MIL-STD-202, Test Method 112	15-21, 16-31	6	0	
Additional Tests	Electrical Measurements	×	ESCC 3602 para 9.3	15-21, 16-31	6	0	
	Seal (Fine and Gross leak)	×	MIL-STD- 202, Test Method 112	15-21 , 16-31	6	0	
		×	ESCC Basic Specification No. 20500	15-21, 16-31	6	0	



Component title:

Additional Comments.

Box 22

Relays, non-latching, type M300

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Executive Member:

CNES

Date: 17/05/2017

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NOT	ES 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.