



CI48-250 NA
(CI Distribution enclosure)

Representative product	CI48-250 NA (Y7-2254) Product Category: Unequipped enclosures and cabinets																				
Description of the product	Eaton's all-insulated Ci power distribution enclosures have been designed to meet the most stringent requirements and offer a consistent system for up to 1600 A. These all-insulated distribution enclosures provide an IP65 degree of protection and are insensitive to almost any environmental impact such as dust, moisture, and water. Enclosure made of Polycarbonate. It makes CI insulated enclosures shock-proof and resistant to acrid smoke. The cover is designed to rest on four spring-loaded fittings, providing stability along with the stable carrier-frame profiles. Captive, foamed sealings enhance its reliability, while wedge-type connectors made of insulating material interconnect the enclosures seamlessly. Additionally, the system includes transparent covers and is consistent for applications up to 1600 A																				
Environmental homogeneous Family	The PEP covers following part numbers : <table border="1" data-bbox="383 1341 1215 1499"> <tr> <td>Y7-2253</td><td>Y7-264023</td><td>Y7-264024</td><td>Y7-2250</td><td>Y7-2213</td></tr> <tr> <td>Y7-2224</td><td>Y7-2249</td><td>Y7-2220</td><td>Y7-2246</td><td>Y7-2237</td></tr> <tr> <td>Y7-2219</td><td>Y7-2245</td><td>Y7-2218</td><td>Y7-2242</td><td>Y7-2212</td></tr> <tr> <td>Y7-2217</td><td>Y7-2241</td><td>Y7-2232</td><td>Y7-2238</td><td>Y7-2209</td></tr> </table>	Y7-2253	Y7-264023	Y7-264024	Y7-2250	Y7-2213	Y7-2224	Y7-2249	Y7-2220	Y7-2246	Y7-2237	Y7-2219	Y7-2245	Y7-2218	Y7-2242	Y7-2212	Y7-2217	Y7-2241	Y7-2232	Y7-2238	Y7-2209
Y7-2253	Y7-264023	Y7-264024	Y7-2250	Y7-2213																	
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Y7-2217	Y7-2241	Y7-2232	Y7-2238	Y7-2209																	
Functional unit	Protect people from direct contact with live active parts and ensure the grouping of control, command and protection devices in a single enclosure or cabinet having the following dimensions 796 x 421 x 275 with rated current 1600 A, while protecting them against mechanical impacts (IK10) and the penetration of solid objects and liquids (IP65), according to the appropriate use scenario, and for the reference service life of the product of 20 years.																				
Company information	Eaton Industries (Austria) GmbH Eugenia 1, 3943 Schrems, Austria Email: productstewardship-es@eaton.com																				

Constituent Materials of Reference Product:			
Materials	Category PEP Material	Mass (kg)	Percentage (%)
Plastics	Polycarbonate	5.63E+00	70.7%
Others	Glass fiber	1.37E+00	17.2%
Others	Cardboard	7.37E-01	9.3%
Others	Wood	1.89E-01	2.4%
Plastics	Polyethylene	3.79E-02	0.5%
Total		7.96E+00	100.0%

Additional Environmental Information	
Manufacturing	The reference product is assembled at an Eaton plant holding management system certifications according to ISO 14001 standards.
Distribution	Eaton is committed to minimizing weight and volume of product and packaging 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 do not consume any energy or do not have any heat losses in Use Phase End-of-Life.
End of life	100% incineration without energy recovery is considered for as customer location is North America.

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 v6.2.2-10 with database version CODDE-2024-04. Indicators Set used: PEF EF 3.1 (Compliance: PEP ed.4, EN15804+A2) v1.0	
Manufacturing Phase	The product is assembled as well as packed at Eaton facility Eaton Industries (Austria) GmbH Eugenia 1, 3943 Schrems, Austria. Energy Model: Europe
Distribution Phase	Distribution of the product in its packaging from the Eaton's last logistics platform to the installation place in North America. Energy Model: Europe
Installation Phase	Product is installed in North America and treatment of packaging waste are considered in this phase. Energy Model: Europe
Use Phase	Product do not consume any energy or do not have any heat losses in Use Phase End-of-Life.
End of life Phase	Product disposed with WEEE guidelines. Energy Model: Europe

Environmental Impact for Functional Unit

Environmental Impact Indicators: Mandatory

Mandatory environmental impact indicators	Units	Sum	A1-A3 - Manufacturing	A4 - Distribution	A5 - Installation	B1-B7 - Use	C1-C4 - End of life	D - Benefits and loads beyond the system boundaries
Climate change - total	kg CO2 eq.	4.61E+01	2.94E+01	2.42E+00	1.89E-02	0.00E+00	1.43E+01	0.00E+00
Climate change - fossil fuels	kg CO2 eq.	4.61E+01	2.94E+01	2.42E+00	1.89E-02	0.00E+00	1.43E+01	0.00E+00
Climate change - biogenics	kg CO2 eq.	3.17E-02	1.70E-02	0.00E+00	-1.29E-05	0.00E+00	1.47E-02	0.00E+00
Climate change - land use and land use transformation	kg CO2 eq.	8.36E-03	8.36E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ozone depletion	kg eq. CFC-11	8.20E-07	7.52E-07	3.18E-09	8.96E-10	0.00E+00	6.40E-08	0.00E+00
Acidification (AP)	mole of H+ eq.	1.67E-01	8.10E-02	8.02E-02	2.85E-04	0.00E+00	5.48E-03	0.00E+00
Freshwater eutrophication	kg P eq.	1.77E-04	1.75E-04	8.36E-07	1.11E-07	0.00E+00	1.95E-07	0.00E+00
Marine aquatic eutrophication	kg of N eq.	3.78E-02	1.70E-02	1.91E-02	1.35E-04	0.00E+00	1.57E-03	0.00E+00
Terrestrial eutrophication	mole of N eq.	4.56E-01	2.25E-01	2.09E-01	1.36E-03	0.00E+00	2.03E-02	0.00E+00
Photochemical ozone formation	kg of NMVOC eq.	1.22E-01	6.34E-02	5.39E-02	3.26E-04	0.00E+00	4.69E-03	0.00E+00
Depletion of abiotic resources - elements	kg eq. Sb	3.93E-06	4.61E-06	8.69E-08	8.59E-10	0.00E+00	-7.71E-07	0.00E+00
Depletion of abiotic resources - fossil fuels	MJ	8.17E+02	7.72E+02	3.08E+01	2.15E-01	0.00E+00	1.35E+01	0.00E+00
Water scarcity	m3 of eq.. deprivation worldwide	7.39E+00	5.90E+00	8.02E-03	5.37E-02	0.00E+00	1.42E+00	0.00E+00

Inventory Flow Indicators: Mandatory

Inventory flow indicators	Units	Sum	A1-A3 - Manufacturing	A4 - Distribution	A5 - Installation	B1-B7 - Use	C1-C4 - End of life	D - Benefits and loads beyond the system boundaries
Use of renewable primary energy, excluding renewable primary energy resources used as raw materials	MJ	6.48E+01	6.47E+01	3.94E-02	1.28E-04	0.00E+00	6.28E-02	0.00E+00
Use of renewable primary energy resources used as raw materials	MJ	1.79E+01	1.79E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	8.27E+01	8.26E+01	3.94E-02	1.28E-04	0.00E+00	6.28E-02	0.00E+00
Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials	MJ	6.23E+02	5.78E+02	3.08E+01	2.15E-01	0.00E+00	1.35E+01	0.00E+00
Use of non-renewable primary energy resources used as raw materials	MJ	1.94E+02	1.94E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	8.17E+02	7.72E+02	3.08E+01	2.15E-01	0.00E+00	1.35E+01	0.00E+00
Use of secondary materials	kg	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
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
Net use of fresh water	m3	1.72E-01	1.38E-01	1.87E-04	1.25E-03	0.00E+00	3.32E-02	0.00E+00

Hazardous waste disposed of	kg	7.64E+00	6.20E-01	0.00E+00	1.35E-04	0.00E+00	7.02E+00		0.00E+00
Non-hazardous waste disposed of	kg	2.81E+01	1.93E+01	7.44E-02	5.87E-01	0.00E+00	8.19E+00		0.00E+00
Radioactive waste disposed of	kg	9.96E-03	9.62E-03	5.18E-05	3.95E-07	0.00E+00	2.86E-04		0.00E+00
Components for re-use	kg	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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Materials for energy recovery	kg	1.14E-01	1.14E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Exported energy	MJ by energy vector	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 product	kg of C.	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 of C.	3.15E-01	3.15E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00

Environmental Impact Indicators: Optional

Optional Environmental impact indicators	Units	Sum	A1-A3 - Manufacturing	A4 - Distribution	A5 - Installation	B1-B7 - Use	C1-C4 - End of life	D - Benefits and loads beyond the system boundaries
Emission of fine particles	incidence of diseases	1.09E-06	6.30E-07	4.25E-07	1.07E-09	0.00E+00	3.51E-08	0.00E+00
Ionizing radiation, human health	kBq of U235 eq.	2.04E+01	2.03E+01	5.05E-03	1.66E-04	0.00E+00	1.39E-01	0.00E+00
Ecotoxicity, fresh water	CTUe	3.15E+02	3.09E+02	1.45E+00	2.10E+00	0.00E+00	2.49E+00	0.00E+00
Human toxicity, cancer effects	CTUh	1.50E-07	1.45E-07	3.63E-11	4.69E-09	0.00E+00	1.68E-10	0.00E+00
Human toxicity, non-cancer effects	CTUh	2.32E-07	2.21E-07	8.03E-10	1.31E-09	0.00E+00	8.82E-09	0.00E+00
Impacts related to land use/soil quality	-	2.34E+01	2.34E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of primary energy during the life cycle	MJ	8.99E+02	8.55E+02	3.08E+01	2.15E-01	0.00E+00	1.35E+01	0.00E+00

To evaluate the environmental impact of other products covered by this PEP, multiply the impact figures by following factors-

Factors for Manufacturing, Distribution, Installation, Use, End-of-Life Phase:

Part Number	Description	All Phases environmental Indicators
Y7-2254 (REFERENCE)	CI48-250-NA	1.00
Y7-2253	CI48-200-NA	0.95
Y7-264023	CI45X-200-NA	0.70
Y7-264024	CI45-200-NA	0.50
Y7-2250	CI44-250-NA	0.61
Y7-2224	CI44X-250-NA	0.53
Y7-2249	CI44-200-NA	0.57
Y7-2220	CI44X-200-NA	0.50
Y7-2246	CI44-150-NA	0.52
Y7-2219	CI44X-150-NA	0.44
Y7-2245	CI44-125-NA	0.49
Y7-2218	CI44X-125-NA	0.41
Y7-2242	CI43-200-NA	0.44
Y7-2217	CI43X-200-NA	0.38
Y7-2241	CI43-150-NA	0.41
Y7-2232	CI43X-150-NA	0.35
Y7-2238	CI43-125-NA	0.38
Y7-2213	CI43X-125-NA	0.32
Y7-2237	CI23-150-NA	0.29
Y7-2212	CI23X-150-NA	0.23
Y7-2234	CI23-125-NA	0.27
Y7-2209	CI23X-125-NA	0.21

Disclaimer

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<i>Verifier accreditation number:</i>	VH54	Supplemented by	PSR-0005-ed3.1-EN-2023 12 08
<i>Date of issue</i>	09-2024	<i>Information and reference documents</i>	www.pep-ecopassport.org
		<i>Validity period</i>	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 and 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"			
			