#### I.P.E TECHNICAL FILE

# **I.P.E** Electromagnetic polarity reverser

Conservation Technology's non-invasive system to eliminate humidity in walls.



**I.P.E is internationally certified by the ICNIRP Institute:** emitted **electromagnetic waves** are not harmful to the health of people, animals or plants. The electromagnetic waves are a very low intensity and frequency.

### **RUNNING**

The electro-physical principle used to remove humidity from a building is based on the positive and negative poles of water molecules. For water to rise up the walls, its molecules' negative poles are facing up. **This I.P.E sends electromagnetic waves** that prevent water molecules from combining and rising due to capillary action and repel them back towards the soil.

## **CONSUMPTION**

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The I.P.E must be always plugged but consumes very little energy (0.75 W). A 12 V external power supply is included. It consumes about €12 of electricity annually. It's easy to install, no other equipment needed.

# **GUARANTEE**

The I.P.E works at a very low frequency that easily penetrates solid structures.

It includes a 30-year manufacturer's guarantee.



## **CONSIDERATION AND PRECAUTIONS**

The system must operate continuously in order to obtain the optimum performance of the equipment. This reduces not only moisture from the walls, but also prevents moisture from rising in the future. This equipment is designed to work indoors. It must avoid heating sources like direct sunlight. The maximum operating altitude of the equipment is **2000m**. It is necessary to make sure the plug is easily accessible. Cleaning the equipment must only be done with a dry cloth.

# TECHNICAL CHARACTERISTICS

BFL Ireland has developed 6 types of devices with various treatment ranges. In fact, the I.P.E. is effective in combatting rising humidity in buildings, ranging from 50 m2 to several thousand m2.

Model	Radius	Dimension	Kg
I.P.E 12	6 m	25 x 15 x 4,5 cm	1,7 kg
I.P.E 16	8 m	25 x 15 x 4,5 cm	1,7 kg
I.P.E 22	11 m	25 x 15 x 4,5 cm	1,7 kg
I.P.E 32	16 m	25 x 15 x 4,5 cm	1,7 kg
I.P.E 46	23 m	30 x 20 x 6,7 cm	2,2 kg
I.P.E 62	31 m	30 x 20 x 6,7 cm	2,2 kg

# IMPORTANT PRECAUTIONS

It is important to place the equipment within the range of action so that it covers the farthest walls or the wettest areas (6 different devices).

**It is important to install on load bearing wall.** It is recommended to place it in a more or less central place within the building that has an electrical outlet. Less than 1.70 m away. Electrical conductors, metal tubes or beams must be more than 30 cm away.

It should be noted that the back of the equipment must be in direct contact with a load bearing wall. (Intermediate materials between the system and the wall such as wood, plasterboard, ceramic tiles, porexpan, plastic layers or a thick layer of gypsum over 3 mm should be avoided). In these cases, it is recommended to look for an area on the wall without these intermediate layers. In addition, it is possible to place the system on the floor beneath furniture so that it does not disturb.





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#### **INSTALLATION**

The equipment is supplied with separate power plugs, anchors and their corresponding right angle screws.

- You need a drill with a 5 or 6 mm drill bit, two dowels, and the appropriate screws to perform the installation.
- The holes are drilled according to the appropriate drill bit size between 35cm and 65cm.
- The anchors are inserted and the screws are fixed at right angles

The equipment is wall mounted, leaving the power supply and the LEDs on the right side. The adapter power is connected to a nearby outlet and the jack (output connector) is plugged on the right side of the I.P.E.

The **red LED** indicates that the power is on.

The **green LED** indicator lights up slightly, indicating that the system is acting against moisture.

**ADVANTAGES** 

### THINGS TO WATCH FOR

It is advisable to check that **the red and green LEDs are still on.** If that's not the case, please contact the supplier.

The drying process normally becomes noticeable after 4 months, but a painter must make sure that the walls are completely dry before restoration. Usually, white stains appear on the wall during the drying process. These are salts, which have been dissolved in water and are present in the walls. These salts, considerably reduce the adhesion of paint and mortar, and it is therefore essential to remove these salts by friction, scraping or by other means before restoration. This must be done with lime type mortar, and breathable paints because it is important that the walls can breathe.



An efficient and fast result

Image: An efficient product range with an efficient process against capillary rise

Image: An efficient and fast result

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