



# APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title: **SWITCHES, THERMOSTATIC,BIMETALLIC, SPST,  
OPENING CONTACT,BASED ON TYPE TH 47**

Executive Member: CNES

Date: 15/06/2021

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Components (including series and families) submitted for Extension of Qualification Approval:						1
ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR	
3702 001	01 to 03	Grade Z and Grade Y	Type TH 47	3702 001 01B 045 040 HY	Variants 02, 03	
3702 002	01 to 06	Grade Z and Grade Y	Type TH 473	-	Variants 01 to 06	
Component Manufacturer COMPEA		Location of Manufacturing Plant(s) Bagnolet 93170 - France		Date of original qualification approval: Date: 24/03/2004  Certificate Ref No. 275		2 3 4
ESCC Specifications used for Maintenance of qualification testing: Generic: 3702 Issue: 06  Detail(s): 3702 001 Issue: 07 + DCR 1400		Deviations to LVT testing and Detail Specification used: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (supply details in Box 15)  Deviation from current Specifications: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (Supply details)		Qualification Extension Report reference and date: 275H MoQ report TH-47 2018-2020		5 6 7
Summary of procurement or equivalent test results during current validity period in support of this application (those to ESCC listed first)						8
Project Name	Testing Level	LAT	Date code	Quantity Delivered		
See item 10.of MoQ Report:						
Date codes Delivered during VOQ2018-2020.pdf						
PID changes since start of qualification		Current PID Verified by:		CNES		9 10
None <input type="checkbox"/> Minor* <input type="checkbox"/> Major* <input checked="" type="checkbox"/> *Provide details in box:		Ref No: PRD-PROTH47 Issue: N Rev Date: 01/09/2020		Name of Agency Representative  Date: 30/09/2020		
Current Manufacturing facilities surveyed by: L. Baczkowski, CNES on 01/07/2021 (Name of Agency Representative) (Date)						11
Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain						
Report Reference: DSO/AQ/CQ-2021.0009485						

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Failure Analysis, DPA, NCCS available: Yes ☒ No ☐ (Supply data)

Ref. No's and purposes: 2CCMP001: Maintenance of Qualification datapack not delivered on time. 2CCMP001 iss3 as NCCS close-out is papended.

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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 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.

Date: 16/06/2021

JP. BUSSENOT

(Signature of the Executive Coordinator)

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Continuation of Boxes above:

Box 10: PID's Changes:

- Addition of a new final finish type 19 of ESCC 23500 (body and connections) and associated subcontractor. See MoQ report, item 0, ref. 2020.06.25-CAPA2020-141-Rev2 dated 22/03/2021.

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Non-compliance to ESCC requirements:

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No.:	Specification	Paragraph	Non compliance

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

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Executive Manager Disposition

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Application      Yes   ☒      No   ☐  
Approval:  
Action / Remarks:

Date:

**Britta  
Schade**Digitally signed  
by Britta Schade  
Date: 2021.08.31  
10:55:50 +02'00'B. Schade: Head of the Product Assurance  
and Safety Department



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

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Tests conducted in compliance with:

- ESCC 3702 generic specification; Chart F4 (for ESCC/QPL parts);
- or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

ESCC 370200101B045040HY DC 2042 (TH4701BHY045040 Lot Id. 20001007) – See  
appended distribution of parts depending on the disc manufacturing process and the  
thermos-switches final finish (body and connections)

Detail Specification reference: 3702/001 issue 7

Chart F4	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Environmental / Mechanical Subgroup 1A	Rapid Change of Temperature	<input type="checkbox"/>	IEC Publication No. 60068-2-14	2042	3 + 6	0	
	Vibration	<input type="checkbox"/>	IEC Publication No. 60068-2-6	2042	3 + 6	0	
	Shock	<input type="checkbox"/>	IEC Publication No. 60068-2-27	2042	3 + 6	0	
	Seal Test	<input type="checkbox"/>	IEC Publication No. 60068-2-17	2042	3 + 6	0	
	Electrical and Thermal Measurements	<input type="checkbox"/>	Table 2 of the Detail Specification	2042	3 + 6	0	
	External Visual Inspection	<input type="checkbox"/>	ESCC Basic Specification No. 20500	2042	3 + 6	0	
Environmental / Mechanical Subgroup 1B	Resistance to Soldering Heat	<input type="checkbox"/>	IEC Publication No. 60068-2-20	2042	3 + 3	0	
	Damp Heat	<input type="checkbox"/>	IEC Publication No. 60068-2-78	2042	3 + 3	0	
	Seal Test	<input type="checkbox"/>	IEC Publication No. 60068-2-17	2042	3 + 3	0	
	Electrical and Thermal Measurements	<input type="checkbox"/>	Table 2 of the Detail Specification	2042	3 + 3	0	
	External Visual Inspection	<input type="checkbox"/>	ESCC Basic Specification No. 20500	2042	3 + 3	0	
Endurance Subgroup 2A	Response Time	<input type="checkbox"/>	ESCC 3702 Para. 8.12	2042	4 + 4	0	
	Operating Life	<input type="checkbox"/>	ESCC 3702 Para. 8.13	2042	4 + 4	0	
	Seal Test	<input type="checkbox"/>	IEC Publication No. 60068-2-17	2042	4 + 4	0	
	Electrical and Thermal Measurements	<input type="checkbox"/>	Table 2 of the Detail Specification	2042	4 + 4	0	
	External Visual Inspection	<input type="checkbox"/>	ESCC Basic Specification No. 20500	2042	4 + 4	0	
Endurance Subgroup 2B	Response Time	<input type="checkbox"/>	ESCC 3702 Para. 8.12	2042	0 + 3	0	
	Overload	<input type="checkbox"/>	ESCC 3702 Para. 8.14	2042	0 + 3	0	
	Seal Test	<input type="checkbox"/>	IEC Publication No. 60068-2-17	2042	0 + 3	0	



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	Electrical and Thermal Measurements	<input type="checkbox"/>	Table 2 of the Detail Specification	2042	0 + 3	0	
	External Visual Inspection	<input type="checkbox"/>	ESCC Basic Specification No. 20500	2042	0 + 3	0	
Endurance Subgroup 2C	High Temperature Storage	<input type="checkbox"/>	ESCC 3702 Para. 8.15	2042	0 + 2	0	
	Low Temperature Storage	<input type="checkbox"/>	ESCC 3702 Para. 8.15	2042	0 + 2	0	
	Seal Test	<input type="checkbox"/>	IEC Publication No. 60068-2-17	2042	0 + 2	0	
	Electrical and Thermal Measurements during Endurance Testing	<input type="checkbox"/>	Table 6 of the Detail Specification	2042	0 + 2	0	
	External Visual Inspection	<input type="checkbox"/>	ESCC Basic Specification No. 20500	2042	2 + 2	0	
Assembly Capability Subgroup	Solderability	<input checked="" type="checkbox"/>	IEC Publication No. 60068-2-20	2042	2 + 2	0	
	Permanence of Marking	<input checked="" type="checkbox"/>	ESCC Basic Specification No. 24800	2042	2 + 2	0	
	Robustness of Termination	<input checked="" type="checkbox"/>	IEC Publication No. 60068-2-21	2042	2 + 2	0	
	Seal Test	<input type="checkbox"/>	IEC Publication No. 60068-2-17	2042	2 + 2	0	
	Electrical and Thermal Measurements during Endurance Testing	<input type="checkbox"/>	Table 6 of the Detail Specification	2042	2 + 2	0	
	External Visual Inspection	<input type="checkbox"/>	ESCC Basic Specification No. 20500	2042	2 + 2	0	



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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.