

Product Environmental Profile

Symmetra PX Power Module





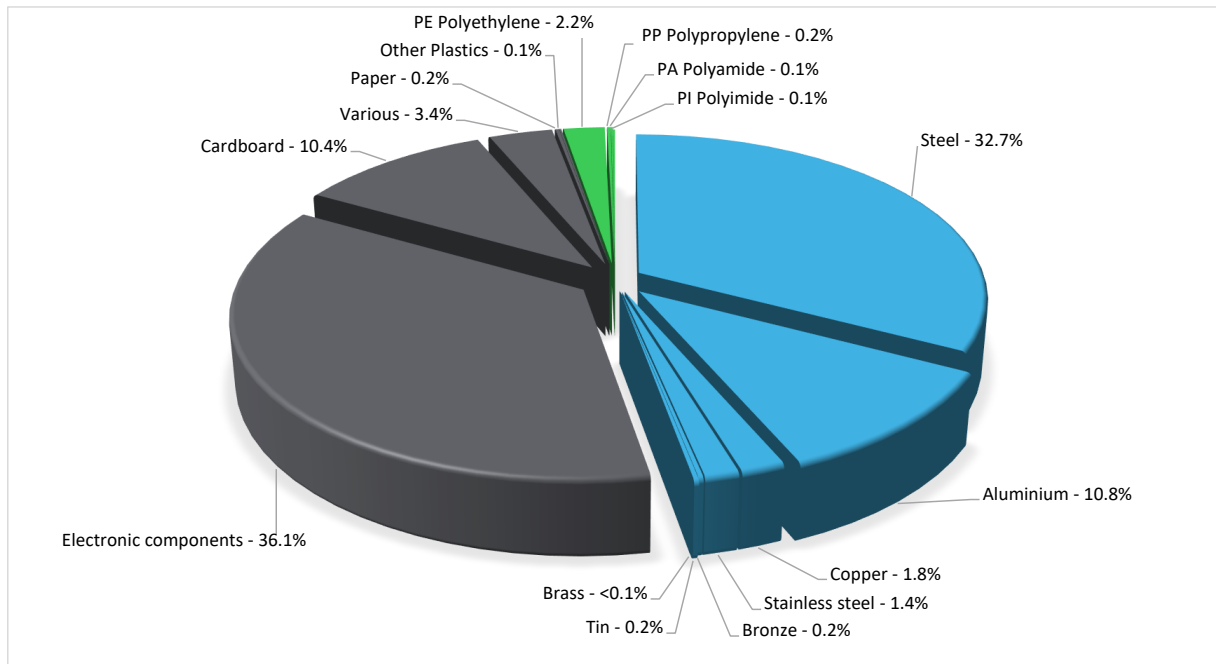
General information

Reference product	Symmetra PX 10kW Power Module, 208V, High Efficiency - SYPM10KF2																														
Description of the product	A 10kW power module compatible with the Symmetra PX 20/40/100 UPS. Available as a power module replacement, or for increased capacity.																														
Description of the range	The environmental impacts of this reference product are representative of the impacts of the other products of the range which are developed with a similar technology. The products of the range are: Symmetra Power Module <table border="1"> <thead> <tr> <th>Linked products</th> <th>Type</th> <th>Net weight (kg)</th> <th>Weight with packaging (kg)</th> <th>Dimension (mm) HxWxD</th> <th>Power Module Rating (PF=1)</th> </tr> </thead> <tbody> <tr> <td>SYPM10K16H</td> <td>APC Symmetra PX Power Module, 10/16kW, 400V</td> <td>28.50</td> <td>31.50</td> <td>132 x 483 x 700</td> <td>16kVA/16kW</td> </tr> <tr> <td>SYPM10KE</td> <td>Symmetra PX 10kW Power Module, 200/208V, Japan</td> <td>29.55</td> <td>31.82</td> <td>133 x 432 x 610</td> <td>10kVA/10kW</td> </tr> <tr> <td>SYPM10KF2</td> <td>Symmetra PX 10kW Power Module, 208V, High Efficiency</td> <td>25.10</td> <td>28.45</td> <td>132 x 483 x 700</td> <td>10kVA/10kW</td> </tr> <tr> <td>SYPM25KD</td> <td>APC Symmetra PX 25kW Power Module, 400/480V</td> <td>42.00</td> <td>48.18</td> <td>173 x 452 x 705</td> <td>25kVA/25kW</td> </tr> </tbody> </table>	Linked products	Type	Net weight (kg)	Weight with packaging (kg)	Dimension (mm) HxWxD	Power Module Rating (PF=1)	SYPM10K16H	APC Symmetra PX Power Module, 10/16kW, 400V	28.50	31.50	132 x 483 x 700	16kVA/16kW	SYPM10KE	Symmetra PX 10kW Power Module, 200/208V, Japan	29.55	31.82	133 x 432 x 610	10kVA/10kW	SYPM10KF2	Symmetra PX 10kW Power Module, 208V, High Efficiency	25.10	28.45	132 x 483 x 700	10kVA/10kW	SYPM25KD	APC Symmetra PX 25kW Power Module, 400/480V	42.00	48.18	173 x 452 x 705	25kVA/25kW
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SYPM25KD	APC Symmetra PX 25kW Power Module, 400/480V	42.00	48.18	173 x 452 x 705	25kVA/25kW																										
Functional unit	To ensure the supply of power to remain within specified characteristics to equipment with load of 100 watts for a RSL of 1 year.																														
Specifications are:	To ensure the supply of power to remain within specified characteristics to equipment with load of 10k watts for a RSL of 15 years.																														



Constituent materials

Reference product mass	28.45 kg including the product, its packaging, additional elements and accessories
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Plastics	2.6%
Metals	47.1%
Others	50.3%



Substance assessment

RoHS compliance	Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 8 June 2011) on restriction of lead, mercury, cadmium, hexavalent chromium or flame retardants -PBB&PBDE or phthalates-DEHP, BBP, DBP, DIBP.
REACH compliance	Products of this range are designed in conformity with the requirements of the REACH 1907/2006 regulation and its latest updates.

Details of ROHS and REACH substances information are available on the Schneider-Electric website
<https://www.se.com>

Additional environmental information

End Of Life	Recyclability potential:	52%	The recyclability rate was calculated from the recycling rates of each material making up the product based on REEECYLAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the EIME database and the related PSR was taken. If no data was found a conservative assumption was used (0% recyclability).
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Environmental impacts

Reference service life time	15 years				
Product category	Uninterruptible Power Supply (UPS) - without energy storage system incorporated - P > 10000W				
Life cycle of the product	The manufacturing, the distribution, the installation, the use and the end of life were taken into consideration in this study				
Electricity consumption	The electricity consumed during manufacturing processes is considered for each part of the product individually, the final assembly generates a negligible consumption				
Installation elements	The product does not need specific tools or services, only packaging of the product needs to be eliminated.				
Use scenario	Power consumption conforms to the requirements in PSR-0010-ed2-EN-2023 12 08_UPS:				
	Load rate	25%	50%	75%	100%
	Proportion of time at specified load	0.25	0.5	0.25	0
	The referent power module is modeled to operate in normal mode (average efficiency of 93.9% and annual use of 2567.78 kWh) 100% of the time within 15 years.				
	Linked products	Type	Average energy efficiency	Electricity consumption (kWh over 15 years)	
	SYPM10K16H	APC Symmetra PX Power Module, 10/16kW, 400V	95.4%	29,401	
	SYPM10KE	Symmetra PX 10kW Power Module, 200/208V, Japan	93.9%	38,517	
	SYPM10KF2	Symmetra PX 10kW Power Module, 208V, High Efficiency	93.9%	38,517	
	SYPM25KD	APC Symmetra PX 25kW Power Module, 400/480V	96.1%	61,963	
	*For the range consistency, 10kW model uses the same efficiency method and lifetime as the rest models of the Symmetra Power Module				
Time representativeness	The collected data are representative of the year 2025				
Technological representativeness	The Modules of Technologies such as material production, manufacturing processes and transport technology used in the PEP analysis (LCA EIME in the case) are Similar and representative of the actual type of technologies used to make the product.				
Geographical representativeness	Final assembly site	Use phase		End-of-life	
	Philippine	US		US	
Energy model used	[A1 - A3]	[A5]	[B6]	[C1 - C4]	
	Electricity Mix; Low voltage; 2020; Indonesia, ID	No energy used	Electricity Mix; Low voltage; 2020; United States, US	Global, European and French datasets are used.	

Detailed results of the optional indicators mentioned in PCRed4 are available in the LCA report and on demand in a digital format - Country Customer Care Center - <http://www.se.com/contact>

The calculation result is scientific counting method. For example, 1.37E+06=1.37*10^6=1370000, 1.64E-04=1.64*10^(-4)=0.000164

All environmental impacts are calculated for the declared unit, then data should be divided by the factor calculated with formulas listed in PSR-0010-ed2.0-EN 2023 12 08 3.1.3 to get the functional unit result (Please refer to the subsequent section entitled "Functional Unit").

Mandatory Indicators		Symmetra PX Power Module - SYPM10KF2						
Impact indicators	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads
Contribution to climate change	kg CO2 eq	1.92E+04	6.49E+02	1.28E+01	6.54E+00	1.85E+04	5.44E+01	-8.24E+01
Contribution to climate change-fossil	kg CO2 eq	1.91E+04	6.52E+02	1.28E+01	0*	1.84E+04	5.36E+01	-8.09E+01
Contribution to climate change-biogenic	kg CO2 eq	9.81E+01	0*	0*	4.85E+00	9.57E+01	7.75E-01	-1.48E+00
Contribution to climate change-land use and land use change	kg CO2 eq	8.50E-05	7.84E-05	0*	1.03E-08	0*	6.61E-06	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	1.92E-04	1.08E-04	1.13E-05	3.77E-08	7.17E-05	7.67E-07	-1.21E-05
Contribution to acidification	mol H+ eq	8.87E+01	4.04E+00	5.57E-02	0*	8.44E+01	1.25E-01	-5.87E-01
Contribution to eutrophication, freshwater	kg P eq	3.36E-02	2.49E-03	0*	0*	3.07E-02	3.27E-04	-2.26E-04
Contribution to eutrophication, marine	kg N eq	1.12E+01	4.91E-01	2.56E-02	1.61E-03	1.06E+01	3.09E-02	-4.66E-02
Contribution to eutrophication, terrestrial	mol N eq	1.32E+02	5.43E+00	2.77E-01	2.14E-02	1.26E+02	3.33E-01	-5.27E-01
Contribution to photochemical ozone formation - human health	kg COVNM eq	3.70E+01	1.64E+00	9.09E-02	4.53E-03	3.51E+01	8.85E-02	-1.84E-01
Contribution to resource use, minerals and metals	kg Sb eq	5.45E-01	5.42E-01	0*	0*	2.81E-03	0*	-1.27E-02
Contribution to resource use, fossils	MJ	4.11E+05	8.41E+03	1.59E+02	0*	4.02E+05	3.19E+02	-1.47E+03
Contribution to water use	m3 eq	-1.36E+03	-2.30E+03	0*	0*	0*	0*	-2.87E+01

Inventory flows Indicators		Symmetra PX Power Module - SYPM10KF2						
Inventory flows	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads
Contribution to renewable primary energy used as energy	MJ	4.97E+04	6.55E+02	0*	0*	4.90E+04	1.55E+01	-3.68E+01
Contribution to renewable primary energy used as raw material	MJ	1.86E+01	1.86E+01	0*	0*	0*	0*	0.00E+00
Contribution to total renewable primary energy	MJ	4.97E+04	6.73E+02	0*	0*	4.90E+04	1.55E+01	-3.68E+01
Contribution to non renewable primary energy used as energy	MJ	4.11E+05	8.23E+03	1.59E+02	0*	4.02E+05	3.19E+02	-1.47E+03
Contribution to non renewable primary energy used as raw material	MJ	1.85E+02	1.85E+02	0*	0*	0*	0*	0.00E+00
Contribution to total non renewable primary energy	MJ	4.11E+05	8.41E+03	1.59E+02	0*	4.02E+05	3.19E+02	-1.47E+03
Contribution to use of secondary material	kg	2.41E+00	2.41E+00	0*	0*	0*	0*	0.00E+00
Contribution to use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to net use of fresh water	m³	-3.17E+01	-5.36E+01	0*	0*	0*	0*	-6.67E-01
Contribution to hazardous waste disposed	kg	2.98E+03	2.62E+03	0*	1.13E+00	3.47E+02	1.07E+01	-9.98E+02
Contribution to non hazardous waste disposed	kg	3.08E+03	3.22E+02	0*	4.41E-01	2.74E+03	1.54E+01	-1.04E+02
Contribution to radioactive waste disposed	kg	8.25E-01	1.73E-01	2.55E-03	0*	6.48E-01	8.66E-04	-7.24E-02
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	1.68E+01	3.25E+00	0*	0*	0*	1.35E+01	0.00E+00
Contribution to materials for energy recovery	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to exported energy	MJ	1.65E-01	3.19E-02	0*	0*	0*	1.34E-01	0.00E+00

* represents less than 0.01% of the total life cycle of the reference flow

Contribution to biogenic carbon content of the product kg of C 0.00E+00

Contribution to biogenic carbon content of the associated packaging kg of C 8.74E-01

* The calculation of the biogenic carbon is based on the Ademe for the Cardboard (28%), EN16485 for Wood (39,52%), and APESA/RECORD for Paper (37,8%)

i Functional Unit Result

Mandatory Indicators		Symmetra PX Power Module - SYPM10KF2						
Impact indicators	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads
Contribution to climate change	kg CO ₂ eq	1.28E+01	4.33E-01	8.53E-03	4.36E-03	1.24E+01	3.63E-02	-5.49E-02
Contribution to climate change-fossil	kg CO ₂ eq	1.28E+01	4.35E-01	8.53E-03	0*	1.23E+01	3.58E-02	-5.39E-02
Contribution to climate change-biogenic	kg CO ₂ eq	6.75E-02	0*	0*	3.23E-03	6.38E-02	5.17E-04	-9.88E-04
Contribution to climate change-land use and land use change	kg CO ₂ eq	5.67E-08	5.23E-08	0*	6.86E-12	0*	4.41E-09	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	1.28E-07	7.20E-08	7.54E-09	2.52E-11	4.78E-08	5.11E-10	-8.09E-09
Contribution to acidification	mol H ⁺ eq	5.91E-02	2.69E-03	3.71E-05	0*	5.63E-02	8.32E-05	-3.91E-04
Contribution to eutrophication, freshwater	kg P eq	2.24E-05	1.66E-06	0*	0*	2.05E-05	2.18E-07	-1.51E-07
Contribution to eutrophication, marine	kg N eq	7.45E-03	3.27E-04	1.71E-05	1.08E-06	7.09E-03	2.06E-05	-3.11E-05
Contribution to eutrophication, terrestrial	mol N eq	8.78E-02	3.62E-03	1.85E-04	1.42E-05	8.37E-02	2.22E-04	-3.51E-04
Contribution to photochemical ozone formation - human health	kg COVNM eq	2.46E-02	1.10E-03	6.06E-05	3.02E-06	2.34E-02	5.90E-05	-1.23E-04
Contribution to resource use, minerals and metals	kg Sb eq	3.63E-04	3.61E-04	0*	0*	1.87E-06	0*	-8.44E-06
Contribution to resource use, fossils	MJ	2.74E+02	5.61E+00	1.06E-01	0*	2.68E+02	2.13E-01	-9.82E-01
Contribution to water use	m³ eq	-1.53E+00	-1.53E+00	0*	0*	0*	0*	-1.91E-02

Inventory flows Indicators		Symmetra PX Power Module - SYPM10KF2						
Inventory flows	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads
Contribution to renewable primary energy used as energy	MJ	3.31E+01	4.36E-01	0*	0*	3.27E+01	1.04E-02	-2.45E-02
Contribution to renewable primary energy used as raw material	MJ	1.24E-02	1.24E-02	0*	0*	0*	0*	0.00E+00
Contribution to total renewable primary energy	MJ	3.31E+01	4.49E-01	0*	0*	3.27E+01	1.04E-02	-2.45E-02
Contribution to non renewable primary energy used as energy	MJ	2.74E+02	5.49E+00	1.06E-01	0*	2.68E+02	2.13E-01	-9.82E-01
Contribution to non renewable primary energy used as raw material	MJ	1.23E-01	1.23E-01	0*	0*	0*	0*	0.00E+00
Contribution to total non renewable primary energy	MJ	2.74E+02	5.61E+00	1.06E-01	0*	2.68E+02	2.13E-01	-9.82E-01
Contribution to use of secondary material	kg	1.60E-03	1.60E-03	0*	0*	0*	0*	0.00E+00
Contribution to use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to net use of fresh water	m³	-3.57E-02	-3.57E-02	0*	0*	0*	0*	-4.45E-04
Contribution to hazardous waste disposed	kg	1.98E+00	1.75E+00	0*	7.51E-04	2.31E-01	7.17E-03	-6.66E-01
Contribution to non hazardous waste disposed	kg	2.05E+00	2.15E-01	0*	2.94E-04	1.83E+00	1.03E-02	-6.95E-02
Contribution to radioactive waste disposed	kg	5.50E-04	1.16E-04	1.70E-06	0*	4.32E-04	5.77E-07	-4.83E-05
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	1.12E-02	2.17E-03	0*	0*	0*	9.00E-03	0.00E+00
Contribution to materials for energy recovery	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to exported energy	MJ	1.10E-04	2.13E-05	0*	0*	0*	8.90E-05	0.00E+00

* represents less than 0.01% of the total life cycle of the reference flow

Contribution to biogenic carbon content of the product	kg of C	0.00E+00
Contribution to biogenic carbon content of the associated packaging	kg of C	5.83E-04

* The calculation of the biogenic carbon is based on the Ademe for the Cardboard (28%), EN16485 for Wood (39,52%), and APESA/RECORD for Paper (37,8%)

Extrapolated Data

Product information	Symmetra PX Power Module	Referent product			
		SYPM10KF2	SYPM25KD	SYPM10KE	SYPM10K16H
Weight with Packaging (kg)		28.45	48.18	31.82	31.50
Compulsory environmental indicators (UPS in double conversion mode)	Contribution to climate change (kg CO ₂ eq)	1.92E+04	3.10E+04	1.93E+04	1.49E+04
	Contribution to Ozone depletion (kg CFC11 eq)	1.92E-04	3.19E-04	2.06E-04	1.88E-04
	Contribution to Acidification (mol H ⁺ eq)	8.87E+01	1.43E+02	8.92E+01	6.91E+01
	Contribution to eutrophication, freshwater (kg PO ₄ ³⁻ eq)	3.36E-02	5.42E-02	3.39E-02	2.66E-02
	Contribution to eutrophication marine (kg N eq)	1.12E+01	1.80E+01	1.12E+01	8.72E+00
	Contribution to eutrophication, terrestrial (mol N eq)	1.32E+02	2.12E+02	1.32E+02	1.03E+02
	Contribution to photochemical ozone formation - human health (kg COVNM eq)	3.70E+01	5.96E+01	3.72E+01	2.88E+01
	Contribution to resource use, minerals and metals (kgSbeq)	5.45E-01	9.22E-01	6.09E-01	6.02E-01
	Total use of primary energy (MJ)	4.60E+05	7.42E+05	4.62E+05	3.55E+05
Contribution to water use (m ³ eq)	-1.36E+03	-2.39E+03	-1.64E+03	-1.83E+03	

*The extrapolated data is calculated based on the environmental impact data of the declared unit.

Life cycle assessment performed with EIME version v6.2.4, database version 2025-04 in compliance with ISO14044, EF3.1 method is applied, for biogenic carbon storage, assessment methodology - 1/1 is used

According to this environmental analysis, proportionality rules may be used to evaluate the impacts of other products of this range, ratios to apply can be provided upon request

Please note that the values given above are only valid within the context specified and cannot be used directly to draw up the environmental assessment of an installation.

Registration number :	ENVPEP2511006_V1	Drafting rules	PEP-PCR-ed4-2021 09 06
Date of issue	11-2025	Supplemented by	PSR-0010-ed2-EN-2023 12 08
		Information and reference documents	www.pep-ecopassport.org
		Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14021 : 2016			
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 or NF E38-500 :2022			
The components of the present PEP may not be compared with components from any other program.			
Document complies with ISO 14021:2016 "Environmental labels and declarations. Type II environmental declarations"			

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