

Resistor, Heater, Flexible, Single and Double Layer, based on type FHK Component Title:

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Appl. No.

1		E	xecutive	Member:	: C1	NES	•		Dat	te: 23/02/2021		325D	
Components (inc	luding series	s and famil	ies) subi	mitted for	Extens	ion of Qu	alification	і Арі	proval	:			1
ESCC COMPONENT NO.	VARIA	ANTS	RAN	GE OF C	OMPO	MPONENTS BASED ON)	TEST VEHICLE / S		COMPONENT SIMILAR		
4009/003							FHK			FHK1154 FHK1231 FHK1470			
02										FHK1138			
	03									-			
Component N	lanufacturer	r 2	Loca	ation of M	lanufac	turing Pla	ant(s)	3	Date	of original qualification	n appro	val:	4
MINCO SAS			MINCO SAS, Zone Industrielle 09310 ASTON, FRANCE				Date: 22/03/2013 Certificate Ref No. 325						
		5						6					7
ESCC Specificati Maintenance of q			Deviations to LVT testing and Detail Specification used:				lification Extension Re rence and date:	port					
Generic 4009	9 lss.	.: 7	No ⊠ Yes □ (supply details in Box 15)			TRESCC_37_0, January 2020 TRESCC_40_0, January 2021							
Detail(s) 4009/003 Iss.: 5, 6			Deviation from current Specifications:										
			No ⊠ Yes □ (Supply details)										
													8
Summary of proc first)	urement or e	equivalent	test resu	ılts during	curren	nt validity	period in	supp	ort of	this application (those	to ESC	C listed	
Project Name Testing Leve				LAT		I	Date code)		Quantity	Deliver	ed	
Main Customers : Airbus DS										2019 : 439 2020 : 291			
SAFT										2019 : 331 2020 : 136			
PID changes since start of qualification			9	Cui	rrent PID	Verified	by:	_	A. Bonzi, CNES			10	
None 🗆										Name of Excutive Re	presenta	ative	
Minor* □					Ref	f No:	IC07						
Major* ⊠	*Provide d	etails in bo	X:		Issi	ue:	4			Date	: 2	2/02/2021	
					Rev	v Date:	18/02/2	2021					1
Current Manufact	uring facilitis	as siirvava	d bv· 「	D. Lacomb	be ESA	& JP Bu	ssenot.Cl	NES	on	23	/10/2019)	11
(Na				me of I	me of Executive			_ 011		(Date)	<u>, </u>		
Satisfactory:	Yes	S 🛛	No	□		e) (plain							
Report Reference		ES/DSO/A	Q/CQ-2	019-1840	2								

	APPLICATIO	N FOR EXT	ENSION	OF ESCC Q	JALIFICATION APPROVAL	Page 2
ESCC	Component Resistor, Heater, Flexible, Single and Double Layer, based of title: type FHK				e and Double Layer, based on	Appl. No.
	Executive Member:	CNES			Date: 23/02/2021	325D
						12
Failure Analysis, DPA, NCCS availab	le: Yes	⊠ No		(Supply data)	NCCS 2CMIN001	
	. =					
Ref. No's and purposes: 2CMIN00	1: Embedded forei	gn materials	on 2 part	s submitted	to chart F4 (Closed and appende	ed)
The undersigned hereby certifies on b	schalf of the ESCC	· Evocutivo	that the	shove inform	ation is correct:	13
that the appropriate documentation ha	as been evaluated	; - that full co	mpliance	to all ESCC	requirements is evidence	-1¢ -¢
(except as stated in box 15;) - that the CNES as the responsible Executive						-
Date: 23/02/2021					JP. BUSSENG	W sere
Date. 25/02/2021					(Signature of the Executi	
Continuation of Boxes above:						14
						1

LJCC

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and Safety Department

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Non con	npliance to ESCC_requirements:		-	15
No.:	Specification	Paragraph	Non compliance	
Addition	l al tacks required to achieve full compli	 ance for ESCC qualification or rationale for	accentability of non-compliance:	16
Executiv	e Manager Disposition			17
Applicati Approva Action /	on Yes ⊠ No □ l: Remarks:		Digitally signed by Britta Schad Date: 2021.02.2	
Date:			Date: 2021.02.2 18:55:03 +01'00 B. Schade: Head of the Product Assu)'



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Executive CNES Date: 23/02/2021 Member:

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

Tests conducted in compliance with:

ESCC 4009 generic specification; Chart F4 (for ESCC/QPL parts);

Or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

FHK1154 (4009000301) Double layer, single element , WA, DC 1937AA	FHK1231 (400900301) Single Layer, Double Element, WA, DC 2030AA
FHK1470 (400900301) Double Layer, double Element (1 element per layer), WA, DC 2035AA	FHK1138 (400900302) Single Layer, Single Element, FEP, DC 2027AA

Detail Specification reference: 4009/003

Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	N° of Rejects	Comments if not performed. Comments on Rejection
hanical	Robustness of Terminations	×	IEC 60068-2-21	2030AA 2035AA 2027AA	5 5 5	0	
Environmental/ Mechanical Subgroup	Climatic Sequence	×	ESCC 4009, Para. 8.7	2030AA 2035AA 2027AA	5 5 5	0	
Enviror	External Visual Inspection	×	ESCC 20500	2030AA 2035AA 2027AA	5 5 5	0	
group	Operating Life		ESCC 4009, Para. 8.8	1937AA 2030AA 2035AA 2027AA	5 5 5 5	0	
Endurance Subgroup	External Visual Inspection		ESCC 20500	1937AA 2030AA 2035AA 2027AA	5 5 5 5	0	
Endu	Permanence of marking	×	ESCC 24800	1937AA 2030AA 2035AA 2027AA	2 2 2 2	0	
<u>la</u>							
Additional							
Ac							



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Executive **CNES** Member:

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

NOTEGON	THE COMMETTION OF THE ATTENDATION FOR EGGG QUALIFICATION EXTENSION ATT NOVAL
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 18 Fill in Table as requested.

representative for ESA, and dated.

Box 17

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'.

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

Any additional action deemed necessary by the Executive Member to bring the submitted data to a standard likely **Box 21** to be accepted by the ESCC Executive should be listed herein or the reason(s) to accept the noncompliance.

Box 22 Additional Comments.