# **Product Environmental Profile**

## **Wiser Radiator Thermostat**





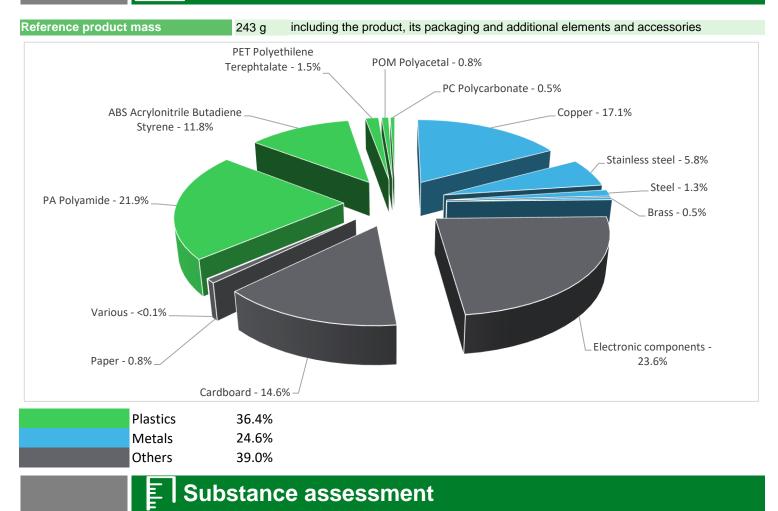




## General information

Representative product	Wiser Radiator Thermostat - CCTFR6100Z3
Description of the product	Radiator thermostat enable your Wiser system to enter a whole new level of smart. With a direct connection to the boiler they enable you to control the ON/OFF times and temperatures of individual rooms via the intuitive App.with a temperature step of 0,5°C; it controls a stepper motor to open or close the mechanical valve on the water heating radiator to control the targereted temperature. It is battery powered. The targered temperature is setup by a RF communication network with a home automate controller.
Functional unit	Control during 10 years the ambient temperature in a zone according to a temperature set by the user in a range of ambient temperature between 0° à 35°C, with a temperature step of 0,5°C.

## Constituent materials



Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 2 January 2013, amended in March 2015, 2015/863/EU and in November 2017, 2017/2102/EU) and do not contain, or only contain in the authorised proportions, lead, mercury, cadmium, hexavalent chromium or flame retardants (polybrominated biphenyls - PBB, polybrominated diphenyl ethers – PBDE), Bis (2-ethylhexyl)phthalate - DEHP, Benzyl butyl phthalate – BBP, Dibutyl phthalate - DBP, Disobutyl phthalate - DIBP) as mentioned in the Directive.

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website <a href="http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page">http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page</a>

# (1) Additional environmental information

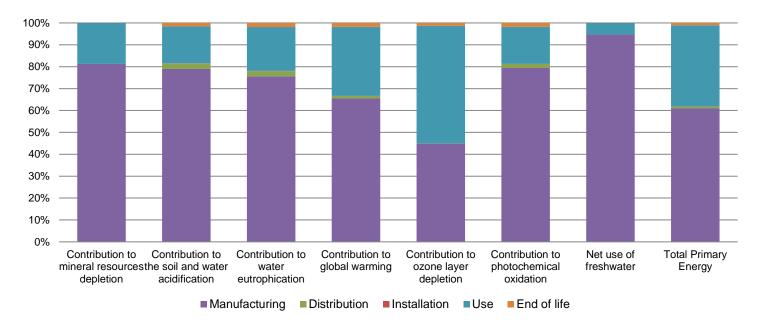
	The Wiser Radiator Thermostat presents the following relevent environmental aspects					
Manufacturing	Manufactured at a Schneider Electric production site ISO14001 certified					
	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 37 g, consisting of Cardboard (95%) Paper (5%)					
Distribution	Product distribution optimised by setting up local distribution centres					
Installation	Ref CCTFR6100Z3 does not require any installation operations. The disposal of the packaging materials is accounted for during the installation phase (including transport to disposal).					
Use	5 times 2 batteries, pack of 46.6g have to be changed every 2 years.					
	End of life optimized to decrease the amount of waste and allow recovery of the product components and materials					
	This product contains Electronic card (56g) and batteries (46.6g) that should be separated from the stream of waste so as to optimize end-of-life treatment.					
End of life The location of these components and other recommendations are given in the End of Life Instruction do is available on the Schneider-Electric Green Premium website						
	http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page					
	Recyclability potential:40%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).					

# **D** Environmental impacts

Reference life time	10 years						
Product category	Programmable thermostats						
Installation elements	Ref CCTFR6100Z3 does not require any installation operations. The disposal of the packaging materials is accounted for during the installation phase (including transport to disposal).						
Use scenario	Based on PSR0005 Thermostat scenario to evaluate the lifetime of the batteries. Active mode = 2.43W, 0.03% of RLT (Reference Life Time) [Electronic measurement consumption + Step motor consumption] StandBy mode = 0.0522W, 0.14% of RLT [only electronic measurement consumption] Sleep mode = 0.075mW The energy is given by a pack of 2 Akalyne batteries which are covered 2 years of the RLT						
Geographical representativeness	Europe						
Technological representativeness	Radiator thermostat enable your Wiser system to enter a whole new level of smart. With a direct connection to the boiler they enable you to control the ON/OFF times and temperatures of individual rooms via the intuitive App.with a temperature step of 0,5°C; it controls a stepper motor to open or close the mechanical valve on the water heating radiator to control the targereted temperature. It is battery powered. The targered temperature is setup by a RF communication network with a home automate controller.						
	Manufacturing	Installation	Use	End of life			
Energy model used	Energy model used: UK	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27	Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27			

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Compulsory indicators	Compulsory indicators Wiser Radiator Thermostat - CCTFR6100Z3						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	6.09E-04	4.96E-04	0*	0*	1.14E-04	0*
Contribution to the soil and water acidification	kg $SO_2$ eq	5.90E-03	4.66E-03	1.43E-04	8.33E-06	9.96E-04	9.35E-05
Contribution to water eutrophication	kg PO4 <sup>3-</sup> eq	1.41E-03	1.07E-03	3.30E-05	2.03E-06	2.83E-04	2.68E-05
Contribution to global warming	kg $CO_2$ eq	2.92E+00	1.92E+00	3.14E-02	2.00E-03	9.21E-01	5.37E-02
Contribution to ozone layer depletion	kg CFC11 eq	3.53E-07	1.58E-07	6.35E-11	0*	1.90E-07	4.48E-09
Contribution to photochemical oxidation	kg $C_2H_4$ eq	5.76E-04	4.58E-04	1.02E-05	6.23E-07	9.73E-05	1.04E-05
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m3	3.45E-01	3.26E-01	0*	0*	1.83E-02	6.87E-05
Total Primary Energy	MJ	4.77E+01	2.90E+01	4.43E-01	2.61E-02	1.77E+01	5.22E-01



Optional indicators		Wiser Radiator Thermostat - CCTFR6100Z3					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	3.12E+01	1.91E+01	4.40E-01	2.59E-02	1.13E+01	3.86E-01
Contribution to air pollution	m³	6.19E+02	3.18E+02	1.33E+00	7.98E-02	2.96E+02	4.66E+00
Contribution to water pollution	m³	1.59E+02	1.10E+02	5.16E+00	3.03E-01	3.97E+01	3.77E+00
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	3.77E-02	3.77E-02	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	5.40E-01	5.14E-01	5.91E-04	0*	2.55E-02	4.87E-04
Total use of non-renewable primary energy resources	MJ	4.71E+01	2.85E+01	4.43E-01	2.61E-02	1.76E+01	5.22E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	4.36E-01	4.09E-01	5.91E-04	0*	2.55E-02	4.87E-04
Use of renewable primary energy resources used as raw material	MJ	1.05E-01	1.05E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	4.32E+01	2.50E+01	4.43E-01	2.61E-02	1.72E+01	5.22E-01
Use of non renewable primary energy resources used as raw material	MJ	3.91E+00	3.51E+00	0*	0*	3.96E-01	0*
Use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*
Use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*

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Waste categories	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Hazardous waste disposed	kg	8.20E+00	7.75E+00	0*	0*	6.84E-02	3.84E-01
Non hazardous waste disposed	kg	1.08E+00	1.03E+00	1.11E-03	2.72E-04	3.80E-02	8.46E-03
Radioactive waste disposed	kg	4.94E-04	4.66E-04	7.93E-07	5.34E-08	2.36E-05	3.20E-06
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	1.33E-01	1.41E-02	0*	3.68E-02	0*	8.22E-02
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	6.74E-03	0*	0*	0*	0*	6.74E-03
Exported Energy	MJ	1.16E-04	1.04E-05	0*	1.06E-04	0*	0*

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

Life cycle assessment performed with EIME version EIME v5.8.1, database version 2016-11 in compliance with ISO14044.

The manufacturing phase is the life cycle phase which has the greatest impact on the majority of environmental indicators (based on compulsory indicators).

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.

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Independent verification of	the declaration and data, in compliar	nce with ISO 14025 : 2010		
Internal	External X			
The PCR review was cond	ucted by a panel of experts chaired b	y Philippe Osset (SOLINNEN)		
PEP are compliant with XP	° C08-100-1 :2016			PEP
The elements of the preser	nt PEP cannot be compared with elem	nents from another program.		D eco PASS
Document in compliance w declarations »	rith ISO 14025 : 2010 « Environmenta	al labels and declarations. Type III en	vironmental	PASS PORT.

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