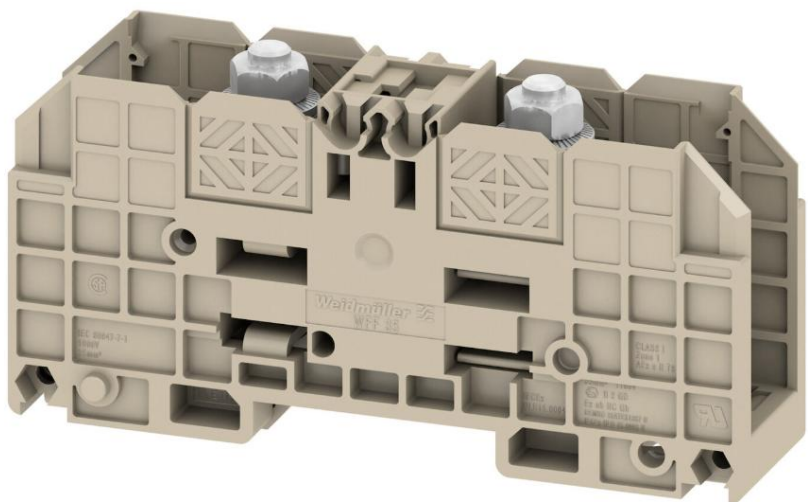


Feed-through Terminal Blocks WFF series

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
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Germany

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General data

Reference product 1028300000 WFF 35

Description of the product

The Weidmüller WFF series consists of feed-through terminal blocks with bolt connection technology for the connection and distribution of electrical power in industrial installations. Designed for conductors with cable lugs, the terminal blocks provide secure and reliable electrical connections for high-current applications. Mounted on DIN rails, they enable the routing and interconnection of conductors in control cabinets, switchgear assemblies, and power distribution systems.

Functional unit

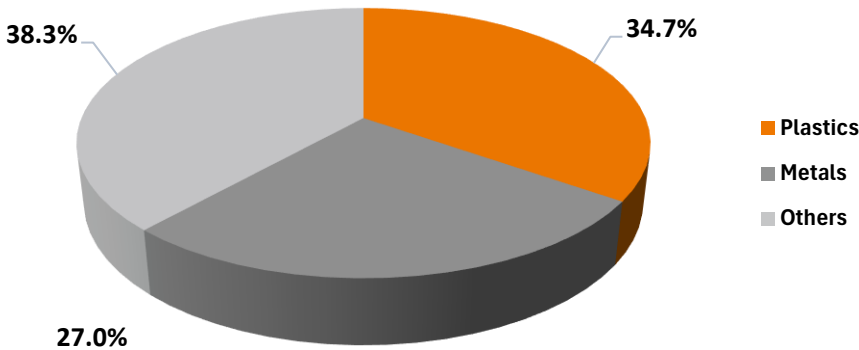
Connect 2 clamping units between 2 or more wires for a rated cross-section 35 mm², with rated voltage 1000 mV, rated current 12,5 A, and a voltage drop 0,48 mV, according to the appropriate use scenario, and for the reference service life of the product of 20 years.

Other products covered

1028380000	1028400000	1028480000	1028500000	1028580000
1028600000	1028680000	1028700000	1029300000	1029400000
1029500000	1029600000	1029700000	1049220000	1049230000
1049240000	1049250000	1857540000	1878650000	

Constituent Materials

The total weight of the reference product is 93 g (including packaging material). The constituent materials are distributed as follows:



Categorisation according to the material classes of IEC 62474:

Plastics			Metals			Other		
M-208	Polyamide (PA)	34,7 %	M-121	Copper and its alloys	13,8 %	M-341	Paper	38,3 %
			M-119	Other ferrous alloys, non-stainless steels	13,3 %			
Plastics in total		34,7 %	Metals in total		27 %	Others in total		38,3 %

The products are in compliance with RoHS (EU Directive 2011/65/EU).

According to the REACH Regulation 1907/2006, the ECHA publishes on its website which substances are to be classified as so-called substances of very high concern (SVHC). As soon as an article contains SVHC above the respective threshold values for the declaration obligation according to Article 33, the affected articles and the SVHC they contain are published in the online product catalogue at each product.

The online product catalogue site of the reference product can be accessed via the link:

<https://eshop.weidmueller.com/p/1028300000>

Additional Environmental Information

Manufacture	This stage includes the manufacturing of the product and its packaging as well as the transport to the manufacturer's last logistics platform located in Hörselbach-Hainich (Germany). The final assembly site is located in Romania. Transport packaging, used in addition to product packaging when required for delivery, is excluded from the system boundaries.
Distribution	The shipment is made from the distribution centre to the customer by truck. The transport route to the customer was assumed to be 3500 km by lorry. Transport was modelled using an ecoinvent dataset reflecting average European load rates. The load rate is not explicitly specified in the dataset.
Installation	Only the disposal of the packaging is considered in this phase, as the installation is carried out manually with non-electrical tools.
Use	No maintenance or utilities are required during use. The power consumption was calculated according to the use scenario below.
End of Life	The end-of-life stage is modelled based on the data from Eurostat. The transport route to the disposal company was assumed to be 1000 km by lorry.

Environmental Impacts

Reference Service Lifetime	20 years			
Product category	Electrical switchgear and control gear solutions			
Installation elements	No special installation elements required.			
Use scenario	During the use phase, the product dissipates some electricity due to power losses. The average power loss was calculated using the following assumptions according PSR: - RSL of 20 years; - Load rate: 30 % of the rated current - Use rate: 90 % RSL.			
Geographical representativeness	Europe			
Software	GreenDelta openLCA 2.6.1			
Database	ecoinvent 3.12, EN15804 add-on (ecoinvent 3.12), carbon minds plastics technology 2024			
Energy model	Manufacture*	Installation	Use	End of Life
	Romania	-	Europe	Europe

*Energy model of the final assembly site.

The following tables represent the impact values of the reference product according to DIN EN 15804:2022-03 except for the environmental indicators of output flows and information on the biogenic carbon content of the product and the associated packaging.

Environmental impact indicators

Indicator	Unit	Total*	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End of Life C1-C4	Benefits and Loads D
Climate change - total	kg CO ₂ eq.	4,35E+00	1,17E+00	8,83E-02	2,57E-02	2,98E+00	9,53E-02	-4,80E-01
Climate change - fossil	kg CO ₂ eq.	4,33E+00	1,17E+00	8,82E-02	2,50E-02	2,96E+00	9,46E-02	-4,79E-01
Climate change - biogenic	kg CO ₂ eq.	1,16E-02	4,21E-03	1,85E-05	5,00E-04	6,44E-03	4,80E-04	-6,90E-04
Climate change - land use and land use change	kg CO ₂ eq.	9,97E-03	1,19E-03	2,88E-05	2,30E-04	8,26E-03	2,60E-04	-3,10E-04
Ozone depletion	kg CFC 11 eq.	6,91E-08	1,75E-08	2,00E-09	9,27E-10	4,78E-08	9,32E-10	-2,31E-09
Acidification	mol H ⁺ eq.	3,22E-02	1,78E-02	1,80E-04	9,25E-05	1,40E-02	2,20E-04	-1,47E-02
Eutrophication - freshwater	kg P eq.	4,04E-04	1,00E-04	6,65E-07	6,10E-07	3,00E-04	2,35E-06	-7,21E-05
Eutrophication - marine aquatic	kg N eq.	3,78E-03	1,72E-03	4,56E-05	2,31E-05	1,94E-03	4,49E-05	-1,12E-03
Eutrophication - terrestrial	mol N- eq.	4,28E-02	1,96E-02	5,00E-04	2,40E-04	2,20E-02	4,60E-04	-1,18E-02
Photochemical ozone formation	kg NMVOC	1,30E-02	5,57E-03	3,10E-04	9,07E-05	6,86E-03	1,80E-04	-3,38E-03
Resource use, mineral and metals	kg Sb eq.	1,87E-04	1,80E-04	3,13E-07	2,03E-07	6,38E-06	3,93E-07	-1,70E-04
Resource use, fossils	MJ	8,43E+01	1,79E+01	1,25E+00	4,69E-01	6,39E+01	8,06E-01	-6,82E+00
Water use	m ³	2,50E+00	7,99E-01	6,55E-03	3,57E-02	1,65E+00	1,77E-02	-4,82E-01

Additional environmental impact indicators

Indicator	Unit	Total*	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End of Life C1-C4	Benefits and Loads D
Particulate matter	Disease incidences	1,48E-07	9,42E-08	6,57E-09	2,90E-09	4,23E-08	2,32E-09	-4,50E-08
Ionising radiation, human health	kBq U235 eq.	6,11E-01	4,79E-02	5,40E-04	3,52E-03	5,55E-01	3,96E-03	-7,13E-03
Ecotoxicity, freshwater	CTUe	2,53E+01	1,78E+01	1,86E-01	1,09E-01	7,00E+00	2,29E-01	-1,53E+01
Human toxicity, cancer	CTUh	2,23E-09	1,61E-09	1,39E-11	1,37E-11	4,83E-10	1,10E-10	-1,43E-09
Human toxicity, non-cancer	CTUh	1,72E-07	1,47E-07	7,63E-10	2,51E-10	2,25E-08	1,07E-09	-1,41E-07
Land Use	-	3,02E+01	1,92E+01	7,52E-01	4,24E-01	9,50E+00	3,44E-01	-4,34E+00

Resources use indicators

Indicator	Unit	Total*	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End of Life C1-C4	Benefits and Loads D
Use of renewable primary energy	MJ	1,92E+01	3,82E+00	2,07E-02	2,07E-01	1,50E+01	1,43E-01	-6,27E-01
Use of renewable primary energy as raw materials	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of renewable primary energy resources	MJ	1,92E+01	3,82E+00	2,07E-02	2,07E-01	1,50E+01	1,43E-01	-6,27E-01
Use of non-renewable primary energy	MJ	8,43E+01	1,79E+01	1,25E+00	4,69E-01	6,39E+01	8,06E-01	-6,82E+00
Use of non-renewable primary energy as raw materials	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of non-renewable primary energy resources	MJ	8,43E+01	1,79E+01	1,25E+00	4,69E-01	6,39E+01	8,06E-01	-6,82E+00
Input of secondary material	kg	9,64E-01	5,93E-02	1,08E-03	2,30E-04	9,00E-01	3,43E-03	-1,03E-02
Use of renewable secondary fuels	MJ	5,55E-01	2,55E-02	2,90E-04	8,25E-05	5,27E-01	1,93E-03	-1,73E-03
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
Use of net fresh water	m³	5,92E-02	1,98E-02	1,50E-04	8,30E-04	3,80E-02	4,10E-04	-1,27E-02

Waste category indicators

Indicator	Unit	Total*	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End of Life C1-C4	Benefits and Loads D
Hazardous waste disposed	kg	5,24E+00	4,87E+00	7,72E-03	6,11E-03	3,25E-01	3,33E-02	-4,78E+00
Non-hazardous waste disposed	kg	2,08E+01	6,33E+00	1,01E-01	6,21E-02	1,41E+01	1,73E-01	-4,21E+00
Radioactive waste disposed	kg	4,59E-04	3,14E-05	3,49E-07	6,21E-08	4,25E-04	1,75E-06	-4,32E-06
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 energy recovery	kg	9,50E-01	6,29E-02	1,12E-03	2,30E-04	8,81E-01	4,40E-03	-1,70E-02
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
Exported electrical energy	MJ	3,39E-01	1,39E-02	2,30E-04	4,30E-05	3,23E-01	1,36E-03	-7,60E-04
Exported thermal energy	MJ	1,71E-02	1,27E-02	3,00E-04	3,51E-05	3,76E-03	2,20E-04	-1,97E-03

*In accordance with the current Product Category Rules (PCR), the values presented in the 'Total' column do not include the benefits and loads beyond the system boundaries as represented in 'Module D'.

The following table represents the environmental impact indicators for products other than the reference product covered by this Environmental Product Declaration (EPD).

Product number	Life Cycle Phase	Climate change - total	Climate change - fossil	Climate change - biogenic	Climate change -land use and land use change	Ozone depletion	Acidification	Eutrophication - freshwater	Eutrophication - marine	Eutrophication - terrestrial	Photochemical ozone formation	Resource use, mineral and metals	Resource use, fossils	Water use
1028380000	Total*	4,37E+00	4,34E+00	1,17E-02	9,97E-03	6,92E-08	3,23E-02	4,04E-04	3,79E-03	4,29E-02	1,30E-02	1,87E-04	8,45E+01	2,51E+00
	Manufacturing	1,18E+00	1,17E+00	4,22E-03	1,19E-03	1,76E-08	1,78E-02	1,00E-04	1,73E-03	1,97E-02	5,60E-03	1,80E-04	1,81E+01	8,09E-01
	Distribution	8,86E-02	8,86E-02	1,86E-05	2,89E-05	2,00E-09	1,80E-04	6,68E-07	4,58E-05	5,00E-04	3,10E-04	3,14E-07	1,25E+00	6,58E-03
	Installation	2,59E-02	2,51E-02	5,00E-04	2,30E-04	9,32E-10	9,30E-05	6,12E-07	2,32E-05	2,40E-04	9,11E-05	2,04E-07	4,71E-01	3,59E-02
	Use	2,98E+00	2,96E+00	6,44E-03	8,26E-03	4,78E-08	1,40E-02	3,00E-04	1,94E-03	2,20E-02	6,86E-03	6,38E-06	6,39E+01	1,65E+00
	End of Life	9,58E-02	9,51E-02	4,80E-04	2,60E-04	9,37E-10	2,20E-04	2,36E-06	4,51E-05	4,60E-04	1,80E-04	3,96E-07	8,10E-01	1,79E-02
	Module D	-4,82E-01	-4,81E-01	-6,90E-04	-3,10E-04	-2,31E-09	-1,47E-02	-7,21E-05	-1,13E-03	-1,18E-02	-3,39E-03	-1,70E-04	6,86E+00	-4,84E-01
1028400000	Total*	6,57E+00	6,54E+00	1,53E-02	1,54E-02	9,72E-08	5,26E-02	6,64E-04	5,88E-03	6,25E-02	1,98E-02	3,22E-04	1,30E+02	4,01E+00
	Manufacturing	1,24E+00	1,24E+00	3,37E-03	8,60E-04	1,20E-08	2,80E-02	1,50E-04	2,44E-03	2,40E-02	7,11E-03	3,10E-04	1,90E+01	1,17E+00
	Distribution	1,05E-01	1,05E-01	2,21E-05	3,42E-05	2,37E-09	2,20E-04	7,92E-07	5,43E-05	6,00E-04	3,70E-04	3,72E-07	1,48E+00	7,80E-03
	Installation	4,24E-03	4,12E-03	8,27E-05	3,84E-05	1,53E-10	1,52E-05	1,00E-07	3,80E-06	3,89E-05	1,49E-05	3,35E-08	7,72E-02	5,89E-03
	Use	5,05E+00	5,02E+00	1,10E-02	1,40E-02	8,10E-08	2,40E-02	5,09E-04	3,30E-03	3,70E-02	1,20E-02	1,08E-05	1,08E+02	2,79E+00
	End of Life	1,72E-01	1,71E-01	8,70E-04	4,60E-04	1,69E-09	4,00E-04	4,20E-06	8,11E-05	8,30E-04	3,30E-04	7,05E-07	1,46E+00	3,18E-02
	Module D	-8,56E-01	-8,54E-01	-1,24E-03	-5,50E-04	-4,14E-09	-2,64E-02	-1,30E-04	-2,01E-03	-2,11E-02	-6,06E-03	-3,10E-04	1,22E+01	-8,60E-01
1028480000	Total*	6,56E+00	6,53E+00	1,53E-02	1,54E-02	9,71E-08	5,26E-02	6,64E-04	5,85E-03	6,24E-02	1,98E-02	3,22E-04	1,30E+02	4,00E+00
	Manufacturing	1,24E+00	1,23E+00	3,36E-03	8,50E-04	1,20E-08	2,80E-02	1,50E-04	2,42E-03	2,40E-02	7,09E-03	3,10E-04	1,90E+01	1,17E+00
	Distribution	1,04E-01	1,04E-01	2,18E-05	3,39E-05	2,35E-09	2,20E-04	7,84E-07	5,38E-05	5,90E-04	3,60E-04	3,68E-07	1,47E+00	7,73E-03
	Installation	4,24E-03	4,12E-03	8,27E-05	3,84E-05	1,53E-10	1,52E-05	1,00E-07	3,80E-06	3,89E-05	1,49E-05	3,35E-08	7,72E-02	5,89E-03
	Use	5,05E+00	5,02E+00	1,10E-02	1,40E-02	8,10E-08	2,40E-02	5,09E-04	3,30E-03	3,70E-02	1,20E-02	1,08E-05	1,08E+02	2,79E+00
	End of Life	1,70E-01	1,69E-01	8,60E-04	4,50E-04	1,67E-09	4,00E-04	4,14E-06	8,01E-05	8,20E-04	3,20E-04	6,95E-07	1,44E+00	3,13E-02
	Module D	-8,47E-01	-8,45E-01	-1,23E-03	-5,50E-04	-4,14E-09	-2,63E-02	-1,30E-04	-2,00E-03	-2,10E-02	-6,03E-03	-3,10E-04	1,20E+01	-8,49E-01
1028500000	Total*	9,61E+00	9,56E+00	2,74E-02	2,22E-02	1,48E-07	8,96E-02	9,84E-04	9,01E-03	1,06E-01	3,14E-02	6,36E-04	1,86E+02	5,65E+00
	Manufacturing	2,35E+00	2,34E+00	1,05E-02	2,33E-03	3,09E-08	5,56E-02	2,90E-04	4,33E-03	5,30E-02	1,42E-02	6,20E-04	3,47E+01	1,79E+00
	Distribution	1,87E-01	1,87E-01	3,92E-05	6,09E-05	4,22E-09	3,90E-04	1,41E-06	9,66E-05	1,06E-03	6,50E-04	6,62E-07	2,64E+00	1,39E-02
	Installation	3,03E-02	2,95E-02	5,90E-04	2,70E-04	1,09E-09	1,10E-04	7,18E-07	2,72E-05	2,80E-04	1,10E-04	2,39E-07	5,52E-01	4,21E-02
	Use	6,80E+00	6,77E+00	1,50E-02	1,90E-02	1,09E-07	3,30E-02	6,86E-04	4,45E-03	5,00E-02	1,60E-02	1,46E-05	1,46E+02	3,76E+00
	End of Life	2,39E-01	2,37E-01	1,26E-03	5,70E-04	2,34E-09	5,50E-04	5,34E-06	1,10E-04	1,14E-03	4,60E-04	9,10E-07	2,01E+00	4,10E-02

	Module D	1,28E+00	1,28E+00	-2,14E-03	-1,08E-03	-8,05E-09	-5,02E-02	-2,40E-04	-3,31E-03	-3,82E-02	-1,09E-02	-6,10E-04	1,77E+01	1,23E+00
1028580000	Total*	9,63E+00	9,58E+00	2,74E-02	2,22E-02	1,48E-07	8,97E-02	9,84E-04	9,03E-03	1,06E-01	3,14E-02	6,36E-04	1,86E+02	5,67E+00
	Manufacturing	2,37E+00	2,35E+00	1,05E-02	2,33E-03	3,10E-08	5,57E-02	2,90E-04	4,35E-03	5,32E-02	1,42E-02	6,20E-04	3,50E+01	1,81E+00
	Distribution	1,88E-01	1,88E-01	3,95E-05	6,13E-05	4,25E-09	3,90E-04	1,42E-06	9,72E-05	1,07E-03	6,60E-04	6,66E-07	2,65E+00	1,40E-02
	Installation	3,03E-02	2,95E-02	5,90E-04	2,70E-04	1,09E-09	1,10E-04	7,18E-07	2,72E-05	2,80E-04	1,10E-04	2,39E-07	5,52E-01	4,21E-02
	Use	6,80E+00	6,77E+00	1,50E-02	1,90E-02	1,09E-07	3,30E-02	6,86E-04	4,45E-03	5,00E-02	1,60E-02	1,46E-05	1,46E+02	3,76E+00
	End of Life	2,41E-01	2,39E-01	1,27E-03	5,80E-04	2,36E-09	5,60E-04	5,42E-06	1,10E-04	1,16E-03	4,70E-04	9,23E-07	2,03E+00	4,16E-02
	Module D	1,29E+00	1,29E+00	-2,15E-03	-1,08E-03	-8,05E-09	-5,02E-02	-2,40E-04	-3,32E-03	-3,83E-02	-1,09E-02	-6,10E-04	1,79E+01	1,24E+00
1028600000	Total*	1,60E+01	1,59E+01	4,23E-02	3,80E-02	2,42E-07	1,49E-01	1,70E-03	1,48E-02	1,70E-01	5,05E-02	1,07E-03	3,15E+02	9,54E+00
	Manufacturing	3,09E+00	3,08E+00	1,31E-02	2,88E-03	3,56E-08	8,89E-02	4,50E-04	6,50E-03	7,63E-02	2,10E-02	1,04E-03	4,57E+01	2,66E+00
	Distribution	2,41E-01	2,41E-01	5,06E-05	7,86E-05	5,45E-09	5,00E-04	1,82E-06	1,20E-04	1,37E-03	8,40E-04	8,53E-07	3,40E+00	1,79E-02
	Installation	1,53E-02	1,49E-02	3,00E-04	1,40E-04	5,52E-10	5,51E-05	3,63E-07	1,37E-05	1,40E-04	5,40E-05	1,21E-07	2,79E-01	2,13E-02
	Use	1,23E+01	1,22E+01	2,70E-02	3,40E-02	1,97E-07	5,90E-02	1,24E-03	8,01E-03	9,00E-02	2,80E-02	2,63E-05	2,63E+02	6,78E+00
	End of Life	3,57E-01	3,54E-01	1,86E-03	8,80E-04	3,49E-09	8,30E-04	8,18E-06	1,70E-04	1,71E-03	6,90E-04	1,39E-06	3,00E+00	6,25E-02
	Module D	2,00E+00	1,99E+00	-3,51E-03	-1,79E-03	-1,31E-08	-8,35E-02	-3,90E-04	-5,36E-03	-6,28E-02	-1,79E-02	-1,02E-03	2,78E+01	1,95E+00
1028680000	Total*	1,57E+01	1,57E+01	3,94E-02	3,78E-02	2,37E-07	1,48E-01	1,68E-03	1,46E-02	1,63E-01	4,98E-02	1,06E-03	3,13E+02	9,51E+00
	Manufacturing	3,10E+00	3,08E+00	1,02E-02	2,70E-03	3,62E-08	8,76E-02	4,40E-04	6,45E-03	7,09E-02	2,10E-02	1,03E-03	4,61E+01	2,65E+00
	Distribution	1,70E-04	1,70E-04	3,64E-08	5,65E-08	3,92E-12	3,59E-07	1,31E-09	8,96E-08	9,87E-07	6,06E-07	6,14E-10	2,45E-03	1,29E-05
	Installation	1,53E-02	1,49E-02	3,00E-04	1,40E-04	5,52E-10	5,51E-05	3,63E-07	1,37E-05	1,40E-04	5,40E-05	1,21E-07	2,79E-01	2,13E-02
	Use	1,23E+01	1,22E+01	2,70E-02	3,40E-02	1,97E-07	5,90E-02	1,24E-03	8,01E-03	9,00E-02	2,80E-02	2,63E-05	2,63E+02	6,78E+00
	End of Life	3,65E-01	3,63E-01	1,90E-03	9,10E-04	3,58E-09	8,50E-04	8,44E-06	1,70E-04	1,75E-03	7,00E-04	1,43E-06	3,08E+00	6,44E-02
	Module D	2,04E+00	2,03E+00	-3,53E-03	-1,79E-03	-1,31E-08	-8,36E-02	-3,90E-04	-5,42E-03	-6,30E-02	-1,80E-02	-1,02E-03	2,83E+01	1,99E+00
1028700000	Total*	2,62E+01	2,60E+01	7,22E-02	6,32E-02	4,02E-07	2,14E-01	2,69E-03	2,27E-02	2,65E-01	7,77E-02	1,32E-03	5,20E+02	1,49E+01
	Manufacturing	4,31E+00	4,28E+00	2,36E-02	3,90E-03	5,17E-08	1,11E-01	5,70E-04	8,19E-03	1,06E-01	2,72E-02	1,27E-03	6,07E+01	3,20E+00
	Distribution	4,00E-01	4,00E-01	8,40E-05	1,30E-04	9,05E-09	8,30E-04	3,02E-06	2,10E-04	2,28E-03	1,40E-03	1,42E-06	5,65E+00	2,97E-02
	Installation	1,91E-02	1,86E-02	3,70E-04	1,70E-04	6,88E-10	6,87E-05	4,52E-07	1,71E-05	1,80E-04	6,73E-05	1,51E-07	3,48E-01	2,65E-02
	Use	2,09E+01	2,08E+01	4,50E-02	5,80E-02	3,35E-07	1,01E-01	2,11E-03	1,40E-02	1,54E-01	4,80E-02	4,48E-05	4,48E+02	1,15E+01
	End of Life	5,38E-01	5,34E-01	3,09E-03	1,01E-03	5,28E-09	1,23E-03	9,82E-06	2,50E-04	2,54E-03	1,08E-03	1,74E-06	4,47E+00	7,81E-02
	Module D	2,60E+00	2,59E+00	-4,20E-03	-2,27E-03	-1,78E-08	-1,01E-01	-4,80E-04	-6,46E-03	-7,77E-02	-2,23E-02	-1,24E-03	3,44E+01	2,25E+00
1029300000	Total*	4,47E+00	4,45E+00	1,18E-02	1,01E-02	7,00E-08	3,31E-02	4,14E-04	3,92E-03	4,36E-02	1,33E-02	1,87E-04	8,61E+01	2,61E+00
	Manufacturing	1,27E+00	1,26E+00	4,31E-03	1,21E-03	1,81E-08	1,82E-02	1,10E-04	1,86E-03	2,04E-02	5,82E-03	1,80E-04	1,94E+01	9,03E-01
	Distribution	9,50E-02	9,50E-02	2,00E-05	3,10E-05	2,15E-09	2,00E-04	7,16E-07	4,91E-05	5,40E-04	3,30E-04	3,37E-07	1,34E+00	7,06E-03
	Installation	2,61E-02	2,54E-02	5,10E-04	2,40E-04	9,40E-10	9,38E-05	6,18E-07	2,34E-05	2,40E-04	9,19E-05	2,06E-07	4,75E-01	3,62E-02
	Use	2,98E+00	2,96E+00	6,44E-03	8,26E-03	4,78E-08	1,44E-02	3,00E-04	1,94E-03	2,19E-02	6,86E-03	6,38E-06	6,39E+01	1,64E+00
	End of Life	1,09E-01	1,09E-01	5,40E-04	3,10E-04	1,07E-09	2,60E-04	2,79E-06	5,17E-05	5,30E-04	2,10E-04	4,64E-07	9,28E-01	2,10E-02
	Module D	-5,40E-01	-5,39E-01	-7,40E-04	-3,10E-04	-2,31E-09	-1,50E-02	-7,46E-05	-1,22E-03	-1,23E-02	-3,53E-03	-1,70E-04	7,76E+00	-5,53E-01
1029400000	Total*	7,21E+00	7,18E+00	1,80E-02	1,60E-02	1,09E-07	5,55E-02	6,85E-04	6,46E-03	7,10E-02	2,17E-02	3,32E-04	1,40E+02	4,31E+00
	Manufacturing	1,83E+00	1,82E+00	5,78E-03	1,29E-03	2,24E-08	3,07E-02	1,70E-04	2,99E-03	3,22E-02	8,88E-03	3,20E-04	2,78E+01	1,45E+00

	Distribution	1,26E-01	1,26E-01	2,66E-05	4,12E-05	2,86E-09	2,60E-04	9,53E-07	6,54E-05	7,20E-04	4,40E-04	4,48E-07	1,78E+00	9,39E-03
	Installation	1,20E-02	1,17E-02	2,30E-04	1,10E-04	4,34E-10	4,33E-05	2,85E-07	1,08E-05	1,10E-04	4,24E-05	9,50E-08	2,19E-01	1,67E-02
	Use	5,05E+00	5,02E+00	1,10E-02	1,40E-02	8,10E-08	2,40E-02	5,09E-04	3,30E-03	3,70E-02	1,20E-02	1,08E-05	1,08E+02	2,79E+00
	End of Life	1,98E-01	1,96E-01	9,80E-04	5,40E-04	1,93E-09	4,60E-04	4,98E-06	9,32E-05	9,60E-04	3,70E-04	8,32E-07	1,67E+00	3,75E-02
	Module D	-9,62E-01	-9,60E-01	-1,32E-03	-5,50E-04	-4,14E-09	-2,68E-02	-1,30E-04	-2,19E-03	-2,19E-02	-6,32E-03	-3,10E-04	1,38E+01	-9,85E-01
1029500000	Total*	9,98E+00	9,93E+00	2,77E-02	2,24E-02	1,51E-07	8,94E-02	9,99E-04	9,45E-03	1,02E-01	3,20E-02	6,37E-04	1,92E+02	5,99E+00
	Manufacturing	2,65E+00	2,64E+00	1,09E-02	2,40E-03	3,27E-08	5,54E-02	3,00E-04	4,73E-03	4,88E-02	1,49E-02	6,20E-04	3,96E+01	2,12E+00
	Distribution	2,10E-01	2,10E-01	4,42E-05	6,86E-05	4,76E-09	4,40E-04	1,59E-06	1,10E-04	1,20E-03	7,40E-04	7,45E-07	2,97E+00	1,56E-02
	Installation	3,30E-02	3,21E-02	6,40E-04	3,00E-04	1,19E-09	1,20E-04	7,82E-07	2,96E-05	3,00E-04	1,20E-04	2,60E-07	6,01E-01	4,58E-02
	Use	6,80E+00	6,77E+00	1,47E-02	1,89E-02	1,09E-07	3,28E-02	6,90E-04	4,45E-03	5,01E-02	1,57E-02	1,46E-05	1,46E+02	3,76E+00
	End of Life	2,84E-01	2,82E-01	1,45E-03	7,30E-04	2,78E-09	6,60E-04	6,74E-06	1,30E-04	1,37E-03	5,40E-04	1,14E-06	2,40E+00	5,13E-02
	Module D	1,47E+00	1,47E+00	-2,29E-03	-1,08E-03	-8,06E-09	-5,10E-02	-2,50E-04	-3,62E-03	-3,98E-02	-1,14E-02	-6,10E-04	2,07E+01	1,45E+00
1029600000	Total*	1,68E+01	1,67E+01	4,47E-02	3,91E-02	2,52E-07	1,54E-01	1,73E-03	1,59E-02	1,81E-01	5,28E-02	1,07E-03	3,28E+02	1,02E+01
	Manufacturing	3,75E+00	3,73E+00	1,47E-02	3,46E-03	4,26E-08	9,28E-02	4,80E-04	7,45E-03	8,69E-02	2,28E-02	1,04E-03	5,63E+01	3,29E+00
	Distribution	3,01E-01	3,00E-01	6,31E-05	9,80E-05	6,80E-09	6,20E-04	2,27E-06	1,60E-04	1,71E-03	1,05E-03	1,06E-06	4,24E+00	2,23E-02
	Installation	3,82E-02	3,71E-02	7,40E-04	3,50E-04	1,38E-09	1,40E-04	9,05E-07	3,42E-05	3,50E-04	1,30E-04	3,01E-07	6,96E-01	5,30E-02
	Use	1,23E+01	1,22E+01	2,70E-02	3,40E-02	1,97E-07	5,90E-02	1,24E-03	8,01E-03	9,00E-02	2,80E-02	2,63E-05	2,63E+02	6,78E+00
	End of Life	4,34E-01	4,31E-01	2,19E-03	1,15E-03	4,25E-09	1,01E-03	1,06E-05	2,00E-04	2,09E-03	8,20E-04	1,78E-06	3,67E+00	8,01E-02
	Module D	2,33E+00	2,32E+00	-3,76E-03	-1,79E-03	-1,31E-08	-8,49E-02	-4,00E-04	-5,89E-03	-6,54E-02	-1,87E-02	-1,02E-03	3,29E+01	2,33E+00
1029700000	Total*	2,69E+01	2,68E+01	7,45E-02	6,42E-02	4,11E-07	2,17E-01	2,72E-03	2,37E-02	2,71E-01	7,99E-02	1,33E-03	5,32E+02	1,55E+01
	Manufacturing	4,95E+00	4,92E+00	2,53E-02	4,44E-03	5,83E-08	1,14E-01	6,00E-04	9,09E-03	1,11E-01	2,90E-02	1,28E-03	7,11E+01	3,82E+00
	Distribution	4,60E-01	4,59E-01	9,65E-05	1,50E-04	1,04E-08	9,50E-04	3,47E-06	2,40E-04	2,62E-03	1,61E-03	1,63E-06	6,49E+00	3,41E-02
	Installation	3,82E-02	3,71E-02	7,40E-04	3,50E-04	1,38E-09	1,40E-04	9,05E-07	3,42E-05	3,50E-04	1,30E-04	3,01E-07	6,96E-01	5,30E-02
	Use	2,09E+01	2,08E+01	4,50E-02	5,80E-02	3,35E-07	1,01E-01	2,11E-03	1,40E-02	1,54E-01	4,80E-02	4,48E-05	4,48E+02	1,15E+01
	End of Life	6,16E-01	6,11E-01	3,42E-03	1,28E-03	6,03E-09	1,42E-03	1,22E-05	2,90E-04	2,92E-03	1,22E-03	2,13E-06	5,13E+00	9,57E-02
	Module D	2,92E+00	2,92E+00	-4,46E-03	-2,27E-03	-1,78E-08	-1,03E-01	-5,00E-04	-7,00E-03	-8,03E-02	-2,31E-02	-1,24E-03	3,95E+01	2,64E+00
1049220000	Total*	4,58E+00	4,55E+00	1,21E-02	1,01E-02	7,09E-08	3,37E-02	4,24E-04	4,01E-03	4,45E-02	1,36E-02	1,87E-04	8,78E+01	2,69E+00
	Manufacturing	1,36E+00	1,35E+00	4,45E-03	1,28E-03	1,88E-08	1,88E-02	1,20E-04	1,94E-03	2,12E-02	6,08E-03	1,80E-04	2,11E+01	9,80E-01
	Distribution	9,98E-02	9,97E-02	2,10E-05	3,25E-05	2,26E-09	2,10E-04	7,52E-07	5,16E-05	5,70E-04	3,50E-04	3,53E-07	1,41E+00	7,41E-03
	Installation	2,83E-02	2,74E-02	5,80E-04	2,40E-04	9,50E-10	9,62E-05	6,42E-07	2,43E-05	2,50E-04	9,41E-05	2,10E-07	4,84E-01	3,64E-02
	Use	2,98E+00	2,96E+00	6,44E-03	8,26E-03	4,78E-08	1,44E-02	3,00E-04	1,94E-03	2,19E-02	6,86E-03	6,38E-06	6,39E+01	1,64E+00
	End of Life	1,14E-01	1,13E-01	5,70E-04	3,10E-04	1,11E-09	2,70E-04	2,82E-06	5,37E-05	5,50E-04	2,10E-04	4,72E-07	9,64E-01	2,13E-02
	Module D	-5,87E-01	-5,85E-01	-8,30E-04	-3,70E-04	-2,71E-09	-1,53E-02	-7,87E-05	-1,27E-03	-1,28E-02	-3,69E-03	-1,70E-04	8,33E+00	-5,74E-01
1049230000	Total*	7,53E+00	7,49E+00	1,99E-02	1,67E-02	1,14E-07	5,74E-02	7,17E-04	6,74E-03	7,41E-02	2,24E-02	3,32E-04	1,45E+02	4,49E+00
	Manufacturing	2,08E+00	2,07E+00	7,20E-03	1,84E-03	2,65E-08	3,21E-02	2,00E-04	3,23E-03	3,47E-02	9,71E-03	3,20E-04	3,19E+01	1,60E+00
	Distribution	1,62E-01	1,62E-01	3,41E-05	5,29E-05	3,67E-09	3,40E-04	1,22E-06	8,39E-05	9,20E-04	5,70E-04	5,75E-07	2,29E+00	1,21E-02
	Installation	3,25E-02	3,15E-02	6,60E-04	2,80E-04	1,10E-09	1,10E-04	7,43E-07	2,81E-05	2,80E-04	1,10E-04	2,43E-07	5,61E-01	4,23E-02
	Use	5,05E+00	5,02E+00	1,09E-02	1,40E-02	8,10E-08	2,44E-02	5,10E-04	3,30E-03	3,72E-02	1,16E-02	1,08E-05	1,08E+02	2,79E+00

1049240000	End of Life	2,10E-01	2,08E-01	1,06E-03	5,50E-04	2,05E-09	4,90E-04	5,08E-06	9,87E-05	1,01E-03	4,00E-04	8,54E-07	1,77E+00	3,85E-02
	Module D	1,06E+00	1,06E+00	-1,49E-03	-6,60E-04	-4,93E-09	-2,74E-02	-1,40E-04	-2,28E-03	-2,30E-02	-6,64E-03	-3,10E-04	1,50E+01	1,03E+00
	Total*	1,03E+01	1,03E+01	2,88E-02	2,27E-02	1,54E-07	9,25E-02	1,03E-03	9,77E-03	1,12E-01	3,31E-02	6,47E-04	1,96E+02	6,14E+00
	Manufacturing	2,93E+00	2,92E+00	1,16E-02	2,63E-03	3,51E-08	5,83E-02	3,30E-04	5,01E-03	5,81E-02	1,58E-02	6,30E-04	4,33E+01	2,26E+00
	Distribution	2,50E-01	2,50E-01	5,26E-05	8,16E-05	5,66E-09	5,20E-04	1,89E-06	1,30E-04	1,43E-03	8,80E-04	8,87E-07	3,53E+00	1,86E-02
	Installation	3,52E-02	3,41E-02	7,20E-04	3,00E-04	1,20E-09	1,20E-04	8,06E-07	3,05E-05	3,10E-04	1,20E-04	2,65E-07	6,09E-01	4,60E-02
	Use	6,80E+00	6,77E+00	1,47E-02	1,89E-02	1,09E-07	3,28E-02	6,90E-04	4,45E-03	5,01E-02	1,57E-02	1,46E-05	1,46E+02	3,76E+00
	End of Life	3,27E-01	3,24E-01	1,75E-03	7,50E-04	3,20E-09	7,50E-04	7,04E-06	1,50E-04	1,56E-03	6,40E-04	1,21E-06	2,74E+00	5,43E-02
1049250000	Module D	1,66E+00	1,65E+00	-2,51E-03	-1,25E-03	-9,48E-09	-5,19E-02	-2,60E-04	-3,78E-03	-4,17E-02	-1,20E-02	-6,10E-04	2,28E+01	1,52E+00
	Total*	1,75E+01	1,74E+01	4,70E-02	3,97E-02	2,59E-07	1,56E-01	1,78E-03	1,64E-02	1,83E-01	5,51E-02	1,08E-03	3,37E+02	1,05E+01
	Manufacturing	4,34E+00	4,32E+00	1,63E-02	3,99E-03	4,74E-08	9,51E-02	5,30E-04	7,95E-03	8,78E-02	2,47E-02	1,05E-03	6,40E+01	3,57E+00
	Distribution	3,72E-01	3,72E-01	7,81E-05	1,20E-04	8,40E-09	7,70E-04	2,80E-06	1,90E-04	2,12E-03	1,30E-03	1,32E-06	5,25E+00	2,76E-02
	Installation	4,14E-02	4,02E-02	8,50E-04	3,50E-04	1,39E-09	1,40E-04	9,41E-07	3,57E-05	3,60E-04	1,40E-04	3,08E-07	7,08E-01	5,33E-02
	Use	1,23E+01	1,22E+01	2,70E-02	3,40E-02	1,97E-07	5,90E-02	1,24E-03	8,01E-03	9,00E-02	2,80E-02	2,63E-05	2,63E+02	6,78E+00
	End of Life	5,12E-01	5,08E-01	2,73E-03	1,19E-03	5,02E-09	1,19E-03	1,12E-05	2,40E-04	2,45E-03	9,90E-04	1,92E-06	4,30E+00	8,63E-02
	Module D	2,84E+00	2,83E+00	-4,57E-03	-2,34E-03	-1,72E-08	-8,79E-02	-4,50E-04	-6,39E-03	-7,09E-02	-2,04E-02	-1,03E-03	3,89E+01	2,55E+00
1857540000	Total*	1,05E+01	1,05E+01	3,42E-02	2,28E-02	1,59E-07	9,23E-02	1,02E-03	9,89E-03	1,12E-01	3,35E-02	6,37E-04	1,98E+02	6,14E+00
	Manufacturing	3,08E+00	3,06E+00	1,69E-02	2,71E-03	3,89E-08	5,80E-02	3,20E-04	5,11E-03	5,81E-02	1,61E-02	6,20E-04	4,49E+01	2,26E+00
	Distribution	2,69E-01	2,69E-01	5,66E-05	8,79E-05	6,09E-09	5,60E-04	2,03E-06	1,40E-04	1,53E-03	9,40E-04	9,54E-07	3,80E+00	2,00E-02
	Installation	3,30E-02	3,21E-02	6,40E-04	3,00E-04	1,19E-09	1,20E-04	7,82E-07	2,96E-05	3,00E-04	1,20E-04	2,60E-07	6,01E-01	4,58E-02
	Use	6,80E+00	6,77E+00	1,47E-02	1,89E-02	1,09E-07	3,28E-02	6,90E-04	4,45E-03	5,01E-02	1,57E-02	1,46E-05	1,46E+02	3,76E+00
	End of Life	3,50E-01	3,47E-01	1,91E-03	7,70E-04	3,43E-09	8,10E-04	7,28E-06	1,60E-04	1,67E-03	6,90E-04	1,26E-06	2,92E+00	5,65E-02
	Module D	1,63E+00	1,63E+00	-2,33E-03	-1,13E-03	-8,97E-09	-5,15E-02	-2,50E-04	-3,74E-03	-4,12E-02	-1,19E-02	-6,10E-04	2,23E+01	1,50E+00
	Total*	2,70E+01	2,69E+01	7,49E-02	6,42E-02	4,14E-07	2,17E-01	2,73E-03	2,34E-02	2,72E-01	8,04E-02	1,33E-03	5,33E+02	1,56E+01
1878650000	Manufacturing	5,05E+00	5,02E+00	2,55E-02	4,47E-03	6,05E-08	1,14E-01	6,00E-04	9,14E-03	1,12E-01	2,93E-02	1,28E-03	7,25E+01	3,83E+00
	Distribution	4,60E-01	4,59E-01	9,65E-05	1,50E-04	1,04E-08	9,50E-04	3,46E-06	2,40E-04	2,62E-03	1,61E-03	1,63E-06	6,49E+00	3,41E-02
	Installation	3,79E-02	3,68E-02	7,40E-04	3,40E-04	1,37E-09	1,40E-04	8,98E-07	3,40E-05	3,50E-04	1,30E-04	2,99E-07	6,91E-01	5,26E-02
	Use	2,09E+01	2,08E+01	4,52E-02	5,80E-02	3,35E-07	1,01E-01	2,11E-03	1,37E-02	1,54E-01	4,82E-02	4,48E-05	4,48E+02	1,15E+01
	End of Life	6,16E-01	6,12E-01	3,42E-03	1,28E-03	6,04E-09	1,42E-03	1,22E-05	2,90E-04	2,93E-03	1,22E-03	2,13E-06	5,14E+00	9,59E-02
	Module D	2,92E+00	2,92E+00	-4,46E-03	-2,27E-03	-1,78E-08	-1,03E-01	-5,00E-04	-7,01E-03	-8,03E-02	-2,31E-02	-1,24E-03	3,96E+01	2,64E+00

Please obtain the units from the table of the reference article.

*In accordance with the current Product Category Rules (PCR), the values presented in the 'Total' column do not include the benefits and loads beyond the system boundaries as represented in 'Module D'.

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» Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »