

**AMP\* 6,35 Series FASTON\* Receptacle  
Low Insertion Force (HIGH TEMPERATURE)**

*The product described in this document has not been fully tested to ensure conformance to the requirements outlined below. Therefore, AMP Incorporated makes no representation or warranty, express or implied, that the product will comply with these requirements. Further, AMP Incorporated may change these requirements based on the results of additional testing and evaluation. Contact AMP Engineering for further details.*

**1. SCOPE****1.1 Content**

This specification covers the general requirements for product performance and test methods of AMP\* 6,35 Series FASTON\* Receptacle Low Insertion Force.

These terminals are suitable for consumer Goods application in which low insertion and high retention forces are needed.

**1.2 Qualification**

When tests are performed on the subject product line, the procedures specified in this Product Specification shall be used.

All inspections shall be performed using the applicable inspection plan and product drawing.

**2. APPLICABLE DOCUMENTS**

The following documents form a part of this specification to the extent specified herein. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence.

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**2.1 AMP Specifications**

- A. 109-1: General Requirements for Test Specifications
- B. 114-2036: FASTON Receptacle Contacts, Application of

DR	DATE	APVD	DATE
J. Lázaro	23 Feb 98		
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## **2.2 Commercial Standards**

IEC 512, Publication  
IEC 760, Publication first edition (1983)  
UNE 20-606 (equivalent to IEC 512)  
UNE 20-680-87 (equivalent to IEC 760, 1983)  
DIN 46249 part 1

## **3. REQUIREMENTS**

### **3.1 Design and Construction**

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

### **3.2 Materials**

- A. Receptacle shall be fabricated of the material specified in the applicable product drawing.

Material: Steel, according to DIN 1664/1544  
Finish: Nickel plated

### **3.3 Ratings**

- A. Current/Voltage : 240 Vac at 16 amperes maximum  
B. Operating Temperature: -40° C to +250° C

## **4. PERFORMANCE AND TEST DESCRIPTION**

Terminals shall be designed to meet the electrical, mechanical and environmental performance requirements specified in Figure 1.

#### 4.1 Test Requirements and Procedures Summary

TEST DESCRIPTION	REQUIREMENT		PROCEDURE
Examination of Product	Meets requirements of product drawing and AMP Specification 114-2036		Visual, dimensional and functional per applicable inspection plan
MECHANICAL			
Insertion Forces	50 N max. individual force		Test shall be performed in accordance with test 13b of UNE 20606/7 or IEC 512-7. <ul style="list-style-type: none"><li>• male tabs AMP PN 1644124 without any plating shall be used or equivalent with hole</li><li>• insertion withdrawal speed shall be 10 mm/min.max.</li><li>• Other details, as especificed in part 16d of UNE 20680 or CEI 760.</li></ul>
Withdrawal Forces	1st withdrawal (N) Maximum 80 Average 30 min. Individual 18 min.  6th withdrawal (N) Average 22 min. Individual 18 min.		
Crimp Tensile	Conduct or secc. mm²  0,5 0,75 1,0 2,5	Minimum Strength (N)  60 80 110 230	Terminals crimped on wires with insulation support. Speed of tensile testing machine 50 mm/min. Test until breakage or pull-out.
ELECTRICAL			
Contact Resistance, Rated current	Wire Size mm²  0,5 0,75 1,0 2,5	Test Current amperes  4 6 8 16	Resistane milliohms max. (Initial)  5 5 5 5
			Measure potential drop of mated contacts according to UNE 20-606-2, test 2b with details specified in UNE 20680 part 3.1 or according to test 2b of IEC 512-2 with details specified in IEC 760 part 13.1
Temperature Rise	Temperature rise of any individual termination shall not exceed 60°C (temp rise= Temp.of conn-Room temp.)		Temperature rise at rated current; according to test 5a of UNE 20606/3 or IEC 512-3 with details specified in part 14.1 of UNE 20680 or IEC 760.
Temperature / Current Cycling	Resistance maximum initial 5 milliohms after 500 cyles shall		Temperature Current / Cycling; Procedure according to test 5.3.2. of

	not exceed the 10 milliohms	DIN 46249 part 1
Corrosion salt spray	Millivolt drop 6 mV/A max. Shall meet the requirements at subsequent tests listed in Figure 2.	Subject unmated conn. 5 to 48 h. at 5% concentration Temperature 35° C ± 2° C PH 6,5 ÷ 7,2 Test shall be performed in accordance with test 11f of UNE 20606-6 or IEC 512-6.

End Figure 1

### 3.6 Connector Test and Sequences

TEST OR EXAMINATION	TEST GROUP (a)					
	1	2	3	4	5	
	TEST SEQUENCE (b)					
Examination of Product	1	1	1	1	1-5	
Insertion Forces	2					
Extraction Forces	3					
Crimp Tensile		2				
Contact Resistance				2-4	2-4	
Temperature Rise			2			
Temperature / Current Cycling				3		
Corrosion Salt Spray					3	

Figure 2

- (a) See paragraph 4.1.A  
 (b) Numbers indicate the sequence in which tests are performed

## 5. QUALITY ASSURANCE PROVISIONS

### 5.1 Qualification Testing

#### A. Sample Selection

Samples shall be prepared in accordance with applicable Instruction Sheets. They shall be selected at random from current production. Each group shall consist of 12 or more samples per wire size.

#### B. Test Sequence

Qualification inspection shall be verified by testing samples as specified in Figure 2.

### C. Acceptance

- (1) Requirements put on test samples, as indicated in the requirements portion of Figure 1, exist as either the upper or lower statistical tolerance limit (95 % confidence, 99 % reliability). All samples tested in accordance with this specification shall meet the stated tolerance limit.
- (2) Failure attributed to equipment, test setup, or operator deficiencies shall not disqualify the product. When product failure occurs, corrective action shall be taken and samples resubmitted for qualification.

## 5.2 Requalification Testing

Requalification shall be established by the cognisant divisional engineering function and may consist of all or any part of the overall qualification program provided that it is conducted within the required time period.

## 5.3 Quality Conformance Inspection

The applicable AMP inspection plan will specify the sampling acceptable quality level to be used. Dimensional and functional requirements shall be in accordance with the applicable product drawing and this specification.