NUMBER: 108-5478

SECURITY CLASSIFICATION: Customer Release

Product Specification

108-5478

DIN 47297 Series 1.0/2.3 Type "D"

1. Scope :

1.1 Contents

This specification covers the requirements for product performance, test methods and quality assurance provisions of DIN 47297 Series 1.0/2.3 Type "D".
Applicable product descriptions and part numbers are as shown in Appendix 1 :

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. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

2.1 AMP Specifications :

A. 109-5000 Test Specification, General Requirements for Test Methods

B. 114- Application Specification

B. 501- 5143 Test Report :

2.2 Commercial Standard and Specifications :

A. DIN 47297

B. DIN 47275

C. DIN 40046

D. DIN IEC 68

LTR	REVISION RECORD	DR	CHK	DATE
O	ECN FJ00-2308-95	H.T	K.S	4-12-95

DR. April. 11. '95 H. Takeuchi
CHK. 12 Apr '95 K. Sato
APP. 12. Apr '95 K. Sato

SHEET 1 OF 6

AMP
AMP (Japan), Ltd.
Kawasaki, Japan

LOC	LOC	NO.	REV.
J	A	108-5478	0

NAME DIN 47297 Series 1.0/2.3 Type "D"

DIST.
PRINT

04/12/95

3. Requirements :

3.1 Design and Construction :

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

3.2 Materials :

A.	Contact :	Male	:	Brass
		Fimale	:	Bellum Copper Alloy
B.	Housing :	Non		
C.	Other :	Shell	:	Brass
		Inner Guide	:	Bellum Copper Alloy
		Ferrule	:	Brass

3.3 Ratings :

A.	Voltage Rating	:	350 V AC (50 Hz)
B.	Temperature Rating	:	−40 °C to 85 °C
C.	Character Inperdance	:	50 Ω

3.4 Performance and Test Descriptions :

The product shall be designed to meet the electrical, mechanical and environmental performance requirements specified in Fig. 2. All tests shall be performéd in the room temperature unless otherwise specified.

3.5 Test Requirements and Procedures Summary :

Para.	Test Items	Requirements	Procedures
3.5.1	Confirmation of Product	Product shall be conforming to the requirements of applicable product drawing and Application Specification.	Visually, dimensionally and functionally inspected per applicable quality inspection plan.
		Electrical Requirements	
3.5.2	Termination Resistance (Low Level)	Outer Conductor 3 mΩ Max. Inner Conductor 10 mΩ Max.	Subject mated connector to 20 mV Max. open circuit at 10 mA.
3.5.3	Insulation Resistance	1000 MΩ Min. (Initial) 200 MΩ Min. (Final)	Impressed voltage 500 V DC. Test between adjacent circuits of unmated connectors. AMP Spec. 109-5302
3.5.4	Dielectric withstanding Voltage	No creeping discharge nor flashover shall occur.	750 VAC for 5 minute. Test between adjacent circuits of unmated connectors. AMP Spec. 109-5301
3.5.5	Retain Low	DC~2 GHz : 0.1 Max.	
		Mechanical Requirements	
3.5.6	Crimp Tensile Strength	Wire size: mm² 4.08, (RG) 179/U 316/U; Crimp Tensile (min.): N (kgf) 25 (2.55)	Apply an axial pull-off load to crimped wire of contact secured on the tester, AMP Spec. 109-5205 Condition
3.5.7	Contact Retention Force	0.2 N (0.02 kgf) Min.	Apply an axial pull-off load to crimped wire. AMP Spec. 109-5212

Fig.2 (to be continued)

Para.	Test Items	Requirements	Procedures
3.5.8	Connector Mating Force	10 N (1.02kgf) Max.	Operation Speed : 100 mm / min. Measure the force required to mate connectors.
3.5.9	Connector Unmating Force	0.9 N (0.09 kgf) Min.	Operation Speed : 100 mm/min. Measure the force required to unmate connectors.
3.5.10	Durability (Repeated Mate / Unmating)	200 mΩ Max. (Final)	Operation Speed : 1500 cycles/hr No. of Cycles : 500 cycles. AMP Spec. 109-5213
3.5.11	Vibration (High Frequency)	200 mΩ Max. (Final)	Vibration Frequency : 10~2000/15 min. Vibration Direction : X-Y-Z Duration : 2 hours each

Fig.2 (End)

3.6 Product Qualification Test Sequence

Test of Examination	Test Group	
	1	2
	Test Sequence (a)	
Confirmation of Product	1	1
Termination Resistance (Low Level)	2, 9	3
Dielectric Strength	4	
Insulation Resistance	3	
Retain Low	5	
Vibration (High Frequency)		2
Connector Mating Force	6	
Connector Unmating Force	7	
Contact Unmating Force	11	
Crimp Tensile Strength	10	
Durability (Repeater mate/Unmate)	8	

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

The applicable product descriptions and part numbers are as shown Appendix 1

Product Part No.	Desctiption
100080-2	DIN 47297, 1.0/2.3 Siemence Type Male "D"
100094-2	DIN 47297, 1.0/2.3 Siemence Type Female "D"
100096-1	DIN 47297, 1.0/2.3 Siemence Type R/A "D"

Appendix 1