

## Environmental declaration Type II

### GENERAL PRODUCT INFORMATION

<i>Name of product series</i>	<i>Packaging</i>
HC193DWM-I	Cardboard

### COMPANY INFORMATION

#### *Company, address and telephone*

AB REGIN

Box 116

SE-428 22 Kålleröd

Sweden

Tel: +46 – (0)31 – 720 02 00

Fax: +46 – (0)31 – 94 01 46

E-mail:

#### *Company description*

Regin is the collected trademark for products and systems in building automation. The company's knowledge is based on many years of wide experience in control, automation and flow control.

AB Regin has a certified quality assurance system according to ISO 9001.

#### *Ongoing environmental work*

Regin designs products on commission from clients as well as for resale. Regin has no production of its own and has thereby no product related consequences for the environment. Regin can control environmental aspects related to product development and when choosing suppliers and components.

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

### General

The recommended field of application is stated in the technical documentation.

There is an unambiguous and lasting label (manufacturer, product name, serial number etc) on the product.

The labelling is linked to the technical documentation which makes the product clearly identifiable.

### Product design

HC193DWM-I is an electronic controller solution with 3 main parts. The enclosure has a front, middle and a back cover where UI is in the front cover. Enclosed in the middle part are the two PCB with components and display module which attached to the back side of the front cover. In the bottom cover are all the cable connection terminals located.

<b>Component modules</b>	<b>Weight grams</b>	<b>Weight %</b>
Enclosure	199	43
Electronics	178	38
Display module	30	6
Terminals	34	7
Earth connectors	21	4
Buttons	7	1,5
Earth cable	3	<1

### PRODUCT INFORMATION, RESOURCES AND HAZARDOUS SUBSTANCES

<b>Component modules</b>	<b>Resources</b> (metals, organic, non-organic substances)	<b>Hazardous substances</b> (Kd, Hg, Pb, PCB, PVC, PBB, PBBE etc)
PCB	Epoxi, Cu, Ag; TBBP-A	TBBP-A
Casing	PC	
Display module	SiO <sub>2</sub> , InSnO, PA Cu, PET	
CR2032	Lithium	
Terminals	Fe, Brass, Sn, PA66	
Buttons	Rubber	
Earth connectors	Fe, Sn	

### Notes, the product's content

Battery included in HC193DWM-I.

## PRODUCTION

Regin has no production of its own and has therefore no product related environmental policy. The components are mounted 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.  
**Wrapping Material** Wood, paper, plastic  
Packaging material can not be returned.  
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 approx. 10 VA.

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. Split apart the enclosure to remove PCB remove the battery and sort in as electronic waste.
2. Separate battery, plastic components, electronic components and recycle at appropriate facility.

## **WASTE MANAGEMENT**

The long life span of the product means that the recycling situation 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.

Plastic parts 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.

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.