



**PERMANENT DOCUMENT**

**ENEC 303  
Annex Y**

**Annex Y  
to Requirements for Manufacturers  
(as per article 9 of the Agreement)**

**Plugs, appliance inlets, socket-outlets, connectors and  
switched socket outlets and connectors with or without  
interlock for industrial purposes  
covered by EN 60309-1, EN 60309-2 and EN 60309-4**

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## Annex Y to PD ENEC 303

### Plugs, appliance inlets, socket-outlets, connectors and switched socket outlets and connectors with or without interlock for industrial purposes covered by EN 60309-1 , EN 60309-2 and EN 60309-4

#### 1. Routine tests

##### 1.1 Visual check

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

##### 1.2 Continuity test for plugs and connectors which are integral with flexible cables and cords

at safety-extra low voltage (AC 24 V) allowing to clearly detect the following failures:

- Interruption of earth conductor (PE)
- Short circuit between outer conductor (L) or neutral conductor (N) and earth conductor (PE)
- Mixing-up of L or N with PE

##### 1.3 Voltage test for plugs and connectors which are integral with flexible cables and cords

A practically sinusoidal voltage of 50/60 Hz and the value indicated in the following table is applied for 1 s between each pole and all other poles.

**Table**

Insulating voltage of plug and socket-outlet <sup>(1)</sup> V	Test voltage V
up to 50	500
over 50 up to 415	2000 <sup>(2)</sup>
over 415 up to 500	2500
over 500	3000

<sup>(1)</sup> The insulating voltage is at least equal to that of the highest rated operating voltage.

<sup>(2)</sup> This value is increased to 2500 V for metal enclosures lined with insulating material.

During the test neither a flashover nor breakdown shall occur.

##### 1.4 Wiring, operational performance and function (switches socket-outlets and connectors with or without interlock)

It shall be verified that the operation of the accessory is correct.

Depending on the complexity of the accessory, it may be necessary to inspect the wiring and to carry out a mechanical and/or electrical function test. The test procedure

and the number of tests depend on whether or not the accessory includes complicated interlocks, sequence control facilities, etc.

## **2. Product Verification Tests (PVT)**

These tests have to be performed by the manufacturer or on his behalf at least 2 times per year, on 3 samples from each series/family (same construction) when in production.

- 2.1 Check of dimensions (Clause 8).
  - 2.2 Check of withdrawal forces (Part 2, Clause 15).
  - 2.3 Torque test (Clause 25.1).
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