090/250 HYB LIF 30P PLUG ASSY

1. Scope

1.1 Content

This specification defines the test method for 090/250 HYB LIF 30P PLUG ASSY.

1.2 Qualification

When testing the named products, the following specified specifications and standards shall be used.
All tests have to be done using the applicable inspection plan and product.

1.3 Applied Product

2005040 090/250 HYB LIF 30P PLUG ASSY.

2. Applicable Documents

The following documents, if they are referred inside this document, are part of this specification.
In case of conflict between the requirements of this specification and the product drawing or in conflict between the requirements of this specification and the referenced documents, this specification has precedence

2.1 TE Connectivity Documents

A. 109-1: General Requirements for Test specifications.

B. Customer Drawings

2005040 090/250 HYB LIF 30P PLUG ASSY

2.2 HKMC specification

ES-91500-00 HKMC Connector General Spec.
MS300-08 HMC Combustibility Spec.
MS300-34 HMC Smell Spec.
MS201-02 HMC Material Spec.

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3. Requirements

No.	Items	Characteristics				Remarks
1	Appearance	No harmful crack, rust, burr, damage, deformation, discoloration etc.				
2	Connector engage and disengage force	18kgf or less				
3	Reverse insertion between housings	It shall not be incorrectly inserted by applying force of 20kgf				
4	Reverse insertion between terminal and housing	5kgf or more				
5	Engage force between terminal and housing	1.5kgf or less				
6	Housing locking strength	10kgf or more (Lever strength)				
7	Terminal retention force	10kgf or more				
8	Terminal engage and disengage force	Type		090	250	
		Engage force		0.3~1.0	0.5~2.0	
		Disengage force		0.15~1.0	0.5~2.1	
9	Crimp strength	SQ	0.3	2.0	4.0	
		Kgf or more	6	20	37.5	
10	Voltage drop	Division		Initial	After endurance	
		090		3 mV/A or less	10 mV/A or less	
		025		3 mV/A or less	10 mV/A or less	
11	Insulation resistance	Division		Initial	After endurance	
		Non-waterproof		100MΩ or more	100MΩ or more	
12	Leakage current	Division		Initial	After endurance	
		Non-waterproof		10 μA or less	10μA or less	
13	High voltage test	There shall be no insulation break.				

< Table 1 >

No.	Items	Characteristics	Remarks
14	Twisting test	See Requirement No: 3.1 / 3.10	
15	CONN engage/Disengage endurance test	See Requirement No: 3.1 / 3.10	
16	Overcurrent cycle test	See Requirement No: 3.1 / 3.10 / 3.14 @ Basic current: 2.4A	
17	Cold temperature test	See Requirement No: 3.1 / 3.10 / 3.11 / 3.12 / 3.14	
18	Cold and hot temperature shock test	See Requirement No: 3.1 / 3.10	
19	High temperature test	See Requirement No: 3.1 / 3.10	
20	Temperature Humidity test	See Requirement No: 3.1 / 3.10 / 3.11 / 3.12	
21	Dust test	See Requirement No: 3.10	
22	Ozone test	See Requirement No: 3.1 / 3.10	
23	Sulfur gas test	See Requirement No: 3.1 / 3.10	
24	Complex environment endurance test	See Requirement No: 3.1 / 3.10 / 3.14 / 3.15	

< Table 2 >

4. Test conditions

4.1 Specimen

Unless there is specific mention, initial sample should use for the test specimen, and test specimen shall be 5EA or more for each cavity. However, if performance is expected to be clearly satisfactory ever by applying load to the same specimen in turn, it is possible to apply multiple test items to the same specimen. In such case, performance shall be satisfied with each item.

4.2 Laboratory condition

Perform each test at designated temperature and humidity. And control humidity at designated absorption ratio for the connector which uses absorbent resin housing.

Temperature: 25 ± 5 ℃, Humidity: 60 ± 20%