Product Environmental Profile

Eaton 5P Rack Gen2 Single Phase UPS

Representative product	Eaton 5P 1550i Rack 1U G2 (5P1550IRG2) Product Category: Uninterruptible Power Supply (UPS) with energy storage
Description of the product	Eaton 5P Rack Gen2 is a compact footprint for users who needs continuous power supply like in clinics, hospitals, financial institutions, businesses or IT installations. Eaton 5P Rack Gen2 is available in different power ratings : 1550VA, 1150VA, 850VA and 650VA with input voltage from 200V to 240V and inbuilt lead acid battery.
Product specifications	Power VA & W: 1550VA (1350W) UPS Configuration: Single phase, operating in normal mode. UPS performance classification: UPS - VI (Line Interactive) Technology of the energy storage system: Valve regulated lead acid batteries (VRLA) Product dimensions (H X W X D): 43.2 x 438 x 554 mm Mass of the equipment : 21.3 kg Power factor: 0.871 Reference service life (Years): 8
Homogeneous Environmental Families Covered	The PEP concerns product offerings from Eaton 5P Rack G2 series as mentioned below:

Model	Description	UPS Rating (W)	Backup time at full load (mins)	Typical load (W) for backup Time	Backup time at typical load (mins)
5P1550IRG2 (Reference)	**Eaton 5P 1550i Rack 1U G2**	**1350**	**2**	**945**	**6.5**
5P650IRG2	Eaton 5P 650i Rack 1U G2	520	1.1	312	5.1
5P850IRG2	Eaton 5P 850i Rack 1U G2	680	3.9	544	6.3
5P1150IRG2	Eaton 5P 1150i Rack 1U G2	920	3.1	644	5.7

Functional unit	To ensure the supply of power without interruption to equipment with load of 100 watts for a RSL of 1 years, including a backup time capacity of 5 minutes during power shortages
Declared unit	To ensure the supply of power without interruption to equipment with load of 1350 watts for a RSL of 8 years, including a backup time capacity of 2 minutes (at full load condition) during power shortages
Company information	Critical System- Power Quality Division Eaton Industries France SAS; Email: productstewardship-es@eaton.com

Constituent Materials of Reference Product:	2.64E+01 kg (with packaging)		
Materials	**Category PEP Material**	**Mass (kg)**	**Percentage (%)**
Others	Battery	7.98E+00	30.2%
Metals	Steel	7.22E+00	27.4%
Others	Transformer	3.13E+00	11.9%
Others	Cardboard	2.78E+00	10.5%
Others	Wood	1.54E+00	5.8%
Others	Cable	7.15E-01	2.7%
Plastics	Polyurethane foam	4.44E-01	1.7%
Metals	Aluminium	4.43E-01	1.7%
Others	Connector	3.91E-01	1.5%
Plastics	ABS	2.31E-01	0.9%
Plastics	PVC	2.17E-01	0.8%
Others	PWB	2.05E-01	0.8%
Others	Ferrite	1.33E-01	0.5%
Others	Polyurethane glue	1.29E-01	0.5%
Plastics	Polyethylene	1.12E-01	0.4%
Others	Miscellaneous	7.21E-01	2.7%
Total		**2.64E+01**	**100%**

Substance Assessment

The representative product is compliant with the EU-RoHS Directive (2011/65/EU) by application of exemptions and the product contains lead (Pb) in batteries, copper alloy and electronics, which is listed as Substance-of-Very-High-Concern (SVHC) on the Candidate List of the EU-REACH Regulation (1907/2006/EC).

Additional Environmental Information	
Manufacturing	The reference product is assembled at an Eaton plant (LianZheng Electronic (ShenZhen) Co., Ltd.) holding management system certifications according to ISO 14001 standards.
Distribution	Eaton is committed to minimizing weight and volume of product and its associated packaging material with focus to optimize transport efficiency.
Installation	During installation of the product only standard tools are needed, which do not require any additional energy source and no waste other than the obsolete product packaging is generated during this step.
Use	Product consumes energy during useful life which is considered to be 8 years (as per actual designed life). During the reference service life of product, product doesn't require any maintenance except single replacement of the battery.
End of life	The recyclability rate of the overall product is 65.4% if properly dismantled prior to further processing at a recycling facility. The rate is calculated based on "ECO'DEEE recyclability and recoverability calculation method" (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME).

Environmental Impacts

The calculation of the environmental impacts is the result of the Product's Life Cycle Analysis in accordance with ISO 14040/44, covering the entire lifecycle, i.e., "Cradle-to-Grave" including the following life cycle phases: production, distribution, installation, use and end of life.
System modelling was carried out using the commercial LCA software EIME v6.1.3 with database version CODDE-2023-02.
Indicators Set used: PEF EF 3.0 (Compliance: PEP ed.4, EN15804+A2) v2.0

<table>
<tr><td>Manufacturing Phase</td><td>Product is assembled and prepared for shipment at the Eaton facility, Lianzheng Electronic (Shenzhen) Co., Ltd.
Energy model used: Europe, China, Global</td></tr>
<tr><td>Distribution Phase</td><td>As per the actual distance calculated from Eaton warehouse location in Germany , intracontinental transport of 1400 km by lorry (longest customer location distance) is considered as transport scenario from by lorry as transport scenario from Eaton location to end user for this study</td></tr>
<tr><td>Installation Phase</td><td>Product is installed in any European country. Hence, packaging waste treatment is considered in this phase considering country specific statistics as per PSR.
Energy model used: Europe</td></tr>
<tr><td>Use Phase</td><td>Reference lifetime: 8 years
Energy model used: Europe.
Usage profile: It has an average energy efficiency of 98.01 %. The methodology for the calculation of the electricity consumption is based on Uninterruptible Power Supplies (UPS) PSR.
<table>
<tr><td>Operating loads</td><td>25%</td><td>50%</td><td>75%</td><td>100%</td></tr>
<tr><td>Proportion of Time spent at</td><td>0.00</td><td>0.30</td><td>0.40</td><td>0.30</td></tr>
</table>
Total energy losses are calculated to be equal to 1.37 MWh over the 8 years. Product require one battery replacement during its use life.</td></tr>
<tr><td>End of life Phase</td><td>Product disposed according to European WEEE guidelines.
Energy model used: Europe</td></tr>
<tr><td>Module-D</td><td>Module D is calculated according to PCR-ed4-EN-2021 09 06 based on the materials recycled and the modelled end-of-life scenario.
It expresses the net benefits and loads beyond the boundaries of the system and are not to be included in the life cycle totals.</td></tr>
</table>

All environmental impacts are calculated for the declared unit, then data should be divided by the Factor calculated with below formulas to get functional unit result.

Factor for use stage energy consumption B6:

$$\frac{Declared\ Unit\ Power\ (1350\ W) * Declared\ Unit\ Lifetime\ (8\ year)}{100\ W * 1\ year} = \mathbf{108}$$

Factor for all other stages (excepted B6 of use stage):

$$\frac{Declared\ Unit\ Power\ (1350\ W) * Declared\ Unit\ Lifetime\ (8\ year) * Declared\ Unit\ Backuptime\ (2\ min)}{100\ W * 1\ year * 5\ min} = \mathbf{43.2}$$

Environmental Impact for Functional Unit

Environmental Impact Indicators: Mandatory

Environmental impact indicators	Units	Sum	Manufacturing (A1-A3)	Distribution (A4)	Installation (A5)	Use (B1-B6)*	End of Life (C1-C4)	Maintenance (B2)	Operational energy use (B6)	Benefits and loads beyond the system boundaries (Module D)
Resource use, minerals and metals	kg SB eq.	2.04E-03	1.23E-03	2.30E-09	9.78E-10	8.13E-04	7.97E-07	8.13E-04	3.77E-07	-1.17E-03
Resource use, fossils	MJ	2.53E+02	5.75E+01	8.14E-01	8.50E-01	1.55E+02	3.85E+01	2.27E+01	1.33E+02	-3.69E+01
Acidification	mole of H+ eq.	7.84E-02	3.34E-02	3.70E-04	2.85E-04	4.09E-02	3.55E-03	1.12E-02	2.97E-02	-1.27E-02
Eutrophication, freshwater	kg P eq.	5.72E-05	9.90E-06	2.19E-08	1.05E-06	1.93E-05	2.70E-05	5.05E-06	1.42E-05	-4.41E-06
Eutrophication marine	kg N eq.	1.13E-02	4.69E-03	1.73E-04	1.22E-04	5.58E-03	6.89E-04	2.21E-03	3.37E-03	-1.21E-03
Eutrophication, terrestrial	mol N eq.	1.35E-01	5.07E-02	1.90E-03	1.01E-03	7.61E-02	5.75E-03	2.54E-02	5.07E-02	-1.27E-02
Climate change	kg CO_2 eq.	1.12E+01	3.68E+00	5.84E-02	1.56E-01	6.60E+00	7.33E-01	1.39E+00	5.20E+00	-1.45E+00
Climate change-Biogenic	kg CO_2 eq.	6.21E-02	1.17E-02	0.00E+00	4.20E-02	6.89E-03	1.49E-03	-5.50E-05	6.94E-03	-7.94E-03
Climate change-Fossil	kg CO_2 eq.	1.12E+01	3.66E+00	5.84E-02	1.14E-01	6.59E+00	7.31E-01	1.39E+00	5.20E+00	-1.44E+00
Climate change-Land use and land use change	kg CO_2 eq.	1.34E-06	1.30E-06	0.00E+00	2.52E-08	0.00E+00	1.37E-08	0.00E+00	0.00E+00	-1.16E-06
Ozone depletion	kg CFC-11 eq.	1.36E-06	5.84E-07	8.95E-11	1.10E-09	7.24E-07	5.09E-08	7.02E-07	2.22E-08	-1.58E-07
Photochemical ozone formation - human health	kg NMVOC eq.	3.90E-02	1.64E-02	4.79E-04	2.35E-04	1.98E-02	2.09E-03	9.02E-03	1.08E-02	-4.79E-03
Water use	m3 eq.	5.06E+00	1.41E+00	2.22E-04	1.76E-02	4.56E-01	3.18E+00	2.72E-01	1.84E-01	-5.74E-01

*Note: B2 (Maintenance) and B6 (energy requirements during the use stage) are considered. Other sub modules in the use stage (B1, B3-B5, B7) are equal to zero. So, it is not listed in the result tables.

Inventory Flow Indicators: Mandatory

Inventory flow indicators	Units	Sum	Manufacturing (A1-A3)	Distribution (A4)	Installation (A5)	Use (B1-B6)*	End of Life (C1-C4)	Maintenance (B2)	Operational energy use (B6)	Benefits and loads beyond the system boundaries (Module D)
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2.63E+01	5.44E-01	1.09E-03	2.60E-01	2.55E+01	4.53E-02	2.20E-02	2.55E+01	3.44E-01
Use of renewable primary energy resources used as raw material	MJ	1.92E+00	1.92E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.20E+00
Total use of renewable primary energy resources	MJ	2.82E+01	2.46E+00	1.09E-03	2.60E-01	2.55E+01	4.53E-02	2.20E-02	2.55E+01	-8.57E-01
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.50E+02	5.53E+01	8.14E-01	8.50E-01	1.55E+02	3.85E+01	2.24E+01	1.33E+02	-3.50E+01
Use of non renewable primary energy resources used as raw material	MJ	2.51E+00	2.20E+00	0.00E+00	0.00E+00	3.14E-01	0.00E+00	3.14E-01	0.00E+00	-1.85E+00
Total use of non-renewable primary energy resources	MJ	2.53E+02	5.75E+01	8.14E-01	8.50E-01	1.55E+02	3.85E+01	2.27E+01	1.33E+02	-3.69E+01
Use of secondary material	kg	3.31E-06	3.31E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of freshwater	m3	1.26E-01	3.28E-02	5.16E-06	4.09E-04	1.06E-02	8.25E-02	6.32E-03	4.29E-03	-1.34E-02

Components for reuse	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Materials for recycling	kg	1.87E-01	1.92E-06	0.00E+00	1.31E-02	0.00E+00	1.74E-01	0.00E+00	0.00E+00		0.00E+00
Materials for energy recovery	kg	1.20E-02	1.61E-04	0.00E+00	1.08E-02	0.00E+00	1.00E-03	0.00E+00	0.00E+00		0.00E+00
Exported Energy	MJ	2.01E-02	1.11E-04	0.00E+00	0.00E+00	9.99E-03	1.00E-02	9.99E-03	0.00E+00		0.00E+00
Hazardous waste disposed	kg	3.01E+00	1.57E+00	0.00E+00	1.76E-03	5.11E-01	9.32E-01	4.14E-01	9.72E-02		-4.65E-01
Non hazardous waste disposed	kg	2.67E+00	1.65E+00	2.05E-03	7.00E-02	8.34E-01	1.15E-01	8.51E-02	7.49E-01		-2.80E+00
Radioactive waste disposed	kg	6.37E-04	2.83E-04	1.46E-06	5.29E-06	3.09E-04	3.87E-05	1.52E-04	1.57E-04		-2.85E-04
Biogenic carbon content of the product	kg C	2.59E-04	2.59E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Biogenic carbon content of the associated packaging	kg C	3.30E-02	3.30E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00

*__Note__: B2 (Maintenance) and B6 (energy requirements during the use stage) are considered. Other sub modules in the use stage (B1, B3-B5, B7) are equal to zero. So, it is not listed in the result tables.

Environmental Impact Indicators: Optional

Environmental impact indicators	Units	Sum	Manufacturing (A1-A3)	Distribution (A4)	Installation (A5)	Use (B1-B6)*	End of Life (C1-C4)	Maintenance (B2)	Operational energy use (B6)		Benefits and loads beyond the system boundaries (Module D)
Ecotoxicity, freshwater	CTUe	1.93E+02	8.18E+01	3.93E-02	9.11E-01	9.20E+01	1.79E+01	3.59E+01	5.60E+01		-3.55E+01
Human toxicity, cancer	CTUh-c	3.98E-07	1.03E-07	1.03E-12	8.06E-09	1.45E-07	1.42E-07	1.45E-07	6.07E-10		-8.95E-08
Human toxicity, non-cancer	CTUh-nc	1.91E-06	9.67E-07	1.11E-10	3.89E-10	9.23E-07	1.67E-08	8.99E-07	2.41E-08		-7.90E-07
Ionising radiation, human health	kBq U235 eq.	9.56E+01	8.75E+01	1.42E-04	1.16E-02	7.81E+00	2.46E-01	7.84E-02	7.74E+00		-1.38E+00
Land use	--	2.45E-01	9.55E-03	0.00E+00	1.66E-02	1.04E-01	1.15E-01	0.00E+00	1.04E-01		-5.22E-03
EF-particulate Matter	Disease occurrence	5.02E-07	1.93E-07	3.01E-09	1.91E-09	2.86E-07	1.83E-08	5.52E-08	2.30E-07		-7.39E-08
Total Primary Energy	MJ	2.81E+02	6.00E+01	8.15E-01	1.11E+00	1.81E+02	3.85E+01	2.27E+01	1.58E+02		-3.77E+01

*__Note__: B2 (Maintenance) and B6 (energy requirements during the use stage) are considered. Other sub modules in the use stage (B1, B3-B5, B7) are equal to zero. So, it is not listed in the result tables.

Environmental Impact considering for Declared Unit

Environmental Impact Indicators: Mandatory

Environmental impact indicators	Units	Sum	Manufacturing (A1-A3)	Distribution (A4)	Installation (A5)	Use (B1-B6)*	End of Life (C1-C4)	Maintenance (B2)	Operational energy use (B6)	Benefits and loads beyond the system boundaries (Module D)
Resource use, minerals and metals	kg SB eq.	8.82E-02	5.30E-02	9.93E-08	4.23E-08	3.52E-02	3.44E-05	3.51E-02	4.07E-05	-5.05E-02
Resource use, fossils	MJ	1.95E+04	2.48E+03	3.52E+01	3.67E+01	1.53E+04	1.66E+03	9.81E+02	1.43E+04	-1.59E+03
Acidification	mole of H+ eq.	5.31E+00	1.44E+00	1.60E-02	1.23E-02	3.69E+00	1.53E-01	4.83E-01	3.21E+00	-5.48E-01
Eutrophication, freshwater	kg P eq.	3.39E-03	4.28E-04	9.46E-07	4.54E-05	1.76E-03	1.16E-03	2.18E-04	1.54E-03	-1.90E-04
Eutrophication marine	kg N eq.	7.05E-01	2.03E-01	7.48E-03	5.27E-03	4.60E-01	2.98E-02	9.53E-02	3.64E-01	-5.21E-02
Eutrophication, terrestrial	mol N eq.	9.13E+00	2.19E+00	8.21E-02	4.37E-02	6.57E+00	2.48E-01	1.10E+00	5.47E+00	-5.49E-01
Climate change	kg CO_2 eq.	8.22E+02	1.59E+02	2.52E+00	6.72E+00	6.22E+02	3.17E+01	6.02E+01	5.62E+02	-6.25E+01
Climate change-Biogenic	kg CO_2 eq.	3.13E+00	5.07E-01	0.00E+00	1.81E+00	7.47E-01	6.42E-02	-2.38E-03	7.50E-01	-3.43E-01
Climate change-Fossil	kg CO_2 eq.	8.19E+02	1.58E+02	2.52E+00	4.90E+00	6.21E+02	3.16E+01	6.02E+01	5.61E+02	-6.22E+01
Climate change-Land use and land use change	kg CO_2 eq.	5.80E-05	5.63E-05	0.00E+00	1.09E-06	0.00E+00	5.94E-07	0.00E+00	0.00E+00	-5.00E-05
Ozone depletion	kg CFC-11 eq.	6.02E-05	2.52E-05	3.87E-09	4.76E-08	3.27E-05	2.20E-06	3.03E-05	2.40E-06	-6.85E-06
Photochemical ozone formation - human health	kg NMVOC eq.	2.39E+00	7.07E-01	2.07E-02	1.02E-02	1.56E+00	9.04E-02	3.90E-01	1.17E+00	-2.07E-01
Water use	m3 eq.	2.31E+02	6.09E+01	9.57E-03	7.60E-01	3.16E+01	1.37E+02	1.17E+01	1.99E+01	-2.48E+01

*__Note__: B2 (Maintenance) and B6 (energy requirements during the use stage) are considered. Other sub modules in the use stage (B1, B3-B5, B7) are equal to zero. So, it is not listed in the result tables.

Inventory Flow Indicators: Mandatory

Inventory flow indicators	Units	Sum	Manufacturing (A1-A3)	Distribution (A4)	Installation (A5)	Use (B1-B6)*	End of Life (C1-C4)	Maintenance (B2)	Operational energy use (B6)	Benefits and loads beyond the system boundaries (Module D)
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2.79E+03	2.35E+01	4.69E-02	1.12E+01	2.75E+03	1.96E+00	9.50E-01	2.75E+03	1.49E+01
Use of renewable primary energy resources used as raw material	MJ	8.29E+01	8.29E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-5.19E+01
Total use of renewable primary energy resources	MJ	2.87E+03	1.06E+02	4.69E-02	1.12E+01	2.75E+03	1.96E+00	9.50E-01	2.75E+03	-3.70E+01
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.94E+04	2.39E+03	3.52E+01	3.67E+01	1.53E+04	1.66E+03	9.68E+02	1.43E+04	-1.51E+03
Use of non renewable primary energy resources used as raw material	MJ	1.09E+02	9.50E+01	0.00E+00	0.00E+00	1.36E+01	0.00E+00	1.36E+01	0.00E+00	-7.99E+01
Total use of non-renewable primary energy resources	MJ	1.95E+04	2.48E+03	3.52E+01	3.67E+01	1.53E+04	1.66E+03	9.81E+02	1.43E+04	-1.59E+03
Use of secondary material	kg	1.43E-04	1.43E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Net use of freshwater	m3	5.74E+00	1.42E+00	2.23E-04	1.77E-02	7.36E-01	3.57E+00	2.73E-01	4.63E-01		-5.78E-01
Components for reuse	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Materials for recycling	kg	8.06E+00	8.31E-05	0.00E+00	5.67E-01	0.00E+00	7.50E+00	0.00E+00	0.00E+00		0.00E+00
Materials for energy recovery	kg	5.17E-01	6.96E-03	0.00E+00	4.67E-01	0.00E+00	4.32E-02	0.00E+00	0.00E+00		0.00E+00
Exported Energy	MJ	8.70E-01	4.79E-03	0.00E+00	0.00E+00	4.31E-01	4.34E-01	4.31E-01	0.00E+00		0.00E+00
Hazardous waste disposed	kg	1.36E+02	6.77E+01	0.00E+00	7.62E-02	2.84E+01	4.03E+01	1.79E+01	1.05E+01		-2.01E+01
Non hazardous waste disposed	kg	1.64E+02	7.12E+01	8.85E-02	3.03E+00	8.45E+01	4.95E+00	3.68E+00	8.08E+01		-1.21E+02
Radioactive waste disposed	kg	3.77E-02	1.22E-02	6.30E-05	2.29E-04	2.35E-02	1.67E-03	6.58E-03	1.69E-02		-1.23E-02
Biogenic carbon content of the product	kg C	1.12E-02	1.12E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Biogenic carbon content of the associated packaging	kg C	1.43E+00	1.43E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00

*__Note__: B2 (Maintenance) and B6 (energy requirements during the use stage) are considered. Other sub modules in the use stage (B1, B3-B5, B7) are equal to zero. So, it is not listed in the result tables.

Environmental Impact Indicators: Optional

Environmental impact indicators	Units	Sum	Manufacturing (A1-A3)	Distribution (A4)	Installation (A5)	Use (B1-B6)*	End of Life (C1-C4)	Maintenance (B2)	Operational energy use (B6)		Benefits and loads beyond the system boundaries (Module D)
Ecotoxicity, freshwater	CTUe	1.20E+04	3.53E+03	1.70E+00	3.94E+01	7.60E+03	7.74E+02	1.55E+03	6.05E+03		-1.54E+03
Human toxicity, cancer	CTUh-c	1.72E-05	4.43E-06	4.43E-11	3.48E-07	6.32E-06	6.15E-06	6.26E-06	6.55E-08		-3.87E-06
Human toxicity, non-cancer	CTUh-nc	8.39E-05	4.18E-05	4.79E-09	1.68E-08	4.14E-05	7.23E-07	3.88E-05	2.60E-06		-3.41E-05
Ionising radiation, human health	kBq U235 eq.	4.63E+03	3.78E+03	6.14E-03	5.03E-01	8.39E+02	1.06E+01	3.39E+00	8.36E+02		-5.95E+01
Land use	--	1.73E+01	4.13E-01	0.00E+00	7.15E-01	1.12E+01	4.97E+00	0.00E+00	1.12E+01		-2.26E-01
EF-particulate Matter	Disease occurrence	3.66E-05	8.34E-06	1.30E-07	8.24E-08	2.73E-05	7.93E-07	2.39E-06	2.49E-05		-3.19E-06
Total Primary Energy	MJ	2.24E+04	2.59E+03	3.52E+01	4.79E+01	1.80E+04	1.67E+03	9.82E+02	1.71E+04		-1.63E+03

*__Note__: B2 (Maintenance) and B6 (energy requirements during the use stage) are considered. Other sub modules in the use stage (B1, B3-B5, B7) are equal to zero. So, it is not listed in the result tables.

To evaluate the environmental impact of other product covered by this PEP, apply the following conversion factors to the Environmental Impact shown above. The extrapolation factors are calculated based on the PSR 10 section 3.6.:

Conversion Factors for Manufacturing, Distribution, Installation, Use and End-of-Life Phase for all environmental impact of declared unit:

Product Number	Manufacturing	Distribution	Installation	Use-B2	Use -B6	End of Life
5P1550IRG2 (Reference-Declared unit)	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**
5P1150IRG2	0.80	0.80	0.86	0.80	0.76	0.79
5P850IRG2	0.78	0.78	0.86	0.78	0.64	0.77
5P650IRG2	0.49	0.49	0.32	0.49	0.70	0.53

Above extrapolation factor needs to be multiplied to declared unit environmental impacts. To get functional unit impacts, the declared unit results of specific product number need to be divided by below factors calculated as per PSR10 section 3.1.3:

Product No.	Product Description	FU factor for Use B6	FU factor for other phases (Excluding B6)
5P1550IRG2 (Reference)	**Eaton 5P 1550i Rack 1U G2**	**108.0**	**43.2**
5P650IRG2	Eaton 5P 650i Rack 1U G2	41.6	9.2
5P850IRG2	Eaton 5P 850i Rack 1U G2	54.4	42.4
5P1150IRG2	Eaton 5P 1150i Rack 1U G2	73.6	45.6

Note: Since the reference product operates at different load conditions, below table indicates the typical operating power and their respective back up time

Product No.	Typical operating power (W)	Backup time at typical load (min)
5P1550IRG2 (Reference)	**1000**	**5**
5P650IRG2	400	3
5P850IRG2	600	5
5P1150IRG2	800	4

Disclaimer

This Product Environmental Profile and its content is based on information available to us. It refers to the product at the date of issue. We make no express or implied representations or warranties with respect to the information contained herein.

Registration number:	EATO-00153-V01.01-EN	*Drafting rules*	PCR-ed4-EN-2021 09 06
Verifier accreditation number:	VH54	Supplemented by	PSR-0010-ed2-EN-2023 12 08
Date of issue	04-2024	*Information and reference documents*	www.pep-ecopassport.org
		Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14025: 2006			
Internal	X	External	
The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDemain)			
PEPs are compliant with XP C08-100-1:2016 or EN 50693:2019 *The components of the present PEP may not be compared with components from any other program.*			
Document complies with ISO 14025:2006 "Environmental labels and declarations. Type III environmental declarations"			