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Page 1

Component Title: Relays, electromagnetic, non-latching, type TL Appl. No. Executive Member: CNES Date: 14/05/2018

Martin Company of the		xecutive Membe	ci. C	INES			rate. 14/03/2016	88K		
Components (including	ng series and families) s	ubmitted for Ext	ension o	of Qualification	Approval:				1	
ESCC COMPONENT NO.	VARIANTS	RANGE C	RANGE OF COMPONENTS			D	TEST VEHICLE / S	COMPONENT SIMILAR		
3602 002	01 to 06	Rated coil Vo	ltage		TL relays		SCC 3602 002 01 26V	All variants		
_										
Component Ma	anufacturer 2			ufacturing Plar	nt(s) 3	-1			4	
REL-STPI 22 Rue de 45 140 Sa				la Ruelle - Fra	nce	Date	Date of original qualification approval: Date: 01/01/1982			
						Certi	ficate Ref No. 88			
ESCC Specifications Maintenance of quali					Specification	Qual refer	ort	7		
Generic: 3602	Issue: 4	No ⊠	Yes	(supply 15)	details in Box	3606 rapport de VOQ TL 26 F70 , 03/04/2018				
Detail(s): 3602/00	2 Issue: 3	AND THE PARTY OF T	n curren Yes	t Specifications	s: · details)	Rap	port 3593.09.17 , 28/09/2	2017		
	8 8 9 7 7	72 8 757		80 8 12		11			8	
Summary of procurer Project Name	ment or equivalent test re Testing Level		ng current validity period in support of this appli LAT Date code			pplication	10 CO	first) ty Delivered		
Data livraisons T & T SCC - MAJ 31032018.xlsx								,		
VOQ CNES	TL 26 F70	LATI		17-22			30			
PID changes since st	tart of qualification		9	Current PID	Verified by:		CNES		10	
None				Def Ne	DID TI IND		Name of Excutive Repres	sentative		
Minor* ⊠ Major* □ *Provide details in box:				Ref No: PID TL - IND W Issue: W Rev Date: 01/05/2018			Date	e: 03/05/2018		
				Nev Date.	01/03/2010			3	11	
Current Manufacturin	ig facilities surveyed by:	<u> </u>	98 Tubbook	CNES & E	(294° 10°	°	n 1	14/09/2016 and 4/5/20	018	
Callagadaaa	V =	=			Representative)			(Date)		
Satisfactory:	Yes ⊠	No 🗆	Expl	ain						
Report Reference:	ESCC-AUD-RELF	2016 and ESC	C-SUR-I	RELF2018						

	APPLICAT	ION FOR EXTE	ENSION OF ESCC QUAI	IFICATIO	ON APPROVAL	Page 2
ESCC	Component title:	Relays, elec	tromagnetic, non-latching	g, type TL		Appl. No.
	Executive Member:	CNES		Date:	14/05/2018	88K
E To A London	- Harden	5-01 No. 10				12
Failure Analysis, DPA, NCCS av	ailable: Yes	⊠ No	☐ (Supply data)			
Ref. No's and purposes: NCCS 2C	STPI501 (coil wire diss	olution) has bee	en closed out. See also E	SA Alert	EA-2015-EEE-9-B, 22/07/	2016
The undersigned hereby certifies on beha that the appropriate documentation has be (except as stated in box 15;) - that the rep CNES as the responsible Executive Mem	een evaluated; - that ful orts and data are avail	ll compliance to able at the ESC	all ESCC requirements in C Executive and therefore	s evidenc re applies	on behalf of	13
Date: 14/05/2018					JP. BUSSENO	
				(Si	gnature of the Executive (Coordinator)
Continuation of Boxes above: PID Modification :						14
Update of PCP 413 03 02, PC MC 05 69 043 00 Become 05 New equipments qualification Update of process manageme	P 414 03 02 69 097 00	REL system				



Component title:

Relays, electromagnetic, non-latching, type TL

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Non com				
No.:	Specification	Paragraph	Non compliance	
1	3602 issue 4	Chart F2	Chart F2 Thermal Shock replaced with five Monitored Thermal Cycles with continuous coil resistance measurements.	
Additiona	al tasks required to achieve full compliance sliance:	for ESCC qualification or rationale for accept	ability of	16
None, no	n compliance requested by ESCC MRB in	the context of NCCS 2CSTPI501.	::	
or new	procurements of ESCC qualified TL26 relay	ys, parts from date code 1611 or later shall be	e preferred.	
executive	e Manager Disposition			and the second s
				1
pplication	on Approval: Yes No			SATE CONTRACTOR
pplication				
pplication	on Approval: Yes No	0		
pplication	on Approval: Yes No	0		
pplication	on Approval: Yes No			SATE /
pplication	on Approval: Yes No			
pplication	on Approval: Yes No			
pplication	on Approval: Yes No			
Application	on Approval: Yes No			
Application	on Approval: Yes No			
Application	on Approval: Yes No			
pplication	on Approval: Yes No		Da Ara	
pplication	on Approval: Yes No		n Vakklel	



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

	SCC 3602 002 01 12V, Lot 901841 , DC 17-26
SCC 3602 002 01 26V , lot 967211 , DC 17-22	

Detail Specification reference:

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	17-22	6	0	
	Low Level Sine Vibration	×	MIL-STD-202, Test Method 204	17-22	6	0	
	Random Vibration		MIL-STD-202, Test Method 214				
/ Mechani (Column 1)	Low Level Mechanical Shock	×	MIL-STD-202, Test Method 213	17-22	6	0	
ental /	Resistance to Soldering Heat	×	MIL-STD-202, Test Method 210	17-22	6	0	
Environmental / Mechanical (Column 1)	Seal (Fine and Gross Leak)	×	MIL-STD-202, Test Method 112	17-22	6	0	
<u> </u>	External Visual Inspection	×	ESCC Basic Specification No. 20500	17-22	6	0	
roup	High Level Sine Vibration	×	MIL-STD-202, Test Method 204	17-22	3	0	
Environmental chanical Subgroup (Column 2)	High Level Mechanical Shock	×	MIL-STD-202, Test Method 213	17-22	3	0	
Environment Mechanical Su (Column 2)	Seal (Fine and Gross Leak)	⊠	MIL-STD-202, Test Method 112	17-22	3	0	
/ Mec	External Visual Inspection	×	ESCC Basic Specification No. 20500	17-22	3	0	
p 1	Low Level Life	×	ESCC 3602 Para. 8.11.1	17-22	3	0	
Endurance Subgroup (Column 1)	Inductive Life		ESCC 3602 Para. 8.11.2				
rance Subgr (Column 1)	Seal (Fine and Gross Leak)	×	MIL-STD-202, Test Method 112	17-22	3	0	
Endu	External Visual Inspection	⊠	ESCC Basic Specification No. 20500	17-22	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
Endurance Subgroup 1 (Column 2)	Coil Life		ESCC 3602 Para. 8.12				
	Seal (Fine and Gross Leak)		MIL-STD-202, Test Method 112				
	External Visual Inspection		ESCC Basic Specification No. 20500				
dn	Intermediate Current	×	ESCC 3602 Para. 8.13	17-22	3	0	
Subgr mn 3)	Mechanical Life	×	ESCC 3602 Para. 8.14	17-22	3	0	
Endurance Subgroup 1 (Column 3)	Seal (Fine and Gross Leak)	⊠	MIL-STD-202, Test Method 112	17-22	3	0	
Endura 1 (External Visual Inspection	⊠	ESCC Basic Specification No. 20500	17-22	3	0	
2.6	Resistive Life	⊠	ESCC 3602 Para. 8.11.3	17-22 17-26	12	0	
Endurance Subgroup 2	Seal (Fine and Gross Leak)	⊠	MIL-STD-202, Test Method 112	17-22 17-26	12	0	
Sub	External Visual Inspection	⊠	ESCC Basic Specification No. 20500	17-22 17-26	12	0	
	Solderability	⊠	MIL-STD-202, Test Method 208	17-22	3	0	
ability	Overload		ESCC 3602 Para. 8.16	17-22	3	0	
Assembly Capability Subgroup	Permanence of Marking	⊠	ESCC Basic Specification No. 24800	17-22	3	0	
Assei	Terminal Strength	⊠	MIL-STD-202, Test Method 211	17-22	3	0	
	Seal (Fine and Gross Leak)	×	MIL-STD-202, Test Method 112	17-22	3	0	
onal							
Additional Tests							



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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.