CAPACITOR FILTERS, L-TYPE, FEEDTHROUGH, ELECTROMAGNETIC INTERFERENCE SUPPRESSION, HERMETICALLY SEALED, BASED ON TYPE SFL100

ESCC Detail Specification No. 3008/029

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Pages 1 to 18

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space components
coordination group

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Issue 1	June 1996		
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DOCUMENTATION CHANGE NOTICE

Rev. Letter	Rev. Date	Reference	CHANGE Item	Approved DCR No.
'A'	Apr. '97	P1. Cover page		None
		P2. DCN		None
		P6. Table 1(a)	: For Variants 04, 16, 28, 40, value under 100kHz corrected	221384
			: For Variants 07, 19, 31, 43, value under 100MHz corrected	221384
			: For Variants 09, 21, 33, 45, value under 1.0MHz and 1.0GHz corrected	221384
		P8. Figure 2	: ∅H Max corrected for Case Size 2	221384
'B'	Sept. '98	P1. Cover page		None
		P2. DCN		None
		P13. Table 3	: No. 3, Test Conditions amended	221484
			: Notes, new Note 4 added	221484

TABLE OF CONTENTS

Page

TABLES

FIGURES

APPENDICES (Applicable to specific Manufacturers only)

1. GENERAL

1.1 SCOPE

This specification details the ratings, physical and electrical characteristics, test and inspection data for a Capacitor Filter, L-Type, Feedthrough, Electromagnetic Interference Suppression, Hermetically Sealed, based on Type SFL100. It shall be read in conjunction with ESA/SCC Generic Specification No. 3008, the requirements of which are supplemented herein.

1.2 COMPONENT TYPE VARIANTS

Variants of the basic type capacitor filters specified herein, which are also covered by this specification are given in Table 1(a).

1.3 MAXIMUM RATINGS

The maximum ratings, which shall not be exceeded at any time during use or storage, applicable to the capacitor filters specified herein, are as scheduled in Table 1(b).

1.4 PARAMETER DERATING INFORMATION

The parameter derating information applicable to the capacitor filters specified herein, is shown in Figure 1.

1.5 PHYSICAL DIMENSIONS

The physical dimensions of the capacitor filters specified herein, are shown in Figure 2.

1.6 FUNCTIONAL DIAGRAM

The functional diagram, showing lead identification, of the capacitor filters specified herein, is shown in Figure 3.

2. APPLICABLE DOCUMENTS

The following documents form part of this specification and shall be read in conjunction with it:

(a) ESA/SCC Generic Specification No. 3008 for Capacitors and Capacitor Filters, Feedthrough.

(b) MIL-STD-202, Test Methods for Electronic and Electrical Component Parts.

3. TERMS, DEFINITIONS, ABBREVIATIONS, SYMBOLS AND UNITS

For the purpose of this specification, the terms, definitions, abbreviations, symbols and units specified in ESA/SCC Basic Specification No. 21300 shall apply. In addition, the following abbreviations are used:-

V_T = Test Voltage.

TABLE 1(a) - TYPE VARIANTS

(1) Variant (Note 1)	(2) Rated Voltage U_R (V)		(3) Insulation Resistance Ri (MΩ)		(4) Voltage Proof VP	(5) Voltage Drop V_{dr}	(6) d.c. Resist. Rs	(7) Rated Current I_R	(8) Capacitance C	(9) Insertion Loss (dB) With full Rated Current applied					(10) Case Size (Note 1)	(11) Weight	(12) Inductor Position IN/OUT (Note 2)
	(a) −55°C/ +85°C	(b) +85°C/ +125°C	(a) −55°C/ +85°C	(b) +125°C	(V)	(mV)	(mΩ)	(A)	(μF)	100kHz	1.0MHz	10MHz	100MHz	1.0GHz		(g)	
01, 13, 25, 37	80	50	100	10	200	60	4.0	15	0.8	20	40	60	70	70	1	4.0	O
02, 14, 26, 38	50	50	100	10	125	100	10	10	1.6	26	44	60	70	70	2	8.0	O
03, 15, 27, 39	100	70	1000	100	250	75	15	5.0	0.656	19	38	55	70	70	2	8.0	I
04, 16, 28, 40	150	100	1000	100	375	120	8.0	15	0.312	10	32	50	60	70	3	5.5	O
05, 17, 29, 41	50	40	100	10	125	150	10	15	0.80	20	45	65	70	70	2	8.0	I
06, 18, 30, 42	300	200	100	10	600	60	4.0	15	0.264	12	30	50	60	70	3	5.5	O
07, 19, 31, 43	200	200	100	10	500	60	4.0	15	0.120	5.0	24	45	58	70	4	4.0	O
08, 20, 32, 44	50	40	100	10	125	100	10	10	1.6	26	44	55	70	70	2	8.0	I
09, 21, 33, 45	100	50	100	10	250	150	10	15	0.0176	-	7.0	25	40	57	1	4.0	O
10, 22, 34, 46	200	200	1000	100	500	100	10	10	0.144	6.0	25	45	55	70	2	8.0	I
11, 23, 35, 47	100	70	100	10	250	40	4.0	10	1.2	25	44	60	70	70	2	8.0	O
12, 24, 36, 48	80	50	100	10	200	60	4.0	15	1.2	26	44	60	65	70	1	4.0	O

NOTES

1. See the Table below and Figure 2 for physical characteristics.

VARIANT	CASE THREAD E	LOCK WASHER	CASE FINISH
01 to 12	I : M6×0.75	Fan	Silver plated
13 to 24	I : M6×0.75	Fan	Tin-lead plated
25 to 36	U : $\frac{1}{4}$ - 28 UNF	Tooth	Silver plated
37 to 48	U : $\frac{1}{4}$ - 28 UNF	Tooth	Tin-lead plated

2. See Figure 3.

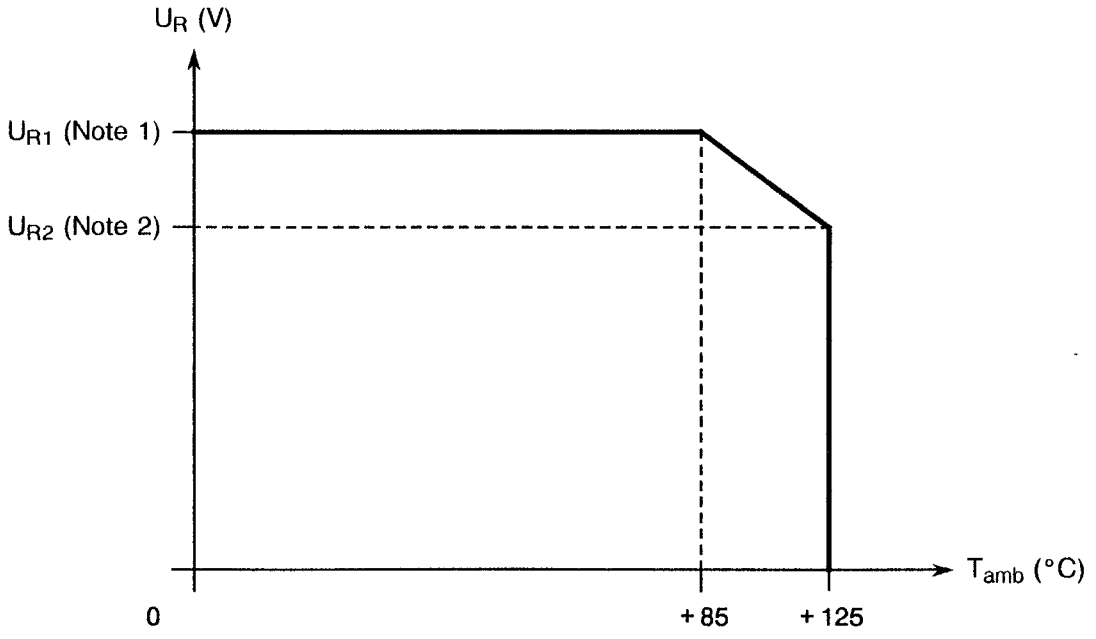
TABLE 1(b) - MAXIMUM RATINGS

No.	Characteristic	Symbol	Maximum Ratings	Unit	Remarks
1	Rated d.c. Voltage	U_R	See Table 1(a) Column 2	V	Notes 1 and 2
2	Voltage Drop	V_{dr}	See Table 1(a) Column 5	mV	
3	d.c. Resistance	Rs	See Table 1(a) Column 6	mΩ	
4	Rated Current	I_R	See Table 1(a) Column 7	A	Note 3
5	Torque	T_{qe}	0.8	Nm	
6	Operating Temperature Range	T_{op}	−55 to +125	°C	T_{amb}
7	Storage Temperature Range	T_{stg}	−55 to +125	°C	
8	Soldering Temperature	T_{sol}	+260	°C	Note 4

NOTES

1. At $T_{amb} \leq +85°C$. For derating at $T_{amb} > +85°C$, see Figure 1.
2. The addition of d.c. applied voltage and ripple voltage shall never exceed the rated d.c. voltage.
3. d.c. and low frequency.
4. Duration 10 seconds maximum at a distance of not less than 2.0mm from the device body and the same lead shall not be resoldered until 3 minutes have elapsed.

FIGURE 1 - PARAMETER DERATING INFORMATION

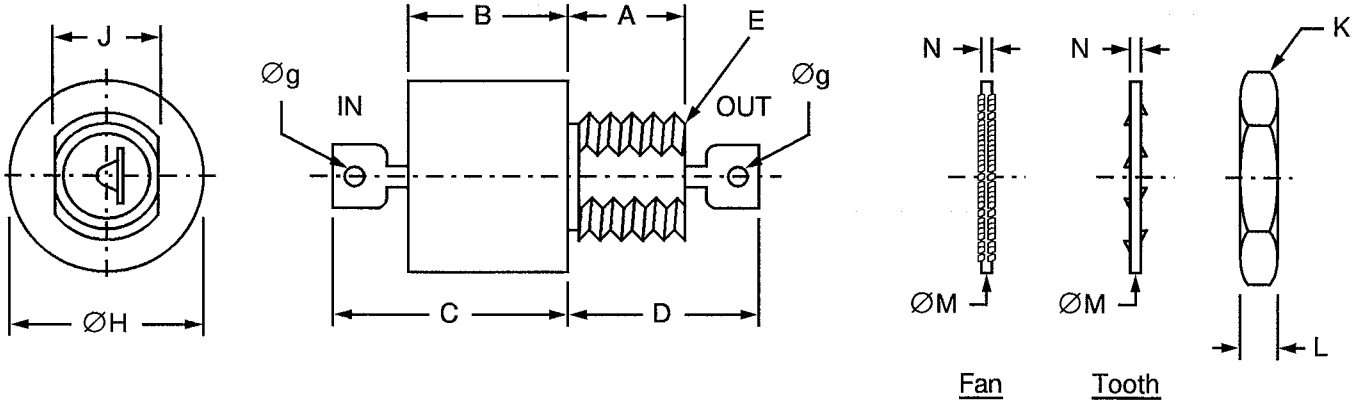


Rated Voltage versus Temperature

NOTES

1. See U_{R1} Voltage value for each variant on Table 1(a), Column 2(a).
2. See U_{R2} Voltage value for each variant on Table 1(a), Column 2(b).

FIGURE 2 - PHYSICAL DIMENSIONS

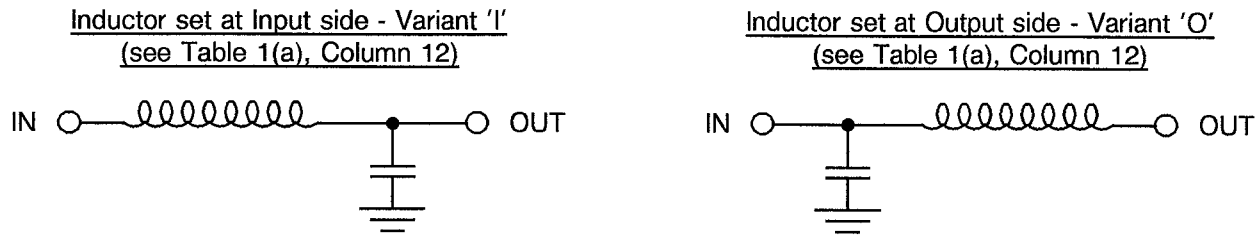


Symbol	Case Size 1		Case Size 2		Case Size 3		Case Size 4		Notes
	Millimetres		Millimetres		Millimetres		Millimetres		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
A	5.10	5.20	5.10	5.20	5.10	5.20	5.10	5.20	
B	4.50	4.80	14.00	14.30	6.50	6.80	5.00	5.30	
C	-	8.80	-	18.30	-	10.80	-	9.40	1
D	-	9.00	-	9.00	-	9.00	-	9.00	2
E	See Table 1(a)		See Table 1(a)		See Table 1(a)		See Table 1(a)		Thread
Øg	1.50		1.50		1.50		1.50		
ØH	9.70	9.90	9.70	9.90	9.70	9.90	9.70	9.90	
J	4.90	5.10	4.90	5.10	4.90	5.10	4.90	5.10	
K	-	8.00	-	8.00	-	8.00	-	8.00	Across flats
L	-	2.50	-	2.50	-	2.50	-	2.50	
ØM	-	9.40	-	9.40	-	9.40	-	9.40	Variants 01 to 24
	-	10.20	-	10.20	-	10.20	-	10.20	Variants 25 to 48
N	-	0.40	-	0.40	-	0.40	-	0.40	Variants 01 to 24
	-	0.60	-	0.60	-	0.60	-	0.60	Variants 25 to 48

NOTES

1. Lead finish shall commence not more than 1.5mm from encapsulant.
2. The terminals are defined as rigid.

FIGURE 3 - FUNCTIONAL DIAGRAM



4. REQUIREMENTS

4.1 GENERAL

The complete requirements for procurement of the components specified herein are stated in this specification and ESA/SCC Generic Specification No. 3008 for Capacitors and Capacitor Filters, Feedthrough. Deviations from the Generic Specification, applicable to this specification only, are detailed in Para. 4.2.

Deviations from the applicable Generic Specification and this Detail Specification, formally agreed with specific Manufacturers on the basis that the alternative requirements are equivalent to the ESA/SCC requirements and do not affect the components' reliability, are listed in the appendices attached to this specification.

4.2 DEVIATIONS FROM GENERIC SPECIFICATION

4.2.1 Deviations from Special In-process Controls

None.

4.2.2 Deviations from Final Production Tests (Chart II)

(a) Para. 9.7, External Visual Inspection: For variants with a silver plated case, a change of shade is acceptable.

4.2.3 Deviations from Burn-in and Electrical Measurements (Chart III)

(a) Para. 9.7, External Visual Inspection: For variants with a silver plated case, a change of shade is acceptable.

4.2.4 Deviations from Qualification Tests (Chart IV)

(a) Para. 9.7, External Visual Inspection: For variants with a silver plated case, a change of shade is acceptable.

4.2.5 Deviations from Lot Acceptance Tests (Chart V)

(a) Para. 9.7, External Visual Inspection: For variants with a silver plated case, a change of shade is acceptable.

4.3 MECHANICAL REQUIREMENTS

4.3.1 Dimension Check

The dimensions of the components specified herein shall be verified in accordance with the requirements set out in Para. 9.5 of ESA/SCC Generic Specification No. 3008 and they shall conform to those shown in Figure 2 of this specification.

4.3.2 Weight

The maximum weight of the components specified herein shall be as given in Table 1(a).

4.3.3 Robustness of Terminations

The requirements for the robustness of terminations tests are specified in Section 9 of ESA/SCC Generic Specification No. 3008. The leads are defined as "Rigid".

- Test Ua1, Tensile : The load shall be 20N.

4.3.4 Solderability

The requirements for solderability testing are specified in Section 9 of ESA/SCC Generic Specification No. 3008.

Test Method 1 shall apply and a thermal screen of 1.6mm may be used. The terminal shall be immersed up to the terminal slot which shall be fully filled.

4.3.5 Seal Test

The requirements for seal testing are specified in Section 9 of ESA/SCC Generic Specification No. 3008.

The limit for fine leak shall be 5.10^{-3} Pa.cm^3/s [5.10^{-8} bar.cm^3/s].

4.4 MATERIALS AND FINISHES

The materials and finishes shall be as specified herein. Where a definite material is not specified, a material which will enable the components specified herein to meet the performance requirements of this specification shall be used. Acceptance or approval of any constituent material does not guarantee acceptance of the finished product.

4.4.1 Case

The case shall be silver plated or tin-lead plated brass and hermetically sealed with hard glass seals (see Table 1(a)).

4.4.2 Lead Material and Finish

The lead material shall be Type 'G' with Type '3 or 4' finish in accordance with the requirements of ESA/SCC Basic Specification No. 23500.

4.4.3 Accessories

Nut : As per Figure 2, brass, silver-plated.

Lock-Washer : As per Figure 2, bronze, silver-plated.

4.5 MARKING

4.5.1 General

The marking of components delivered to this specification shall be in accordance with the requirements of ESA/SCC Basic Specification No. 21700 and the following paragraphs. When the component is too small to accommodate all of the marking specified, as much as space permits shall be marked and the marking information, in full, shall accompany the component in its primary package.

The information to be marked and the order of precedence, shall be as follows:-

(a) Lead Identification.

(b) The SCC Component Number.

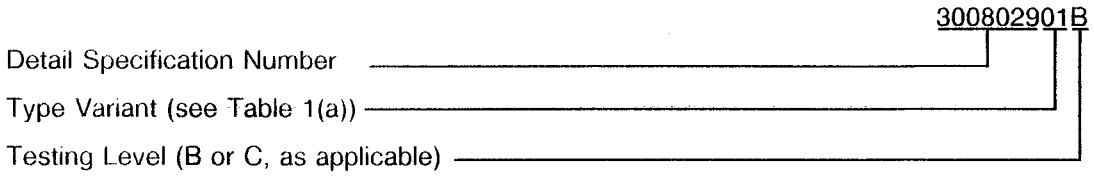
(c) Traceability Information.

4.5.2 Lead Identification

Not applicable.

4.5.3 The SCC Component Number

The SCC Component Number shall be constituted and marked as follows:-



4.5.4 Traceability Information

Each component shall be marked in respect of traceability information in accordance with the requirements of ESA/SCC Basic Specification No. 21700.

4.6 ELECTRICAL MEASUREMENTS

4.6.1 Electrical Measurements at Room Temperature

The parameters to be measured at room temperature are scheduled in Table 2. Unless otherwise specified, measurements shall be performed at $T_{amb} = +22 \pm 3$ °C.

4.6.2 Electrical Measurements at High and Low Temperatures

The parameters to be measured at high and low temperatures are scheduled in Table 3. Measurements shall be performed at $T_{amb} = 125(+0-5)$ °C and $-55(+5-0)$ °C respectively.

4.6.3 Circuits for Electrical Measurements (Figure 4)

Not applicable.

4.7 BURN-IN TESTS

4.7.1 Parameter Drift Values

The parameter drift values applicable to burn-in are as specified in Table 4 of this specification. Unless otherwise stated, measurements shall be performed at $T_{amb} = +22 \pm 3$ °C. The parameter drift values (Δ) applicable to the parameters scheduled shall not be exceeded. In addition to these drift value requirements for a given parameter, the appropriate limit values specified in Table 2 shall not be exceeded.

4.7.2 Conditions for Burn-in

The requirements for burn-in are specified in Section 7 of ESA/SCC Generic Specification No. 3008. The conditions for burn-in shall be as specified in Table 5(a) of this specification.

4.7.3 Electrical Circuit for Burn-in (Figure 5)

Not applicable.

TABLE 2 - ELECTRICAL MEASUREMENTS AT ROOM TEMPERATURE - d.c. PARAMETERS

No.	Characteristics	Symbol	ESA/SCC 3008 Test Method	Test Conditions	Limits		Unit
					Min	Max	
1	Voltage Drop	V_{dr}	Para. 9.4.1.5	I_R = Note 1	-	Note 2	V
2	Voltage Proof	VP	Para. 9.4.1.2		Note 3	-	V
3	Insulation Resistance	Ri	Para. 9.4.1.3	Para. 9.4.1.3	Note 4	-	MΩ

NOTES

1. See Column 7 of Table 1(a).
2. See Column 5 of Table 1(a).
3. See Column 4 of Table 1(a).
4. See Column 3(a) of Table 1(a).

TABLE 2 - ELECTRICAL MEASUREMENTS AT ROOM TEMPERATURE - a.c. PARAMETERS

No.	Characteristics	Symbol	ESA/SCC 3008 Test Method	Test Conditions	Limits		Unit
					Min	Max	
4	Insertion Loss	I_{L1}	Para. 9.4.1.4	f = 100kHz Note 1	Note 2	-	dB
5	Insertion Loss	I_{L2}	Para. 9.4.1.4	f = 1.0MHz Note 3	Note 2	-	dB
6	Insertion Loss	I_{L3}	Para. 9.4.1.4	f = 10MHz Note 3	Note 2	-	dB
7	Insertion Loss	I_{L4}	Para. 9.4.1.4	f = 100MHz Note 3	Note 2	-	dB
8	Insertion Loss	I_{L5}	Para. 9.4.1.4	f = 1.0GHz Note 1	Note 2	-	dB
9	Capacitance	C	Para. 9.4.1.1	Para. 9.4.1.1	Note 4	-	µF

NOTES

1. Measurements at this frequency to be made only during Chart IV testing.
2. See Column 9 of Table 1(a).
3. Measurements at rated current to be made only during Chart IV testing in Subgroups II or III. Measurements without load current to be made during Charts II, III and V.
4. See Column 8 of Table 1(a).

TABLE 3 - ELECTRICAL MEASUREMENTS AT HIGH AND LOW TEMPERATURES

No.	Characteristics	Symbol	ESA/SCC 3008 Test Method	Test Conditions (Note 1)	Limits		Unit
					Min	Max	
3	Insulation Resistance	Ri	Para. 9.4.1.3	Para. 9.4.1.3 T_{amb} = +125°C (Note 4)	Note 2	-	MΩ
5	Insertion Loss	I_{L2}	Para. 9.4.1.4	f = 1.0MHz No current.	Note 3	-	dB
6	Insertion Loss	I_{L3}	Para. 9.4.1.4	f = 10MHz No current.	Note 3	-	dB
7	Insertion Loss	I_{L4}	Para. 9.4.1.4	f = 100MHz No current.	Note 3	-	dB

NOTES

1. If more than 20 units have to be measured, the measurement shall be performed on a sample basis in accordance with Inspection Level I, Table IIA, AQL = 1.0% of IEC Publication No. 410.
2. See Column 3 of Table 1(a).
3. See Column 9 of Table 1(a).
4. Insulation Resistance is to be performed only at high temperature.

FIGURE 4 - CIRCUITS FOR ELECTRICAL MEASUREMENTS

Not applicable.

TABLE 4 - PARAMETER DRIFT VALUES

No.	Characteristics	Symbol	Spec. and/or Test Method	Test Conditions	Change Limits (Δ)	Unit
9	Capacitance Change	$\frac{\Delta C}{C}$	As per Table 2	As per Table 2	± 10	%

TABLE 5(a) - CONDITIONS FOR BURN-IN TESTS

No.	Characteristic	Symbol	Condition	Unit
1	Ambient Temperature	T_{amb}	+ 125(+ 0 − 3)	°C
2	Test Voltage	V_T	$2 \times U_R$ at + 125°C Note 1	V

NOTES

1. Applied between one terminal and the case. See Column 2(b) of Table 1(a) for value of U_R.

TABLE 5(b) - CONDITIONS FOR OPERATING LIFE TESTS

No.	Characteristic	Symbol	Condition	Unit
1	Ambient Temperature	T_{amb}	+ 125(+ 0 − 3)	°C
2	Test Voltage	V_T	$2 \times U_R$ at + 125°C Note 1	V
3	Rated Current	I_R	Note 2	A

NOTES

1. Applied between one terminal and the case. See Column 2(b) of Table 1(a) for value of U_R.
2. To flow between the terminals. See Column 7 of Table 1(a) for value of I_R.

FIGURE 5 - ELECTRICAL CIRCUIT FOR BURN-IN AND OPERATING LIFE TESTS

Not applicable.

4.8 ENVIRONMENTAL AND ENDURANCE TESTS (CHARTS IV AND V OF ESA/SCC GENERIC SPECIFICATION No. 3008)

4.8.1 Measurements and Inspections on Completion of Environmental Tests

The parameters to be measured and inspections to be performed on completion of environmental tests are scheduled in Table 6. Unless otherwise stated, the measurements shall be performed at $T_{amb} = +22 \pm 3$ °C.

4.8.2 Measurements and Inspections at Intermediate Points During Endurance Tests

The parameters to be measured and inspections to be performed at intermediate points during endurance tests are scheduled in Table 6. Unless otherwise stated, the measurements shall be performed at $T_{amb} = +22 \pm 3$ °C.

4.8.3 Measurements and Inspections on Completion of Endurance Tests

The parameters to be measured and inspections to be performed on completion of endurance testing are as scheduled in Table 6. Unless otherwise stated, the measurements shall be performed at $T_{amb} = +22 \pm 3$ °C.

4.8.4 Conditions for Operating Life Tests (Part of Endurance Testing)

The requirements for operating life test are specified in Section 9 of ESA/SCC Generic Specification No. 3008. The conditions for operating life testing shall be as specified in Table 5(b) of this specification.

4.8.5 Electrical Circuit for Operating Life Tests (Figure 5)

Not applicable.

TABLE 6 - MEASUREMENTS AND INSPECTIONS ON COMPLETION OF ENVIRONMENTAL TESTS AND AT INTERMEDIATE POINTS AND ON COMPLETION OF ENDURANCE TESTING

NO.	ESA/SCC GENERIC SPEC. NO. 3008		MEASUREMENTS AND INSPECTIONS		SYMBOL	LIMITS		UNIT
	ENVIRONMENTAL AND ENDURANCE TESTS (1)	TEST METHOD AND CONDITIONS	IDENTIFICATION	CONDITIONS		MIN.	MAX.	
01	Seal Test (Hermetically Sealed)	Para. 9.6 and Para. 4.3.5 of this spec.	Gross Leak	ESA/SCC No. 3008 Para. 9.6.1	-	-	-	
			Fine Leak	ESA/SCC No. 3008 Para. 9.6.2	-	-	-	
02	External Visual Inspection	Para. 9.7 and Paras 4.2.4 and 4.2.5 of this spec.	**Final Measurements** Visual Inspection	ESA/SCC No. 20500	-	-	-	
03	Temperature Rise	Para. 9.9	Temperature Rise	Rated Current (3)	-	-	25	°C
04	Shock	Para. 9.10	**Measurements during Tests**	100% U_R (2) applied No Open or Short Circuits >0.1ms		-	-	
			Final Measurements					
			Visual Examination	No Mechanical Damage	-	-	-	
			Insertion Loss	Table 2 Items 4 to 8	I_L	Table 2	-	
05	Vibration	Para. 9.11	**Measurements during Tests** During Last Cycle	Rated Current (3) and 100% U_R (2) applied No Open or Short Circuits >0.1ms	-	-	-	
			Final Measurements					
			Visual Examination	No Mechanical Damage	-	-	-	
			Insertion Loss	Table 2 Items 4 to 8	I_L	Table 2	-	
06	Accelerated Damp Heat	Before tests, 10 cycles of Para. 9.2 Para. 9.12	**Final Measurements**	After recovery of 4 to 24 hrs				
			Visual Examination	No corrosion or obliteration of marking	-	-	-	
			Voltage Proof	Table 2 Item 2	VP	90% U_R (2)	-	
			Insulation Resistance	Table 2 Item 3	Ri	(4)	-	
			Insertion Loss	Table 2 Items 4 to 8	I_L	Table 2	-	
07	Low Air Pressure	Para. 9.13	**Measurements during Tests**	During last 5 minutes				
			Voltage Proof	Table 2 Item 2	VP	125% U_R (2)	-	
			Visual Examination	No breakdown, flashover, deformation or seepage	-	-	-	
			Visual Examination	No breakdown, flashover, deformation or seepage	-	-	-	
08	Robustness of Terminations	Para. 9.14 and Para. 4.3.3 of this spec.	**Final Measurements** Visual Examination	No damage	-	-	-	
			Voltage Drop	Table 2 Item 1	V_{dr}	-	Table 2	

NOTES

1. The tests in this Table refer to either Chart IV or V and shall be used as applicable.
2. For U_R, see Column 2(a) of Table 1(a).
3. For I_R, see Column 7 of Table 1(a).
4. Greater than 10% of the value given in Table 2.
5. Greater than 50% of the value given in Table 2.

TABLE 6 - MEASUREMENTS AND INSPECTIONS ON COMPLETION OF ENVIRONMENTAL TESTS AND AT INTERMEDIATE POINTS AND ON COMPLETION OF ENDURANCE TESTING (CONT'D)

NO.	ESA/SCC GENERIC SPEC. NO. 3008		MEASUREMENTS AND INSPECTIONS		SYMBOL	LIMITS		UNIT
	ENVIRONMENTAL AND ENDURANCE TESTS (1)	TEST METHOD AND CONDITIONS	IDENTIFICATION	CONDITIONS		MIN.	MAX.	
09	Immersion	Before tests, 10 cycles of Para. 9.2 Para. 9.15	**Final Measurements**	After recovery of 4 to 24 hrs				
			Visual Examination	No obliteration of marking and harmful corrosion	-	-	-	
			Voltage Proof	Table 2 Item 2	VP	90% U_R (2)	-	
			Insulation Resistance	Table 2 Item 3	Ri	(4)	-	
			Insertion Loss	Table 2 Items 4 to 8	I_L	Table 2	-	
10	Overload	Para. 9.16		140% of Rated Current (3) for 15 mins min.				
			Final Measurements					
			Insulation Resistance	Table 2 Item 3	Ri	Table 2	-	
			Voltage Drop	Table 2 Item 1	V_{dr}	-	Table 2	
			Visual Examination	No damage	-	-	-	
11	Resistance to Soldering Heat	Para. 9.17	**Final Measurements**	After recovery of 1 to 2 hrs				
			Visual Examination	No damage	-	-	-	
			Insulation Resistance	Table 2 Item 3	Ri	Table 2	-	
			Insertion Loss	Table 2 Items 4 to 8	I_L	Table 2	-	
12	Solderability	Para. 9.18 and Para. 4.3.4 of this spec.	**Final Measurements**					
			Visual Examination	IEC No. 68-2-20 Para. 4.6.4, 4.7.4 or 4.9.3	-	-	-	
13	Operating Life	Para. 9.19	**Initial Measurements**					
			Capacitance	Table 2 Item 9	C	Record values		
			During Tests	No Open or Short Circuit	-	-	-	
			Intermediate Measurements					
			Insulation Resistance	Table 3 Item 3 After 24 hrs recovery	Ri	Table 3	-	
			Voltage Proof	Table 2 Item 2	VP	90% U_R (2)	-	
			Insulation Resistance	Table 2 Item 3	Ri	(5)	-	
			Insertion Loss	Table 2 Items 4 to 8	I_L	Table 2	-	
			Capacitance Change	Table 2 Item 9	$\Delta C/C$	-	Table 4	
			Final Measurements					
			Insulation Resistance	Table 3 Item 3 After 24 hrs recovery	Ri	Table 3	-	
			Voltage Proof	Table 2 Item 2	VP	90% U_R (2)	-	
			Insulation Resistance	Table 2 Item 3	Ri	(5)	-	
			Insertion Loss	Table 2 Items 4 to 8	I_L	Table 2	-	
			Capacitance Change	Table 2 Item 9	$\Delta C/C$	-	Table 4	
14	Corrosion	Para. 9.20	**Final Measurements**					
			Visual Examination	No corrosion, damage or obliteration of marking	-	-	-	
15	Permanence of Marking	Para. 9.21	**Final Measurements**					
			Visual Examination	No corrosion or obliteration of marking	-	-	-	
16	Damp Heat (Non-hermetically Sealed)	Para. 9.24	Not applicable.					

NOTES: See Page 16.

APPENDIX 'A'

AGREED DEVIATIONS FOR EUROFARAD (F)

ITEMS AFFECTED	DESCRIPTION OF DEVIATIONS
Paras. 4.2.2 and 4.2.3	(a) Para. 9.4.1.5, Voltage Drop: Voltage Drop may be performed as a d.c. Resistance measurement in accordance with MIL-STD-202, Method 303. In this case, the maximum value of d.c. Resistance (Rs) shall be as specified in Column 6 of Table 1(a).