ESCC

APPLICATION FOR ESCC QUALIFICATION APPROVAL

Component Title: Relays, latching, type GP250

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	- 5	xecutive	Memb	er:	CNE	s						Date:	22/	/08/2	019		362	
Components (including series and families) submitted for Qualification Appro						/al												1
ESCC VARIANTS COMPONENT. NO.			RANGE OF COMPONENTS				BASED ON		TEST VEHICLE / S			COMPONENT		NT				
	01, 02, 03, 04, 05 Coil Voltage : 12 a				and 26.5V T			Type GP250		3602 010 01 12V 3602 010 02 12V 3602 010 04 12V 3602 010 04 12V 3602 010 02 26V 3602 010 02 26V 3602 010 03 26V		Al	All variants					
Component Manufacturer 2 Location o					lanufactu	ring F	Plant	3	3	E	ESCC Specification used for Qualification				4			
LEACH International Europe 2 rue Goethe 57430 Sarralbe										General Issue Detail	/s:	4	602 602/01	10				
Qualification Report Reference and date					5	P	PID used	for man	ıufa	acturing	Qual	ificatio	n Lot					6
RQ_1271670_2 Date: 21/08/2019						Is	Ref No: ssue: Date:	3	1	_11639								
PID changes since start of qualification 7					Current	Current PID Verified by CNES						_	8					
None													e Rep	rese	ntative			
Minor* ⊠ (* Details not published, provided in					Ref No: DR_1163959 Issue 4													
Major* □ confidential annex 2.)					Date 15/04/2019													
Current Manufacturing facilities surveyed by:																		9
CNES						2019	į.											
(Name of Executive Responsible) (Da						(_							
20190618_CRIM-LEACH																		
Report Reference			-															
Satisfactory: Yes ⊠		No		Ėx	plain													
Quality and Reliability Data																		10
Evaluation testing performed Yes □ No ⊠							Failur availa	e analys ible	sis,	DPA, I	NCCS		Ye	es		No	⊠	
Report Ref. No.: Date:							(suppl	ly data)										
Equivalent Data:	Equivalent Data:																	
Certification: Evaluation Testing in-progress, will be completed early in 2020. Relays construction did not change further to the Transfer from Niort site.					Ref N	los. and	pu	rpose:										



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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 13; that the reports and data are available at the ESCC Executive and therefore applies for ESCC qualification status to be given to the component(s) listed herein.

Date:

26/08/2019

JP BUSSENU I

(Signature of the Executive Coordinator)

Continuation of Boxes above: (Only non-confidential comments)

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[10] The production and test of GP250 with the same design was previously qualified at a different production location, from February 1982 to February 2017, reference certificate of Qualification No. 93

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Non compliance	to ESCC requireme	ents:			13
No.:	Specifica	ation	Paragraph	Non compliance	
					±
Additional tasks noncompliance:	required to achieve f	ull compliance for E	LESCC qualification or rationale for acceptability of	l of	14
ESCC audit was	performed by CNES	and ESA in July 2 ere reported. The re	017 in order to validate production transfer from esult of this audit was satisfactory.	Niort to Sarralbe (reference report:	
Executive Manag					15
Application Appr Action / Remarks		No □			
Date:				B. Schade, Head of ESA Product Assurance and Safety Department	e



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ANNEX 1: LIST OF TESTS DONE TO SUPPORT QUALIFICATION

Tests conducted in compliance with:

ESCC 3602 generic specification; Chart F4 (for ESCC/QPL parts); Or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

3602 010 01 12V (Ref : GP250-150E00-12V-860 / DC : 19-17A)	3602 010 04 12V (Ref : GP250-150EHA-12V-860 / DC: 19-21A)
3602 010 02 12V (Ref : GP250-150EDB-12V-860 / DC : 19-22A)	3602 010 01 26V (Ref : GP250-720E00-26V-860 / DC: 19-17A)
3602 010 02 26V (Ref: GP250-720EDB-26V-860 / DC: 19-14A)	3602 010 03 26V (Ref: GP250-720FHA-26V-860 / DC: 19-21A)

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Detail Specification reference: 3602/010

Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
1)	Thermal Shock	×	MIL-STD-202, Test Method 107	19-14A, 19-17A, 19-21A	18	0	
Environmental / Mechanical Subgroup (Column 1)	Low Level Sine Vibration	⊠	MIL-STD-202, Test Method 204	19-14A, 19-17A, 19-21A	18	0	
Subgroup	Random Vibration	×	MIL-STD-202, Test Method 214	19-14A, 19-17A, 19-21A	18	0	
hanical S	Low Level Mechanical Shock	×	MIL-STD-202, Test Method 213	19-14A, 19-17A, 19-21A	18	0	
tal / Mec	Resistance to Soldering Heat	×	MIL-STD-202, Test Method 210	19-14A, 19-17A, 19-21A	18	0	
ironmen	Seal (Fine and Gross Leak)	⊠	MIL-STD-202, Test Method 112	19-14A, 19-17A, 19-21A	18	0	
En	External Visual Inspection		ESCC Basic Specification No. 20500	19-14A, 19-17A, 19-21A	18	0	
up	High Level Sine Vibration	×	MIL-STD-202, Test Method 204	19-17A, 19-21A, 19-22A	18	0	
Environmental chanical Subgro (Column 2)	High Level Mechanical Shock	×	MIL-STD-202, Test Method 213	19-17A, 19-21A, 19-22A	18	0	
Environmental / Mechanical Subgroup (Column 2)	Seal (Fine and Gross Leak)	×	MIL-STD-202, Test Method 112	19-17A, 19-21A, 19-22A	18	0	
/ W	External Visual Inspection	×	ESCC Basic Specification No. 20500	19-17A, 19-21A, 19-22A	18	0	
0.1	Low Level Life	×	ESCC 3602 Para, 8.11.1	19-17A	3	0	
Endurance Subgroup 1 (Column 1)	Inductive Life		ESCC 3602 Para. 8.11.2				Only applicable to relays with Rated Resistive Load Contact Current greater than or equal to 5A.
urance (Colu	Seal (Fine and Gross Leak)	⊠	MIL-STD-202, Test Method 112	19-17A	3	0	
End	External Visual Inspection	×	ESCC Basic Specification No. 20500	19-17A	3	0	



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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
9 T G	Coil Life	Ø	ESCC 3602 Para. 8.12	19-14A, 19-21A	12	0	
Endurance Subgroup 1 (Column 2)	Seal (Fine and Gross Leak)	×	MIL-STD-202, Test Method 112	19-14A, 19-21A	12	0	
Sub (Co	External Visual Inspection	×	ESCC Basic Specification No. 20500	19-14A, 19-21A	12	0	
p 1	Intermediate Current	×	ESCC 3602 Para. 8.13	19-17A	3	0	
Endurance Subgroup 1 (Column 3)	Mechanical Life		ESCC 3602 Para. 8.14				Only applicable to relays with Rated Resistive Load Contact Current greater than or equal to 5A.
(Colu	Seal (Fine and Gross Leak)	×	MIL-STD-202, Test Method 112	19-17A	3	0	
Endu	External Visual Inspection	⊠	ESCC Basic Specification No. 20500	19-17A	3	0	
2 0	Resistive Life	×	ESCC 3602 Para. 8.11.3	19-17A	6	0	
Endurance Subgroup 2	Seal (Fine and Gross Leak)	⊠	MIL-STD-202, Test Method 112	19-17A	6	0	
Sub	External Visual Inspection	×	ESCC Basic Specification No. 20500	19-17A	6	0	
	Solderability	×	MIL-STD-202, Test Method 208	19-17A	3	0	
ability	Overload	×	ESCC 3602 Para. 8.16	19-17A	3	0	
Assembly Capability Subgroup	Permanence of Marking		ESCC Basic Specification No. 24800				Not applicable for laser marking
Asser	Terminal Strength	×	MIL-STD-202, Test Method 211	19-17A	3	0	
	Seal (Fine and Gross Leak)	⊠	MIL-STD-202, Test Method 112	19-17A	3	0	
la :							
Additional Tests							
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NOTES ON THE COMPLETION OF THE APPLICATION FORM FOR ESCC QUALIFICATION APPROVAL

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Εľ		

Form Heading

shall indicate:— the title of the component as given in its detail specification or the name of the series or family; — the entering

date; — the serial number and the suffix of the form.

Box 1

shall provide details given in table; in particular there shall be listed - the variants or range of variants; the range of components by using the ESCC code for values tolerances, etc.; the designation given in detail specification as 'based on'; —under Test Vehicle enter either a cross or the specific characteristic capable to identify the component tested; — under component similar

enter a cross.

Box 2 and 3

Manufacturer's name and location of plant where the components were manufactured and tested.

Box 4

Generic and detail specifications used during qualification program.

Box 5

Reference to test report(s) submitted in support of application.

Box 6

Enter details to identify the PID that was applicable at the time the qualification lot was manufactured.

Box 7

If the PID was evolved after qualification lot manufacture, adequate details of such evolution shall be provided together with

reasons for changes. Major changes shall be clearly marked.

Box 8

The box serves to identify the current PID and the Executive Representative that has verified it together with the date of this

occurrence

Box 9

This box can be completed only after a physical visit to the plant to confirm that the practices, procedures, materials, 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 10

Details entered shall be sufficient to evidence that an evaluation program according to ESCC Basic Specification No. 22600 has been performed and that the results thereof are summarized in the survey and test reports. If the evaluation program has not been carried out according to established ESCC documents, the applicant Executive Representative shall provide alternative data and declare its assessed degree of satisfactory compliance with the ESCC basic requirements. Reference shall be made to the reports on Destructive Physical Analysis (DPA), Failure Analysis and Non conformance (NCCS) issued during

the Evaluation and/or Qualification Phase.

Box 11

Enter the name of the Executive Coordinator and the signature.

Box 12

To be used when there is a need to expand any of the boxes from 1 through 10. Identify box affected and reference the Box 12 in the relevant Box. Box 12 can be broken into 12a, 12b, etc. if several Boxes have to be expanded.

Box 13

Fill table as requested.

Box 14

Fill in any additional tasks required to achieve full compliance.

Box 15

All Executive recommendations on the application itself, special conditions or restrictions, modifications of the QPL or ESCC

QML entry, letters to the manufacturer, etc. shall be entered clearly in Box 15, signed by the ESA Representative.

Box 16

Fill in Table as requested.

Box 17

Confidential details of PID changes shall be provided.

Box 18

State noncompliance with reference to specification(s) and paragraph(s). To simplify reference in Box 18 each

nonconformance shall be sequentially numbered. If relevant state 'None'

Box 19

Any additional action deemed necessary by the Executive Representative 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 nonconformance.

Box 20

Additional Comments