0.5 & 0.8 mm FASTON VARIABLE THICKNESS TAB PRODUCT SPECIFICATION

1. SCOPE

1.1. Content

This specification covers the electrical, mechanical and environmental performance requirements for 187 FASTON variable thickness tab terminal.

1.2. Qualification

When tests are performed on the subject product line, procedures specified in Figure 1 shall be used. All inspections shall be performed using the applicable inspection plan and product drawing.

1.3. Qualification Test Results

Successful qualification testing on the subject product line has been completed. The Qualification Test Report number is 501-106242.

2. APPLICABLE DOCUMENTS AND FORMS

The following documents and forms constitute a part of this specification to the extent specified herein. Unless otherwise indicated, the latest edition of the document applies.

2.1. TE Documents

- 108-106242: Application Specification
- 501-106242: Qualification Test Report
- Production drawing:2293255/2293895

2.2. Industry Documents

- EIA-364: Electrical Connector/Socket Test Procedures Including Environmental Classifications
- UL310: UL Standard for Safety Electrical Quick-Connect Terminals
- IEC61210: Flat quick-connect terminations for electrical copper conductors

3. REQUIREMENTS

3.1. Design and Construction

Product shall be of the design, construction, materials and physical dimensions specified on the applicable product drawing.

3.2. Ratings

Max Operating Temperature	Voltage	Current
105°C	250V AC	0.5mm² : 4A Max.
		0.75mm²: 5.5A Max.
		1.0mm²: 7.5A Max.
		1.5mm²: 12A Max.
		2.5mm²: 20A Max.

3.3. Test Requirements and Procedures Summary

Unless otherwise specified, all tests shall be performed at ambient environmental conditions.

Figure 1

<table>
<tr><th colspan="2">TEST DESCRIPTION</th><th>PROCEDURE</th><th colspan="4">REQUIREMENT</th></tr>
<tr><td>3.1</td><td>Examination of the product</td><td>Visual,dimensional and functional as per applicable inspection plan and no physical damage. Test Method”EIA-364-18 B”</td><td colspan="4">Meets requirements of the product drawings and no physical damage</td></tr>
<tr><td rowspan="6">3.2</td><td rowspan="6">Crimp tensile strength</td><td rowspan="6">Speed of tensile testing machine to be 50 mm/ min. test until breakage or pull-out as per DIN 46249</td><td colspan="2">Wire section (mm^2)</td><td colspan="2">Minimum tensile force (N)</td></tr>
<tr><td colspan="2">0.5</td><td colspan="2">80</td></tr>
<tr><td colspan="2">0.75</td><td colspan="2">95</td></tr>
<tr><td colspan="2">1.0</td><td colspan="2">115</td></tr>
<tr><td colspan="2">1.5</td><td colspan="2">150</td></tr>
<tr><td colspan="2">2.5</td><td colspan="2">220</td></tr>
<tr><td rowspan="2">3.3</td><td rowspan="2">Mating force</td><td rowspan="2">Measure force to push terminal onto plain test tab at the rate of 50 mm/ min.according to IEC 760</td><td rowspan="2">1st insertion</td><td>0.8mm tab</td><td colspan="2">67N max.</td></tr>
<tr><td>0.5mm tab</td><td colspan="2">35N max.</td></tr>
<tr><td rowspan="2">3.4</td><td rowspan="2">Unmating force</td><td rowspan="2">Measure force to push terminal onto plain test tab at the rate of 50 mm/ min.according to IEC 760</td><td colspan="2">1st extration</td><td colspan="2">10th extration force</td></tr>
<tr><td colspan="2">70N Max.</td><td colspan="2">15N Min.</td></tr>
<tr><td rowspan="7">3.5</td><td rowspan="7">Millivolt drop specified current</td><td colspan="2">Measure between mating and wire, crimped on Faston connector receptacle, including 10mm length of the wire</td><td colspan="4" rowspan="2">Millivolt drop required (without 10mm mV drop of the wire)</td></tr>
<tr><td>Wire section (mm^2)</td><td>Test current(A)</td></tr>
<tr><td>0.5</td><td>5</td><td colspan="4">18mv max</td></tr>
<tr><td>0.75</td><td>8</td><td colspan="4">20mv max</td></tr>
<tr><td>1.0</td><td>10</td><td colspan="4">20mv max</td></tr>
<tr><td>1.5</td><td>14</td><td colspan="4">25mv max</td></tr>
<tr><td>2.5</td><td>20</td><td colspan="4">30mv max</td></tr>
<tr><td>3.6</td><td>Temperature rise</td><td colspan="2">Temperature rise at rated current as per IEC 61210</td><td colspan="4">Temperature rise of any individual termination shall not exceed 30°C (temp. rise = temp. of contact – room temp.)</td></tr>
<tr><td>3.7</td><td>Vibration</td><td colspan="2">Subject receptacle mated with test tab to 10-100-10Hz at 10g acceleration for 2 hours each in X,Y and Z directions – rate 1 octave/ minute amplitude of oscillation 0.75mm</td><td colspan="4">No physical damage. No discontinuities than 1 microsecond</td></tr>
<tr><td>3.8</td><td>Current cycling</td><td colspan="2">Temperature rise at rated current as per IEC 61210, One cycle 45 min. on / 15 min. off, duration of 500 cycles as per IEC 61210</td><td colspan="4">The temperature rise Δt1 of any individual connection is measured after the 24th cycle and Δt2 after the 500th cycle. The Δt2 value shall not exceed by 15°C the Δt1 value and neither rise shall exceed 85°C on transition between contact body and crimp wire barrel</td></tr>
</table>

3.9	Thermal shock	Subject receptacle mated with test tab to 5 cycles, each consisting of: (a) 2 hours at 100±2°C (b) 2 hours at 40±2°C and 90-95% humidity 2 hours at 30±2°C	Voltage drop to be < 2 times the initial value.specified at the point 3.5
3.10	Electrical overload resistance	Subject receptacle mated with test tab to a current 1.5 times the rated value for a duration of 1 hour	No functioning breakdown or damage. Voltage drop to not drop must be same as specified at the point 3.5
3.11	Salt spray	Subject receptacle mated with test tab to 96 hours at 5% concentration of NaCl	Voltage drop to be < 2 times the initial value.specified at the point 3.5

NOTE
Shall meet visual requirements, show no physical damage, and meet requirements of additional tests as specified in the Product Qualification and Requalification Test Sequence shown in Figure 2.

3.4. Product Qualification and Requalification test sequence

Figure.2

	TEST GROUP AND SEQUENCE							
TEST OR EXAMINATION	A	B	C	D	E	F	G	H
VISUAL EXAMINATION	1,8	1,3	1,4	1,3	1,3	1,4	1,4	1,4
MATING FORCE (SINGLE CONTACT)	2							
UNMATING FORCE (SINGLE CONTACT)	4,7							
Durability	5							
Millivolt drop	3,6		3			3	3	3
CRIMP TENSILE STRENGTH		2						
THERMAL SHOCK			2					
TEMPERATURE RISE				2				
CURRENT CYCLING					2			
SALT SPRAY						2		
VIBRATION							2	
ELECTRICAL OVERLOAD RESISTANCE								2

NOTE

(a) Samples shall be prepared in accordance with applicable instruction sheets. They shall be selected at random from current production.

(b) Numbers indicate sequence in which tests are performed.

单击下面可查看定价，库存，交付和生命周期等信息

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