



**PERMANENT DOCUMENT**

**ENEC 303  
Annex AE**

**Annex AE  
to Routine Test Requirements for manufacturers  
(as per Article 9 of the Agreement)  
Flat quick connect terminations for electrical copper  
conductors covered by EN 61210**

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# Annex AE to PD ENEC 303

## Flat quick connect terminations for electrical copper conductors covered by EN 61210

### 1. ROUTINE TEST (100 %)

#### 1.1 Visual check

Visual check of content of marking as part of a sampling plan on all production unless a statistical quality control system is applied, which shows that a **100 %** check of marking is not necessary. At least the manufacturer's name or trade mark has to be visible on the product.

If necessary, marking and design have to be checked, i.e. check if the product is complete; visual errors shall not exist.

#### 1.2 Dimensional check

Dimensional check on connection devices as part of a sampling plan on all production unless a statistical quality control system is applied, which shows that a dimensional check is not necessary.

If necessary, the dimensional check has the following extent:

##### 1.2.1 Tolerances of tab thickness (table 1)

Nominal test of tab thickness	Maximum values of tab thickness	Minimum values of tab thickness
0.5 mm	0.516 mm	0.500 mm
0.8 mm	0.820 mm	0.805 mm
1.2 mm	1.201 mm	1.186 mm

#### 1.3 Force check

Force check on connection devices as part of a sampling plan on all production unless a statistical quality control system is applied, which shows that a force check is not necessary.

If necessary, the force check has the following extent:

##### 1.3.1 Insertion and withdrawal force (table 2)

Size	Maximum values of insertion force	Minimum values of sixth withdrawal force
2.8 mm	53 N	5 N
4.8 mm	67 N	9 N
6.3 mm	80 N	18 N
9.5 mm	100 N	20 N

### 1.3.2 Retention force (table 3)

Size	Retention force Push	Retention force Pull
2.8 mm	64 N	58 N
4.8 mm	80 N	98 N <sup>1)</sup>
6.3 mm	96 N	88 N
9.5 mm	120 N	110 N

<sup>1)</sup> This is higher than that of the next larger size, due to existing design

## 2 PERIODIC TESTS (PVT)

These tests have to be performed by the manufacturer on at least 0.001 % from each series/family (same construction) when in production.

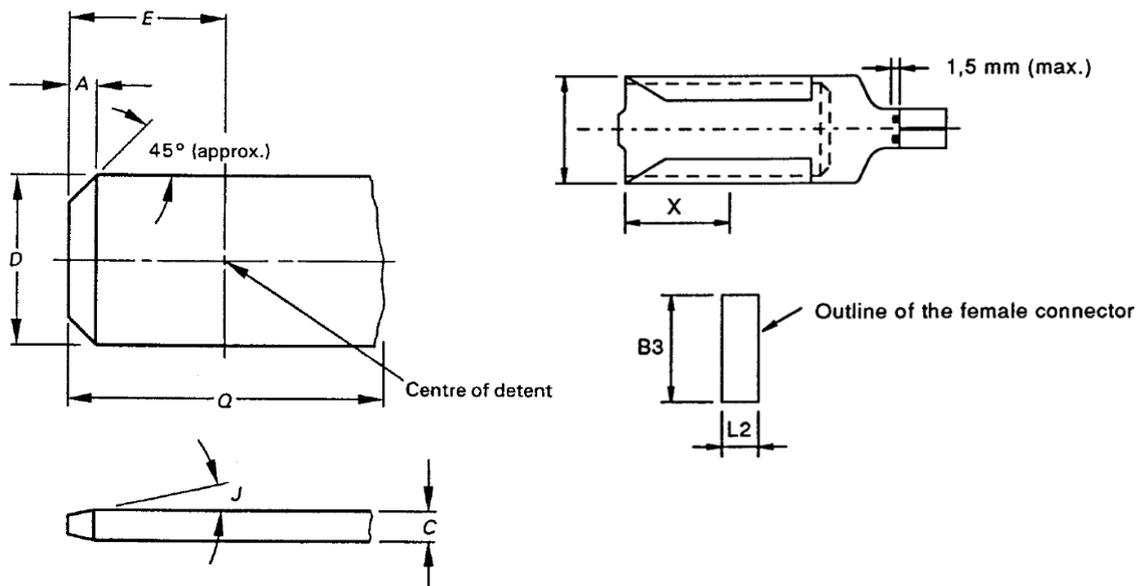
### 2.1 Visual check

Marking and design have to be checked, i.e. check if the product is complete; visual errors shall not exist.

### 2.2 Dimensional check

Check with a suitable test equipment the following dimensions and tolerances:

- A, C, D, J, E and Q on the tab
- B3 and L2 on the female connector.



**NOTE 1:** For the dimensions of the tabs refer to table 10-1 and 10-2. For the dimensions of the female connectors refer to table 11 in the standard IEC 61210.