

Prisma Plus enclosures up to 630 A

Product Environmental Profile

This declaration provides information on the environmental behaviour of the product during the different phases of its life cycle.

1 - General information on the product and manufacturer



1 – 1 Product information:

Trademark of the product range concerned: The products concerned by the Product Environmental Profile are part of the Prisma Plus range.

The range consists of metal enclosures and components
for installing electrical devices (mounting plates and front plates)
for distributing current (distribution blocks, busbars...)
for connecting switchboards on site (connections, terminal blocks, cable tie supports...)

Product function: Installation, power supply and connection system for low voltage switchgear

Models and functional units representative of the range: 250A enclosure with

Components for functional units:

- incoming: 250A fixed Compact NS circuit breaker

outgoing 3 rows of Multi 9 devices
1 row of contactors

Current distribution components (busbars...)

Enclosure components (enclosure, door...)

List of catalogue numbers: 04066, 03030, 03230, 04060, 03801, 03001, 03204, 04004, 04014, 03203, 03002, 03804, 03220, 04239, 04257, 04265, 04267, 04122, 04151, 04200, 08108, 08138.

Technical characteristics: reference product standard IEC 60 439-1

Performance:

Rated insulation voltage of the main busbars: U_i up to 1000 V

Rated operational current: I_n up to 630 A

Rated short-time current: I_{cw} up to 25 kA rms /1sec.

1 - 2 Manufacturer identification

Manufacturer: Schneider Electric Industries SAS:
89, Boulevard Franklin Roosevelt
F-92500 Rueil-Malmaison

Development entity: *Low voltage switchboard system development centre*

Production sites: Schneider Electric is setting up **Environmental Management Systems** on its production sites.

They are subject to third-party ISO 14001-certification.

The switchboard system is manufactured at: Merlin Gerin Alpes
Zone Industrielle Alpe Espace
73 800 St H el ene du Lac
France

2 - Materials and substances contained in the product

2 - 1 Material balance:

The total weight of the product is 37.5 kg, distributed as follows:

Material	Weight in kg	% weight
Steel	21.2	57%
Copper	5.5	14.5%
Aluminium	0.6	1 %
Nonferrous alloys	0.3	0.8%
Thermoplastic	5.4	14.5%
Thermoset	0.1	0.2%
Glass	4.4	12%
Total	37.5 kg	100%

2 -2 Information on dangerous substances

Dangerous substances banned by regulations

All relevant measures have been taken with our departments, suppliers and subcontractors so that the materials included in Prisma Plus enclosures up to 630 A do not contain any substances banned by European regulations. (see Annex 1)

3 - Energy consumption

The energy consumption of the representative 250 A enclosure is related to the power dissipation (or heat loss) and depends on the product operating conditions.

The following assumptions have been used in calculating the energy consumption:

Annual installation percent load (Load%)	30%
Estimated service life (L)	20 years, i.e. 175,200 hours
Enclosure energy consumption (E)	8940 kWh.

Calculation method

If P is the power dissipated in the cubicle, the energy consumption is calculated by the formula:

$$E = P \times \text{Load\%} \times L$$

4 - Information on batteries

The enclosures do not contain any batteries.

5 - Packaging

Description of packaging:

The following materials are used:

Materials	Weight in kg	% weight
Cardboard	4.1	75.7%
PE	0.7	13.9%
XPS	0.5	8.6%
Paper	0.06	1%
Other	0.04	0.8%
Total	5.4	100%

All the relevant measures have been taken with our departments, suppliers and subcontractors so that packaging does not contain any materials banned by European regulations.

(The sum of the concentrations of lead, cadmium, mercury and hexavalent chromium contained in the original packaging used to give information on and deliver the products concerned by this Declaration does not exceed 100 ppm, the limit set by Directive 94/62/EEC, published in Official Journal L365 issued 31/12/1994 relating to packaging and packaging waste.

Expanded polystyrene is 100% recyclable. The steam-based expansion process limits atmospheric emissions. Expanded polystyrene contains no gases that are harmful to the ozone layer.)

6 - Information on product end-of-life management

At the end of their service life, the enclosures can be either dismantled or shred for better recovery of the different materials they contain. Recovery consists of recycling or incineration.

The proportion of recyclable material in the representative 250 A enclosure is 89%.

This percentage includes the ferrous and nonferrous materials in the product.

The part that can be incinerated represents 5% and includes the thermoplastic and thermoset materials, which do not contain any brominated flame retardants.

The front door of the enclosure includes a sheet of glass weighing approximately 4 kg that is to be recycled separately. Apart from that point, there are no particular precautions that need to be taken prior to shredding or dismantling.

7 - Environmental impact analysis

An analysis has been made of the environmental impacts on the product life cycle.

It takes into account all stages of the product life cycle: production, distribution and use. We used the EIME (**E**nvironmental **I**mpact and **M**anagement **E**xplorer) software tool to obtain the Life Cycle Analysis (LCA) data.

With EIME, a complete, quantitative assessment of environmental impacts was made according to the following indicators:

RMD (Raw Material Depletion)

ED (Energy Depletion)

WD (Water Depletion)

GW (Global Warming Potential)

ODP (Ozone Depletion Potential)

AT (Air Toxicity)

POC (Photochemical Ozone Creation)

AA (Air Acidification)

WT (Water Toxicity)

WE (Water Eutrophication)

HWP (Hazardous Waste Production)

The analysis conditions and results are available on request.

ANNEX 1: Declaration relating to the use of dangerous substances

All the relevant measures have been taken with our departments, suppliers and subcontractors so that the materials included in our products do not contain any of the banned substances defined below.

Asbestos:

The materials used in the products concerned by this declaration do not contain any asbestos, the marketing and use of which are governed by directive 76/769/EEC published in Official Journal L262 of 27.09.1976 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations, amended by directives 83/478/EEC, Official Journal L263 of 24.09.1983, 85/610/EEC, Official Journal L375 of 31.12.1985 and 91/659/EEC, Official Journal L363 of 31.12.1991.

PCBs (Polychlorinated biphenyls) and PCTs (Polychlorinated terphenyls):

The transformers and capacitors used in some of the products concerned by this declaration do not contain more than 0.005% by weight of PCBs or PCTs, the marketing and use of which are governed by directive 76/769/EEC published in Official Journal L262 of 27.09.1976 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations, amended by directives 82/828/EEC, Official Journal L350 of 10.12.82, 85/467/EEC, Official Journal L269 of 11.10.85 and 89/677/EEC, Official Journal L398 of 30.12.89.

Cadmium:

The plastic materials incorporated in the products concerned by this declaration do not contain more than 0.01% by weight of cadmium as a pigment or stabiliser, the marketing and use of which are governed by directive 76/769/EEC published in Official Journal L262 of 27.09.1976 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations, amended by directive 91/338/EEC, Official Journal L186 of 12.07.91.

Cadmium and lead:

The paints that may be used in the treatment of the materials incorporated in the products concerned by this declaration do not contain more than 0.1% weight of cadmium and do not contain any lead, the marketing and use of which are governed by directive 76/769/EEC published in Official Journal L262 of 27.09.1976 concerning the approximation of the laws, regulations and administrative provisions of the member states relating to restrictions on the marketing and use of certain dangerous substances and preparations, amended by directive 89/677/EEC, Official Journal L398 of 30.12.89.

Mercury:

The batteries and accumulators that may be incorporated in the products concerned by this declaration do not contain more than 5 ppm weight of mercury, the marketing and use of which are governed by directive 91/157/EEC published in Official Journal L78 of 26.03.91 relating to batteries and accumulators containing certain dangerous substances, amended by directive 98/101/EEC, Official Journal L1 of 05.01.1999.

Concentrations of lead, cadmium, mercury and hexavalent chromium in packaging:

The sum of the concentrations of lead, cadmium, mercury and hexavalent chromium in the original packaging used to give information on and deliver the products concerned by this declaration does not exceed 100 ppm, the limit set by directive 94/62/EEC, Official Journal L365 of 31/12/1994 relating to packaging and packaging waste.

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As standards, specifications and designs change
from time to time, please ask for confirmation of the
information given in this publication.

Design: Schneider Electric

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