

# EMC of LV equipment

BELTEST tests under ISO 17025 accreditation guarantee compliance

## ■ Meeting the standards and specifications

Electrical low voltage equipment must meet the relevant European standards (CE marking) on safety and electromagnetic compatibility. In many cases it must meet additional customer's specifications. As a manufacturer or importer you need a guarantee in writing that your products comply with these standards and specifications. BELTEST accredited tests offer an independent and accurate assessment of your equipment.

## ■ Tests in the lab and in situ

Laborelec can carry out these tests under BELTEST ISO 17025 accreditation for you. Our experts conduct BELTEST accredited tests in their own laboratory. Since larger machines are often difficult to transport, they can also carry out the tests on your premises - thereby offering a unique service. They have at their disposal all the appropriate measurement methods and tools. In view of the huge diversity of the electrical equipment on the market, we always carry out feasibility studies and orientation tests before conducting tests 'in situ'.

## ■ Recommendations during design and construction

We can assist you during the design or construction of a new appliance. In this way you can be sure that the final product will meet all the EMC standards. Thanks to these recommendations, you can take all the structural measures required to avoid problems at a future date.

## Expert advice

### ■ Broad range, flexible service

In respect of the EMC standard tests in our labs, we offer the following services :

#### 1) Measurement of appliance emissions

- low frequency emissions
  - EN 61000-3-2 : harmonics
  - EN 61000-3-3 : voltage fluctuations and flicker
- high frequency emissions :
  - conducted emission(supply 200A max)
  - radiated emission with 'triple loop antenna'
  - EN 55014-1 : domestic appliances
  - EN 55015 : lighting appliances
  - EN 55011 : ISM appliances
  - EN 55022 (partial) : IT appliances



The technical Competence Center  
in energy processes and energy use.  
**From innovation to operational assistance.**



We will help you and provide you with confirmation that your appliances meet all the relevant standards.

- CEI/EN 61000-6-3 (formerly EN 50081-1) : generic standard, residential environment
- CEI/EN 61000-6-4 (formerly EN 50081-2) : generic standard, industrial environment

## 2) Verification of immunity of appliances to external electromagnetic phenomena

- EN 55014-2 : domestic appliances
- EN 61547 : lighting appliances
- CEI/EN 61000-6-1 (formerly EN 50082-1) : generic standard, residential environment
- CEI/EN 61000-6-2 (formerly EN 50082-2) : generic standard, industrial environment
- EN 61000-4-2 : electrical discharges (to 15 kV)
- EN 61000-4-3 : radio-frequency electromagnetic fields (45 V/m at GSM, DECT and Bluetooth frequencies)
- EN 61000-4-4 : fast electric transients (to 4 kV)
- EN 61000-4-5 : surge test (to 6 kV)
- EN 61000-4-6 : conducted disturbances induced by radio-frequency fields (to 20 V HF)
- EN 61000-4-11 : voltage dips, short interruptions and voltage variations (supply to 5 kVA mono)

The service is fast and flexible: normal appliances take about 14 days, and custom tests are always possible.

### ■ Knowledge of specifications

Laborelec has built up years of experience in low voltage equipment testing. We have also been BELTEST accredited for many successive years. Moreover, our experts regularly advise Electrabel on the writing of specifications for low voltage equipment. This is your guarantee that we keep a close eye on all the latest developments, and know the most important specifications through and through.



### Five reasons for you to choose Laborelec:

- you have one-stop shopping for your energy needs;
- you get access to more than 40 years of experience;
- you get rapid service with reliable solutions;
- you increase the profitability of your installations;
- you benefit from independent and confidential advice.

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### Electromagnetic Compatibility

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