

NUMBER: 108 - 5061

Customer
ReleaseSECURITY
CLASSIFICATION:

Wire Size mm ² (MCM)	Test Current (A)	Millivolt Drop (mV)		Tensile Strength kg (min)
		Initial	Final	
500 (1,000)	1,375	4.0	12.0	1,057

Table 1

4.3 Current Cycling:

When tested in accordance with the test method specified in Para. 6.2, millivolt value shall be conforming to the requirements of Para. 4.2.

4.4 Salt Spray:

When tested in accordance with the test method specified in Para. 6.3,

- (1) Tested splice shall be free from the defects such as exposure of metallic body in the plated area, pinhole, blister and rough corrosive affection that are detrimental to splice termination.
- (2) Tested splice shall meet the requirements of millivolt drop specified in Para. 4.2, and tensile strength specified in Para. 4.5.

4.5 Tensile Strength:

When tested in accordance with the test method specified in Para. 6.4, crimped splice shall have tensile strength specified in Table 1.

4.6 Vibration:

When tested in accordance with the test method specified in Para. 6.5,

- (1) Tested splice shall show no evidence of cracks, damage and relaxation of crimp.
- (2) Tested splice shall meet the requirements of millivolt drop specified in Para. 4.2, and tensile strength specified in Para. 4.5.

5. Test Conditions and Test Methods:

5.1 Test Conditions:

Unless otherwise specified, all the test shall be performed in any combination of the following test conditions.

Room Temperature: 20 - 30^oC
 Relative Humidity: 30 - 80%
 Atmospheric Pressure: 610 - 790mmHg

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5.2 Test

5.2.1 Test Specimens:

The test specimens to be used for the testing, shall be prepared by normal crimping having the crimp height specified in Table 2. No sample shall be reused for testing.

5.2.2 Applicable Wires:

The wires to be used for testing shall be conforming to the requirement of Vinyl-Insulated Wires for Electrical Applications, specified in JIS C 3316, as shown in Table 2.

Wire Size mm ² (MCM)	Diameter of a Conductor(mm)	Number of Conductors
500 (1,000)	3.2	61

Table 2

6. Test Methods:

6.1 Millivolt Drop(Wire Crimp Area):

Measure millivolt drop of the crimped splice by applying test current specified in Table 1, by probing between X_1 and X_2 after the temperature of the circuit becomes stabilized.

Averaged value of 4 millivolt drop measurement readings of the wire X_1 will make the value of the wire X_2 .

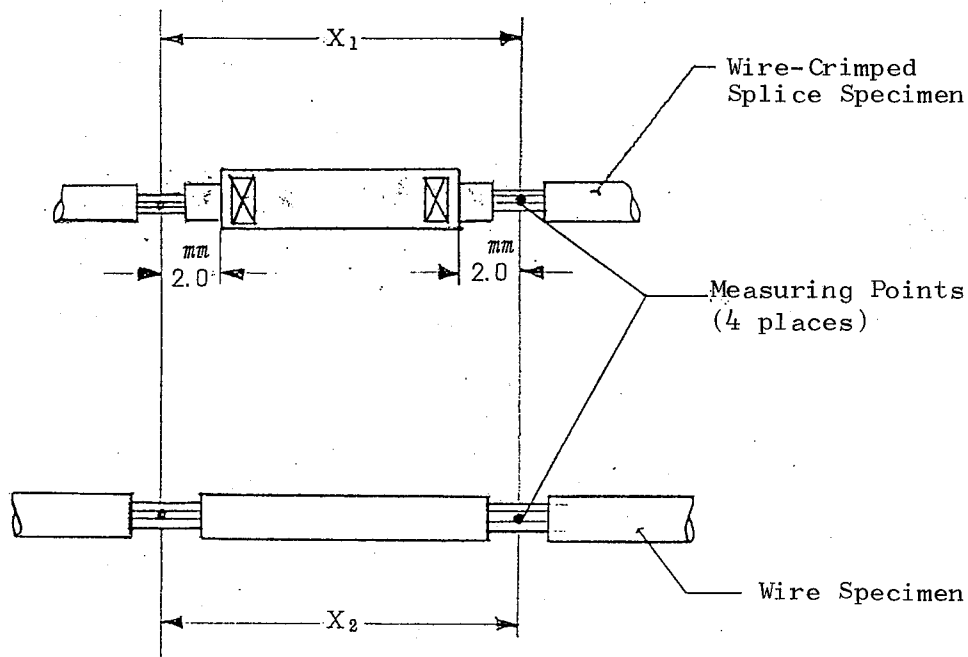


Fig. 1

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6.2 Current Cycling:

Apply test current for 50 cycles to the splice crimped wire of 1,000mm in length.

- (1) One cycle of testing consists of energizing 125% rated current specified in Table 1 for 30 minutes, and deenergize for 15 minutes.
- (2) After completion of testing cycles and the temperature returned to the room temperature, measure millivolt drop as specified in Para. 6.1.

6.3 Salt Spray:

Test in accordance with MIL-STD-202, Test Method 101, Condition B,

- (1) Crimp splice on the both ends of applicable wire of 150mm in length.
- (2) Hang the test sample in the test chamber so that 5% salt solution spray drizzles sufficiently over the specimen without any metallic or wooden material contacting the specimen. Test for 48 hours.
- (4) When the test duration is over, remove the test specimen from the test chamber, and rinse it with distilled water thoroughly. Dry in the room temperature for 1 hour minimum, and visually inspect the test specimen in accordance with Para. 4.4 (1).
- (5) Test millivolt drop in accordance with Para. 6.1, and tensile strength in accordance with Para. 6.4.

6.4 Tensile Strength (Crimped Area):

Securely fasten the wire crimped test specimen on the tensile testing machine, and operate it with the head traveling speed at a rate of 100mm a minute.

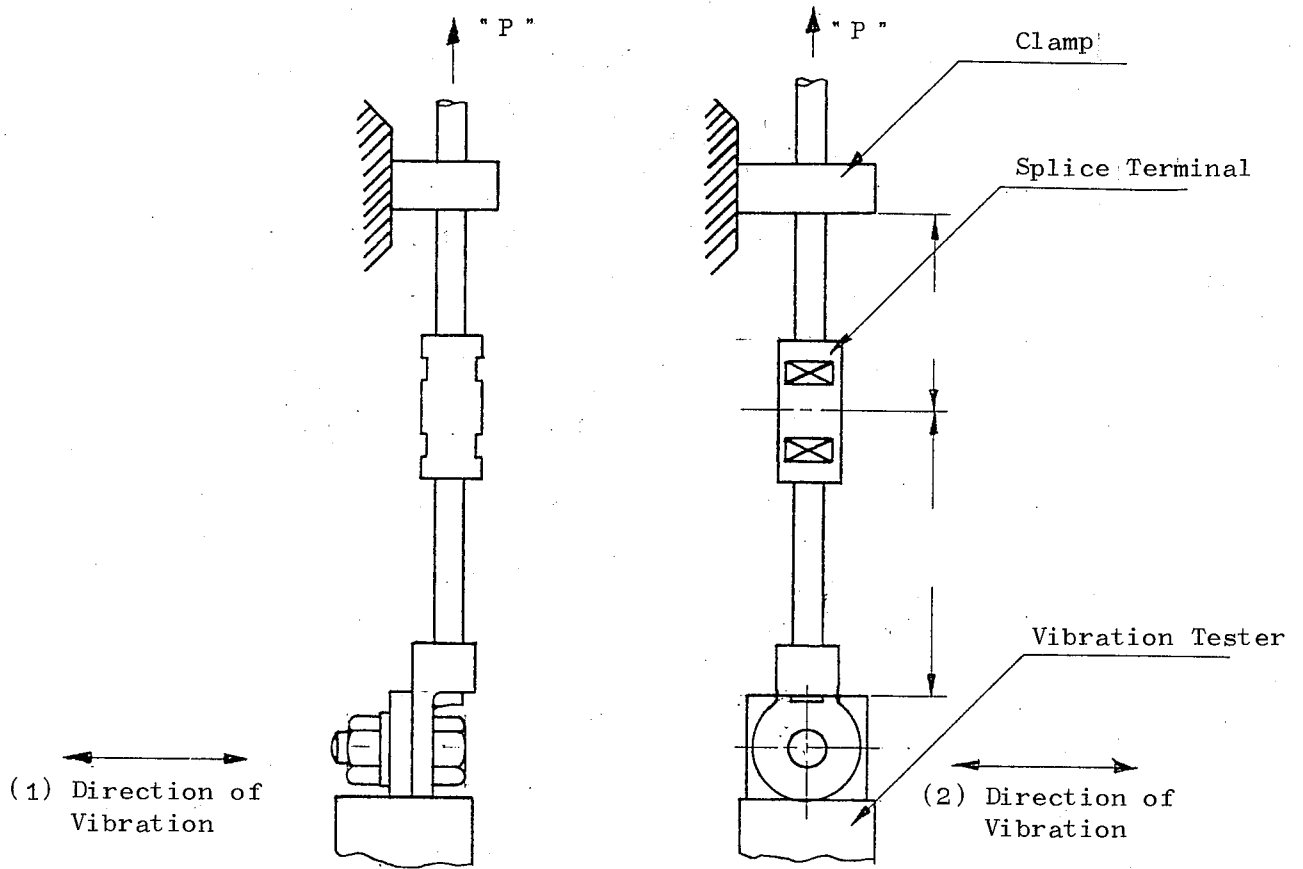
The force required to break off or pull off the wire from the wire crimp is the tensile strength of the crimped wire.

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6.5 Vibration:

Test in accordance with MIL-STD-202, Method 201.

- (1) Place the test specimen on the vibration tested and secure on it. Apply vibration of sweeping frequency to reciprocate between 10-55-10 Hz one cycle a minute, with 1.52mm amplitude both sides in the directions specified in Fig. 2, for 18 hours each, totally 36 hours.
- (2) After vibratile testing duration, measure millivolt drop of the test specimen in accordance with Para. 6.1, and tensile strength in accordance with Para. 6.4.



Note: Test specimen is secured on the vibration table by using clamp, after adjusting to find the right position not too tight nor too slack by means of spring ballancing or any other method in the direction "P".

Fig. 2

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