

Product Environmental Profile

Starline Track Busway 4 Circuit Tap-Offs w/ Molded Case Circuit Breakers, NEMA receptacles (up to 120A)



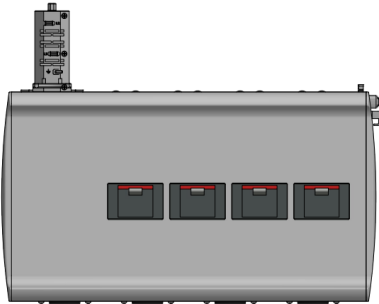
LEGRAND'S ENVIRONMENTAL COMMITMENTS

- Incorporate environmental management into our industrial sites
Of all Legrand sites worldwide, over 85% are ISO 14001-certified (sites belonging to the Group for more than five years).
- Offer our customers environmentally friendly solutions
Develop innovative solutions to help our customers design more energy efficient, better managed and more environmentally friendly installations.
- Involve the environment in product design and provide informations in compliance with ISO 14025
Reduce the environmental impact of products over their whole life cycle.
Provide our customers with all relevant information (composition, consumption, end of life, etc.).

For more information on Legrand's PEPs and other sustainability initiatives, visit www.legrand.us/about-us/csr/circular-economy



REFERENCE PRODUCT

Function	One fully assembled Tap Off Unit with 4 Molded Case Circuit Breakers that distribute up to 120A of current total across 4 circuits to connected equipment in data centers or other critical infrastructure continuously over 20 years via turn-lok receptacles.
Reference Product	
Part Number: UCT5C50S-25-4AABN CKT BKR, HSG GND, (4)L2220R, 20A, 480Y/277SV, 277/480LV, 25K, ETL, [STANDARD][SILVER][ABCN][ABCN][ABCN][ABCN]	

The company reserves the right to change specifications and designs without notice. All illustrations, descriptions, dimensions and weights in the document are for guidance and cannot be held binding on the company



PRODUCTS CONCERNED

The environmental data is representative of the following products:

All catalog codes beginning with UC-; followed by eT5-; followed by C- or D-; followed by 50-; followed by S- or R-; followed by -25-; followed by 4-; followed by AA-, AF-, AC-, AH-, EQ-, EW-, AT-, AE-, CX-, EO-, DB-, or CZ-; followed by F-,T-,L-,A-,B-,R-; followed by N.

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■ CONSTITUENT MATERIALS

This Reference Product contains no substances prohibited by the regulations applicable at the time of its introduction to the market. It respects the restrictions on use of hazardous substances as defined in the RoHS directive 2011/65/EU amended by delegated directive (EU) 2015/863, and its amendment 2017/2102/EU.

Total weight of Reference Product		11.37 kg			
Plastics as % of weight		Metals as % of weight		Others as % of weight	
Product only: 10.17 kg					
Other plastics	13.0%	Steel	40.1%	Various Components	1.2%
PA	2.7%	Aluminum	18.1%	Coating Paint	0.7%
PC	1.2%	Copper and copper alloys	9.7%		
PBT	0.7%	Other metals	0.5%		
ABS	0.6%				
PVC	0.4%				
Various plastics	<0.1%	Various metals	0.1%		
Packaging only: 1.20 kg					
PE (Packaging)	0.7%			Cardboard (Packaging)	5.1%
				Wood (Packaging)	4.8%
Total plastics	19.59%	Total metals	68.60%	Total others	11.81%

85% of the cardboard packaging comes from recycled material.



■ MANUFACTURING

This Reference Product comes from sites that has received ISO14001 certification.



■ DISTRIBUTION

Information on the distance of distribution is not available so the PCR hypothesis for "Intracontinental transport", 2175 miles (3500 km) by heavy truck, was used. This represents transportation of the Reference Product from our warehouse to the local point of distribution in the North American market.



■ INSTALLATION

For the installation of the product, only standard tools are needed.



■ USE

Under normal conditions of use, this product requires no servicing, no maintenance or additional products.

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END OF LIFE

The product end of life is taken into account during the design phase.



ENVIRONMENTAL IMPACTS

The evaluation of environmental impacts examines the stages of the Reference Product life cycle: manufacturing, distribution, installation, use and end of life. It is representative of products marketed and used in North America. The dataset used in this PEP is representative of the year 2024.

For each stage, the following modelling elements were taken into account at each life cycle stage (and module):

System Boundary	Manufacturing (A1-A3)	Materials and components of the product, all transport for the manufacturing, the packaging and the waste generated by the manufacturing.
	Distribution (A4)	Transport between the last distribution center and an average delivery point in the sales area.
	Installation (A5)	The end of life of the packaging.
	Use (B1-B7)	<ul style="list-style-type: none"> Product category: Other equipments : Passive products Use scenario : continuous operation (100% of the time) for 20 years at 60% of rated load of the time. This modelling duration does not constitute a minimum durability requirement Energy model: United States - 2018
	End of life (C1-C4)	The default end of life scenario modelled maximizes the environmental impact using the PCR hypothesis for "Local transport": 621 miles (1000 km) by heavy truck and landfilling.
Benefits & Loads (Module D)	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.	
Software and data-base used	EIME V6 and its CODDE-2024-04 database	

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ENVIRONMENTAL IMPACTS

Environmental Impact Indicators		Total Life Cycle Impacts		Manufacturing	Distribution	Installation	Use	End of Life	Benefits & Loads
				A1-A3	A4	A5	B1-B7	C1-C4	Module D
Climate change - total	GWP	1.28E+03	kg CO ₂ eq	9.57E+01	2.00E+00	2.15E+00	1.16E+03	1.40E+01	-3.10E+01
Climate change - fossil fuels	GWPf	1.27E+03	kg CO ₂ eq	9.52E+01	2.00E+00	4.46E-01	1.16E+03	1.38E+01	-3.02E+01
Climate change - biogenics	GWPb	3.93E+00	kg CO ₂ eq	4.23E-01	0.00E+00	1.70E+00	1.66E+00	1.40E-01	-8.71E-01
Climate change - land use and land use transformation	GWPlu	2.65E-04	kg CO ₂ eq	2.62E-04	0.00E+00	0.00E+00	0.00E+00	2.25E-06	0.00E+00
Ozone depletion	ODP	1.57E-05	kg CFC-11 eq	1.07E-05	3.07E-09	1.56E-08	4.62E-06	3.46E-07	-3.56E-06
Acidification	AP	6.16E+00	mole of H+ eq	7.91E-01	1.27E-02	2.65E-03	5.28E+00	6.92E-02	-2.86E-01
Eutrophication, freshwater	Epf	8.89E-03	kg P eq	2.58E-03	0*	0*	2.08E-03	4.23E-03	-8.72E-05
Eutrophication, marine aquatic	Epm	7.73E-01	kg of N eq	8.37E-02	5.95E-03	6.40E-04	6.70E-01	1.22E-02	-2.02E-02
Eutrophication, terrestrial	Ept	9.11E+00	mole of N eq	8.92E-01	6.53E-02	8.42E-03	7.99E+00	1.46E-01	-2.24E-01
Photochemical ozone formation	POCP	2.57E+00	kg NMVOC eq	2.95E-01	1.65E-02	1.81E-03	2.21E+00	4.33E-02	-8.44E-02
Abiotic resource depletion - elements	ADPe	2.03E-02	kg Sb eq	2.00E-02	0*	0*	1.55E-04	1.38E-04	-1.06E-03
Abiotic resource depletion - fossil fuels	ADPf	2.89E+04	MJ	2.16E+03	2.80E+01	8.26E+00	2.59E+04	8.36E+02	-1.39E+03
Water use	WU	9.94E+01	m ³ world eq	3.72E+01	0*	1.86E-02	5.44E+01	7.80E+00	-1.47E+01

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

The values of the indicators defined in the PCR-ed4-EN-2021 09 06 are available in the digital database of pep-ecopassport.org website.

The environmental impact of the Reference Product is most significant during the Use stage.

Product Environmental Profile

Starline Track Busway 4 Circuit Tap-Offs w/ Molded Case Circuit Breakers, NEMA receptacles (up to 120A)



ENVIRONMENTAL IMPACTS

Inventory Flow Indicators		Total Life Cycle Impacts		Manufacturing	Distribution	Installation	Use	End of Life	Benefits & Loads
				A1-A3	A4	A5	B1-B7	C1-C4	Module D
Use of renewable primary energy, excluding renewable primary energy resources used as raw materials	ERP	2.85E+03	MJ	3.99E+01	0*	6.25E-01	2.80E+03	5.63E+00	-1.78E+01
Use of renewable primary energy resources used as raw materials	ERM	2.79E+01	MJ	2.79E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.50E+00
Total use of renewable primary energy resources	ER	2.88E+03	MJ	6.78E+01	0*	6.25E-01	2.80E+03	5.63E+00	-1.53E+01
Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials	ENRP	2.88E+04	MJ	2.08E+03	2.80E+01	8.26E+00	2.59E+04	8.36E+02	-1.39E+03
Use of non-renewable primary energy resources used as raw materials	ENRM	8.46E+01	MJ	8.46E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-5.36E-01
Total use of non-renewable primary energy resources	ENR	2.89E+04	MJ	2.16E+03	2.80E+01	8.26E+00	2.59E+04	8.36E+02	-1.39E+03
Use of secondary materials	USM	1.39E-01	kg	1.39E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	URSF	0.00E+00	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	UNRSF	0.00E+00	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of fresh water	NUFW	2.32E+00	m ³	8.67E-01	0*	7.15E-04	1.27E+00	1.83E-01	-3.41E-01
Hazardous waste disposed	HWD	2.73E+02	kg	2.35E+02	0.00E+00	4.46E-01	2.52E+01	1.25E+01	-9.38E+01
Non-hazardous waste disposed	NHWD	2.60E+02	kg	8.60E+01	7.04E-02	6.42E-02	1.73E+02	8.53E-01	-3.65E+01
Radioactive waste disposed	RWD	9.79E-02	kg	5.60E-02	5.01E-05	2.65E-05	4.13E-02	4.82E-04	-2.91E-02
Components for re-use	CRU	0.00E+00	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	MRE	1.22E+01	kg	6.45E+00	0.00E+00	0.00E+00	0.00E+00	5.80E+00	0.00E+00
Materials for energy recovery	MER	0.00E+00	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy	EE	0.00E+00	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content of the product	BCpdt	0.00E+00	kg C						
Biogenic carbon content of the associated packaging	BCpkg	6.87E-01	kg C						

In accordance with the PCR, the "Benefits & Loads" are beyond the system boundary and are thus not included in the results of "Total Life Cycle Impacts".

The values of the indicators defined in the PCR-ed4-EN-2021 09 06 are available in the digital database of pep-ecopassport.org website.

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ENVIRONMENTAL IMPACTS

For products other than the Reference Product, the environmental impacts for the Use phase is correlated to the amperage of the circuit breakers and receptacles within the unit. The appropriate impacts* can be found by multiplying by the respective coefficients below:

*Full table of extrapolation rules available upon request (contact starlinesustainability@legrand.com)

DEVICE CODES	PHASE	LOAD RATE	AP	GWP	GWPB	GWPF	GWPLU	EPF	EPM	EPT	ODP	POCP	ADPF	ADPE	WU	
AF, AC, AH, EQ	USE (B6)	30%	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	
		40%	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	
		50%	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	
		60%	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	
		70%	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	
		80%	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	
AA (REFERENCE), EW, CX, EO		30%	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
		40%	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
		50%	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
		60%	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		70%	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36
		80%	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78

For all product variations, impacts for the manufacturing, distribution, and end of life phase impacts are approximately the same.

For all product variations, no specific materials or processes are needed for installation, so the impacts are related to packaging disposal; packaging mass is approximately constant for all variations. Therefore, the impacts in this phase are equivalent for all products.

Examples of using extrapolation coefficients:

- To calculate the Global Warming Potential for the Use Phase of UCT5C50S-25-4AABN at 30% rated load, take the value from the Environmental Impact Indicators table and multiply it by the coefficient for device code AA and rated load of 30%:

$$\text{New GWP (Use)} = 1.16\text{E}+03 * 0.25 = 290 \text{ KG CO}_2 \text{ EQ}$$

Product Environmental Profile

Starline Track Busway 2 Circuit Tap-Offs w/ Molded Case Circuit Breakers, NEMA receptacles (up to 60A)



ENVIRONMENTAL IMPACTS

Registration number: LGRP-02067-V01.01-EN	Drafting rules: "PEP-PCR-ed4-EN-2021 09 06" Supplemented by "PSR-0005-ed3.1-2023 12 08"	
Verifier accreditation number: VH44	Information and reference documents: www.pep-ecopassport.org	
Date of issue: 12-2024	Validity period: 5 years	
Independent verification of the declaration and data in compliance with ISO 14025:2006 Internal <input type="checkbox"/> External <input checked="" type="checkbox"/>		
The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDemain)		
PEP compliant with XP C08-100-1:2016 or EN 50693:2019 The content of this PEP cannot be compared with content from any other program.		
PEP compliant with ISO 14025:2006: "Environmental labels and declarations - Type III environmental declarations"		

LCA compliant with ISO 14040:2006: "Environmental management – LCA – Principles and framework"
LCA compliant with ISO 14044:2006: "Environmental management – LCA – Requirements and guidelines"
Environmental data in alignment with EN 15804:2012 + A2:2019: "Sustainability of construction works - EPD's - Core rules for the product category of construction products"