

## Environmental declaration Type II

### GENERAL PRODUCT INFORMATION

|                                   |                               |
|-----------------------------------|-------------------------------|
| <b>Product name</b><br>Pulser-X/D | <b>Packaging</b><br>Cardboard |
|-----------------------------------|-------------------------------|

### COMPANY INFORMATION

|   |
|---|
| <b>Company, address and telephone</b><br>AB REGIN<br>Box 116<br>SE-428 22 Källered<br>Sweden<br><br>Tel: +46 – (0)31 – 720 02 00<br>Fax: +46 – (0)31 – 720 02 50<br>E-mail: info@regin.se   |
| <b>Company description</b><br>AB Regin develops and markets controllers, transmitters and components for ventilation and indoor climate control.<br><br>AB Regin has a certified quality assurance system according to ISO 9001.  |
| <b>Ongoing environmental work</b><br>Regin designs products on commission as well as for resale. Regin has no production of its own and has therefore no product-related environmental policy. Regin can control environmental aspects related to product development and when choosing suppliers and components.<br><br>AB Regin intend to begin working with environmental certification according to ISO 14 001. AB Regin intend to gradually start developing MVD Type II (Regin's own environmental declaration) for our products. |

### PRODUCT INFORMATION

|   |                         |                     |
|---|-------------------------|---------------------|
| <b>General</b><br>The recommended field of application is stated in the technical documentation.<br>There is an unambiguous and lasting label (manufacturer, product name, serial number etc) on the product.<br>The labelling is linked to the technical documentation which makes the product clearly identifiable. |                         |                     |
| <b>Product design</b><br>The product consists of an assembled circuit board with a cooling flange, two protective gratings and two bottomplates for DIN-rail mounting.  |                         |                     |
| <b>Component modules</b>  | <b>Weight<br/>grams</b> | <b>Weight<br/>%</b> |
| <b>Assembled circuit board</b>  | 135.0                   | 37                  |
| <b>Protective grating</b>   | 10.5                    | 3                   |
| <b>Plastic components</b>   | 29.5                    | 8                   |
| <b>Cooling flange</b>   | 187.5                   | 51                  |
| <b>Other metal parts (screws, washer etc)</b>   | 4                       | 1                   |

**PRODUCT INFORMATION, RESOURCES AND HAZARDOUS SUBSTANCES**

| <b>Component modules</b>            | <b>Resources</b><br>(metals, organic, non-organic substances) | <b>Hazardous substances</b><br>(Kd, Hg, Pb, PCB, PVC, PBB, PBBE etc) |
|-------------------------------------|---|--|
| <b>Assembled circuit boards</b>     | <b>Epoxy, glass fibre, Si, Cu, Fe, Sn, Au, Ag</b>             | <b>flame retardants</b>  |
| <b>Plastic components</b>           | <b>PC/ABS copolymer</b>                                       |  |
| <b>Cooling flange</b>               | <b>AlAl</b>   |  |
| <b>Screws, spring bracket</b>       | <b>Fe, Cu, Zn</b>   |  |
| <b>Notes, the product's content</b> |   |  |
| ---                                 |   |  |

**PRODUCTION**

The components are mounted mechanically and manually and are thereafter soldered together with classified soldering. The environmental consequences are negligible and consist solely of air outlet from soldering  
The operation does not require licencing

**DISTRIBUTION**

|   |   |
|---|---|
| Production origin   | Hultsfred, Sweden   |
| Mode of transportation  | Lorry, train  |
| Mode of distribution  | The product is normally distributed via a warehouse/wholesaler. |
| Material used for packaging   | Wood, paper, plastic  |
| Packaging material can not be returned.<br>AB Regin is connected to REPA. |   |

**BUILDING PHASE**

Documented instructions for mounting and commissioning are included with the product. The instructions contain recommendations concerning

- Safeguard measurement for handling procedures and mounting.
- Handling of the product at the workplace and during mounting.

**USAGE PHASE****Normal operation**

The product requires energy (electricity) during normal operation. Power consumption max approx. 20 VA (depending on the load)  
The product does not have any environmental impact on the surrounding environment during normal operation.  
Normally, the product does not require any maintenance.  
It is possible to estimate the product's life span in advance.  
There is no documentation concerning the expected life span when the product is under different conditions.  
Documented instructions for appropriate operation and maintenance are supplied with the product.

**Emergency**

In case of fire the plastic may emit gases harmful to human health. The amounts of these substances are small compared with the size of the product.  
Circuit boards may emit toxic flue gases.

## **DEMOLITION**

The product is prepared for environmental-friendly dismantling.

Dismantling of the product:

1. In the middle of each bottom plate there is a round plastic rivet, remove these. The bottom plates can now be removed.
2. Unscrew the four screws holding the protective gratings. Remove the gratings.
3. Remove the circuit board, the jumper holding the triac against the cooling flange will loosen.
4. Remove the earth screw, tin-plate and washer. Remove the labeling.

## **WASTE MANAGEMENT**

The long life span of the product means that the recycling procedures may differ from today when the product is recycled.

The product is required, by law, to be handled according to standard waste management procedures. The materials can easily be separated to a high separation degree.

The plastic components consist of PC/ABS and can, theoretically, be recycled. Recovering of energy through combustion is considered the best option in the present situation, since the plastic does not contain any substances dangerous to the environment.

The cooling flange can be recycled.

The screws can be recycled.

Energy can be recovered from the protective gratings.

Circuit boards with components are required by law to be dismantled and constituent components to be identified. Swedish companies in electronic recycling separate in three main fractions. Recycling of materials, recovering of energy and dangerous waste.

Identified metallic constituents are returned to metal recycling.

Combustible materials are returned for safe disposal in a licenced incinerator.

Dangerous waste is returned for destruction to a licenced entrepreneur.