



**PERMANENT DOCUMENT**

**ENEC 303  
Annex U**

**Annex U  
to Routine Test Requirements for manufacturers  
(as per Article 9 of the Agreement)**

**Fixed capacitors, fixed inductors and passive filters  
units for electromagnetic interference (EMI)  
suppression covered by EN 60384-14, EN 60938-2,  
EN 60939-2 and EN 60939-3**

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# Annex U to PD ENEC 303

## Fixed capacitors, fixed inductors and passive filters units for electromagnetic interference (EMI) suppression covered by EN 60384-14, EN 60938-2, EN 60939-2 and EN 60939-3

### 1 ROUTINE TESTS (100%)

#### 1.1 EMI suppression capacitors (EN 60384-14)

- 1.1.1 Visual examination (4.1);
- 1.1.2 Measurement of capacitance (4.2.2);
- 1.1.3 Voltage proof (4.2.1);
- 1.1.4 Insulation resistance (4.2.5).

#### 1.2 EMI suppression inductors (EN 60938-2)

- 1.2.1 Visual examination (4.1);
- 1.2.2 Measurement of inductance (4.4);
- 1.2.3 Voltage proof (4.2);
- 1.2.4 Insulation resistance (4.3).

#### 1.3 EMI suppression filters (EN 60939-2)

- 1.3.1 Visual examination (4.3);
- 1.3.2 Insertion loss (in cases where the capacitive and inductive filter elements are not individually accessible) (4.7) or measurement of capacitance and inductance;
- 1.3.3 Voltage proof (4.3);
- 1.3.4 Insulation resistance (4.5).

#### 1.4 EMI suppression filters (EN 60939-3)

- 1.4.1 Visual examination (4.2.1);
- 1.4.2 Inductance measurement (4.3) and capacitance measurement (4.5) or insertion loss (4.6);
- 1.4.3 Voltage proof (4.8);
- 1.4.4 Insulation resistance (4.7).

### 2 PERIODIC TESTS

#### 2.1 EMI suppression capacitors (EN 60384-14)

- 2.1.1 Active flammability (4.18) (at least once a year, on all approved series);
- 2.1.2 All remaining applicable tests according to the standard (at least once every two years, on all approved series).

#### 2.2 EMI suppression inductors (EN 60938-2)

- 2.2.1 All applicable tests according to the standard (at least once every two years, on all approved series).

### **2.3 EMI suppression filters (EN 60939-2)**

2.3.1 Active flammability (in cases where the capacitive filter element that does not follow 4.18 of EN 60384-14 is used in a filter without metal case) (4.23) (at least once a year, on all approved series);

2.3.2 All remaining applicable tests according to the standard (at least once every two years, on all approved series).

### **2.4 EMI suppression filters (EN 60939-3)**

2.4.1 Active flammability (in cases where the capacitive filter element that does not follow 4.18 of EN 60384-14 is used in a filter without metal case) (4.28) (at least once a year, on all approved series);

2.4.2 All remaining applicable tests according to the standard (at least once every two years, on all approved series).

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