ENVIRONMENTAL PRODUCT DECLARATION (EPD)

CommScope Fiber Drop Cable Assembly MHD products

At CommScope, we believe that corporate responsibility and sustainability means making decisions that have a positive impact on our people, planet and bottom line.

CommScope's leaders have adopted a philosophy on corporate responsibility that embraces our core company values and holds us accountable to produce smart solutions that respect our people and our planet:

Meaningful integrity is a decisive personal and company-wide commitment to enable faster, smarter and more sustainable solutions while demonstrating the utmost respect for our human and natural resources.

This philosophy finds form in three pillars:

- Environmental

- Social

- Governance

Our commitment enables us to invest wisely in our future. By utilizing innovative technology, intelligent engineering and energy-efficient designs, we're building sustainable networks that make our customers more agile while also preserving the natural ecosystems from which we source our raw materials.

ASTM INTERNATIONAL

This declaration is an environmental product declaration (EPD) in accordance with ISO 14025, EN 15804 + A2. EPDs rely on Life Cycle Assessment (LCA) to provide information on a number of environmental impacts of products over their life cycle. Exclusions: EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc. Accuracy of Results: EPDs regularly rely on estimations of impacts, and the level of accuracy in estimation of effect differs for any particular product line and reported impact. Comparability: EPDs are not comparative assertions and are either not comparable or have limited comparability when they cover different life cycle stages, are based on different product category rules or are missing relevant environmental impacts. EPDs from different programs may not be comparable.

EPD PROGRAM AND PROGRAM OPERATOR NAME, ADDRESS, LOGO, AND WEBSITE	ASTM International, 100 barr harbor drive west conshohocken, PA 19428
GENERAL PROGRAM INSTRUCTIONS AND VERSION NUMBER	General Program Instructions. Version 8.0. April 29, 2020
MANUFACTURER NAME AND ADDRESS	CommScope, Inc. 3642 E US Highway 70, Claremont, North Carolina 28610
DECLARATION NUMBER	EPD xxx
DECLARED PRODUCT & FUNCTIONAL UNIT OR DECLARED UNIT	CommScope® Fiber Drop Cable Assembly MHD products Functional Unit: one piece of MHD product provides a connection between the main fiber network and the end user's premises, with a service life of 25 years, including end-of-life disposition.
REFERENCE PCR AND VERSION NUMBER	PEP ecopassport Program: Part A PCR for Electrical, Electronic and HVAC-R Products and Part B PSR Specific Rules for Wire Cables and Accessories
DESCRIPTION OF PRODUCT APPLICATION/USE	CommScope's FDCA-MHD products are pre-connectorized fiber optic cables designed to connect the main fiber network to the end user's premises. It is a critical component in FTTH (Fiber-to-the-Home) and FTTX (Fiber-to-the-X) deployments.
PRODUCT RSL DESCRIPTION (IF APPL.)	25 Years
MARKETS OF APPLICABILITY	Global
DATE OF ISSUE	Feb xx, 2026
PERIOD OF VALIDITY	5 Years
EPD TYPE	Product Specific
RANGE OF DATASET VARIABILITY	N/A
EPD SCOPE	Cradle-to-Grave
YEAR(S) OF REPORTED PRIMARY DATA	2024
LCA SOFTWARE DATABASE(S) & VERSION NUMBER	SimaPro 10.2.0.0 & Ecoinvent 3.11
LCIA METHODOLOGY & VERSION NUMBER	CML- IA Baseline 3.11, TRACI 2.2 and EN15804+A2 (adapted) 1.03

The sub-category PCR review was conducted by:	
This declaration was independently verified in accordance with ISO 14025: 2006. The "PEP ecopassport Program PCR for electrical, electronic and HVAC-R products", v4.0, 2021 based on EN 15804:2012 + A2:2019, serves as the core PCR. ☐ INTERNAL ☒EXTERNAL	Timothy S Brooke ASTM International
This life cycle assessment was conducted in accordance with ISO 14044 and the reference PCR by:	
This life cycle assessment was independently verified in accordance with ISO 14044 and reference PCR by:	Thomas P. Gloria, Ph. D. Industrial Ecology Consultants

Environmental declarations from different programs (ISO 14025) may not be comparable. Comparison of the environmental performance using EPD information shall consider all relevant information modules over the full life cycle of the products within the building. This PCR allows EPD comparability only when the same functional requirements between products are ensured and the requirements of EN 15804:2012+A2:2019 are met. It should be noted that different LCA software and background LCI datasets may lead to differences results for upstream or downstream of the life cycle stages declared.

General Information

Description of Company/Organization

CommScope (NASDAQ: COMM) helps design, build and manage wired and wireless networks around the world. Corporate responsibility and sustainability drive us to make decisions that benefit people, society, the planet and our bottom line. We enable faster, smarter and more sustainable solutions while respecting human and natural resources. Innovative technology, intelligent engineering and energy-efficient design help us meet our goals. CommScope builds sustainable networks that make our customers more agile, simultaneously helping to preserve the natural ecosystems from which we source components and materials.

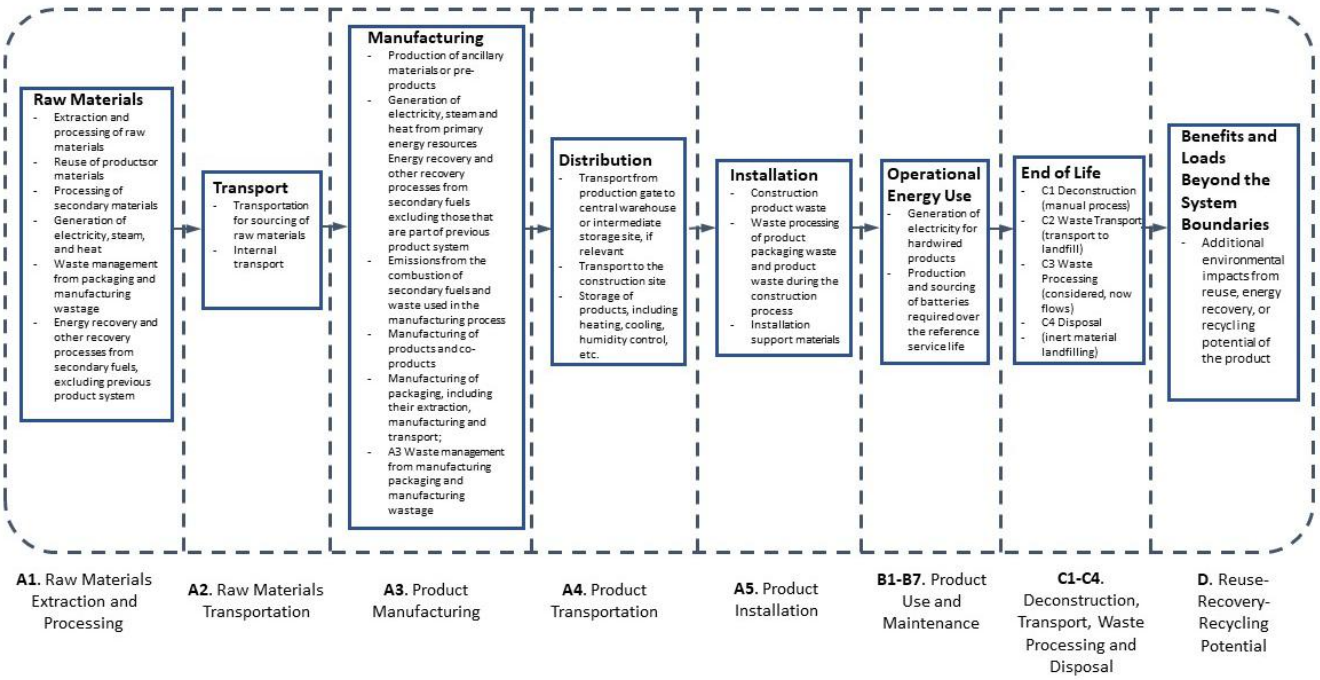
Product Description

CommScope's Fiber Drop Cable Assembly (Fiber Optic Feeder Cable Assembly with hardened multi-fiber optic connectors (HMFOC) FDCA-MHD products are pre-connectorized fiber optic cables designed to connect the main fiber network to the end user's premises. It is a critical component in FTTH (Fiber-to-the-Home) and FTTX (Fiber-to-the-X) deployments.

This EPD covers FDCA-MHD product types:

- MHD-F0DA; MHD-FFDA
- MHD-F0DH; MHD-FFDH
- MHD-M0DA; MHD-MMDA
- MHD-M0DH; MHD-MMDH
- MHD-MFDA; MHD-FMDH

Flow Diagram



Manufacturer Specific EPD

This product-specific EPD was developed based on the cradle-to-grave (modules A1-C4) Life Cycle Assessment. The EPD accounts for raw material extraction and processing, transport, product manufacturing, distribution, installation, disposal, and potential benefits and loads following the end-of-life disposal. The products were analyzed by 3 parts: one meter of cable, one piece of connector kit and one piece of packaging, respectively. The total environmental impact results were sum up with the results from 3 parts together, by using the formular given in **LCA sum results calculation guidance** (page 24).

Application

The FDCA-MHD products are pre-connectorized fiber optic cables designed to connect the main fiber network to the end user's premises.

Material Composition

The primary product components and/or materials must be indicated as a percentage mass to enable the user of the EPD to understand the composition of the product in delivery status.

The compositions of the FDCA-MHD products are given by one meter of cable and one piece of connector kit separately as follows:

Cables	Total weight (g/m)	MDPE	Glass reinforced plastic rod	PBT	Optic Fiber	Gel	Copper clad steel wire
Cable A	35.5	54.50%	23.84%	14.95%	2.37%	4.35%	0.00%
Cable H	38.5	53.87%	21.94%	13.76%	2.18%	4.00%	4.25%

Connectors	Total weight (g)	PEI resin	PE Heatshrinks	PBT resin	Stainless steel	Thermoplastic vulcanizate	Epoxy	Others
F connector	28.9	29.94%	33.23%	10.05%	5.21%	17.25%	3.46%	0.85%
M connector	30.9	30.18%	32.57%	8.80%	8.10%	16.11%	3.24%	0.99%

Technical Details

For the declared product, the following technical data in the delivery status must be provided with reference to the test standard:

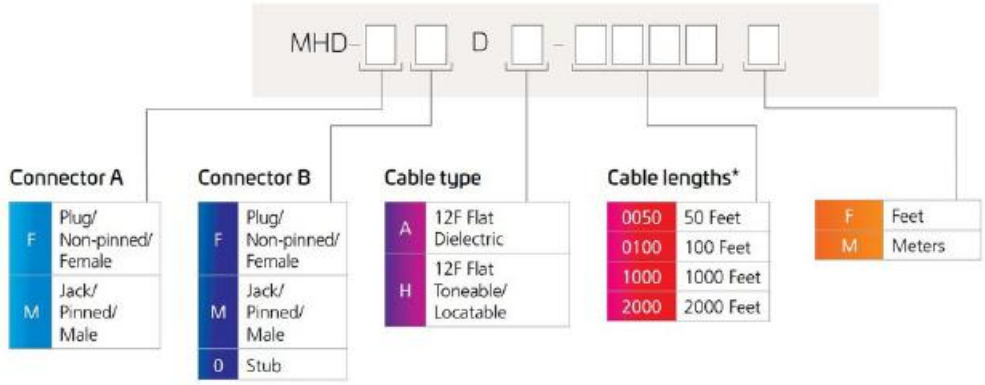
Product Classification

Regional Availability	Asia | Latin America | North America
Product Type	Fiber drop cable assembly
Product Series	MHD

General Specifications

Jacket Color	Black

Ordering Tree



* Cable Length shown as an example, additional cable lengths available upon request up to 2,000 ft. (600 m).

Mechanical Specifications

Minimum Bend Radius, loaded	86 mm | 3.386 in
Minimum Bend Radius, unloaded	81 mm | 3.189 in
Tensile Load, long term, maximum	400 N | 89.924 lbf
Tensile Load, short term, maximum	1334 N | 299.895 lbf

Optical Specifications

Fiber Mode	Singlemode
Fiber Type	G.657.A2, TeraSPEED®

Environmental Specifications

Installation temperature	-30 °C to +70 °C (-22 °F to +158 °F)
Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Storage Temperature	-40 °C to +75 °C (-40 °F to +167 °F)
Environmental Space	Outdoor, buried
Jacket UV Resistance	UV stabilized

Regulatory Compliance/Certifications

Agency	**Classification**
CHINA-ROHS	Below maximum concentration value
ROHS	Compliant
UK-ROHS	Compliant

Methodological Framework

Functional Unit

The declaration refers to the functional unit of one piece of FDCA-MHD product.

Name	Value	Unit
Function Unit	1	Assembled piece

System Boundary

This is a cradle to grave Environmental Product Declaration. The following life cycle phases were considered:

Life Cycle Stage	Life Cycle Module	Module	X = Included/ MND = Module Not Declared
Product Stage	Raw Material Supply & Parts manufacturing	A1	X
	Transport	A2	X
	Assembly process	A3	X
Construction Process Stage	Transport from gate to the site	A4	X
	Installation process	A5	X
Use Stage	Use	B1**	X
	Maintenance	B2**	X
	Repair	B3**	X
	Replacement	B4**	X
	Refurbishment	B5**	X
	Operational energy use	B6**	X
	Operational water use	B7**	X
End of Life Stage*	Deconstruction/ demolition	C1**	X
	Transport	C2	X
	Waste processing	C3	X
	Disposal	C4	X
Benefits and Loads Beyond the System Boundaries	Reuse-Recovery-Recycling potential	D	X

*This includes provision of all materials, products and energy, packaging processing and its transport, as well as waste processing up to the end-of waste state or disposal of final residues.

**There is no activity in these stages, their declared value is “0”.

Reference Service Life

The reference service life of the Dome and Base enclosure is 25 years.

Allocation

Allocation was determined on a per piece basis for the system.

Cut-off Criteria

Processes whose total contribution to the final result, with respect to their mass and in relation to all considered impact categories, is less than 1% can be neglected. The sum of the neglected processes may not exceed 5% by mass of the considered impact categories. For this, a documented assumption is permissible.

For Hazardous Substances the following requirements apply:

- The Life Cycle Inventory (LCI) of hazardous substances will be included, if the inventory is available.
- If the LCI for a hazardous substance is not available, the substance will appear as an input in the LCI of the product, if its mass represents more than 0.1% of the product composition.
- If the LCI of a hazardous substance is approximated by modeling another substance, documentation will be provided.

This EPD is in compliance with the cut-off criteria. No processes were neglected or excluded. Capital items for the production processes (machine, buildings, etc.) were not taken into consideration.

Data Sources

Primary data were collected for every process in the product system under the control of CommScope. Secondary data from the Ecoinvent 3.11 database were utilized when necessary. These data were evaluated and have temporal, geographic, and technical coverage appropriate to the scope of the product category.

Data Quality

The data sources used are complete and representative of global systems in terms of geographic and technological coverage and are a recent vintage (i.e. less than ten years old). Primary data are based on direct information from CommScope manufacturing site. Secondary data sets were used for raw materials extraction and processing, end of life, transportation, and energy production flows. Wherever secondary data is used, the study adopts critically reviewed data for consistency, precision, and reproducibility to limit uncertainty.

Period Under Review

The period under review is the full calendar year of 2024.

Treatment of Biogenic Carbon

The uptake and release of biogenic carbon throughout the product life cycle follows EN15804+A2 Section 6.4.4.

Comparability and Benchmarking

A comparison or an evaluation of EPD data is only possible if all data sets to be compared were created according to EN 15804 + A2 and the building context, respectively the product-specific characteristics of performance, are taken into account. Environmental declarations from different programs may not be comparable. Full conformance with the PCR allows for EPD comparability only when all stages of a product's life cycle have been considered. However, variations and deviations are possible.

Units

The LCA results within this EPD are reported in SI units.

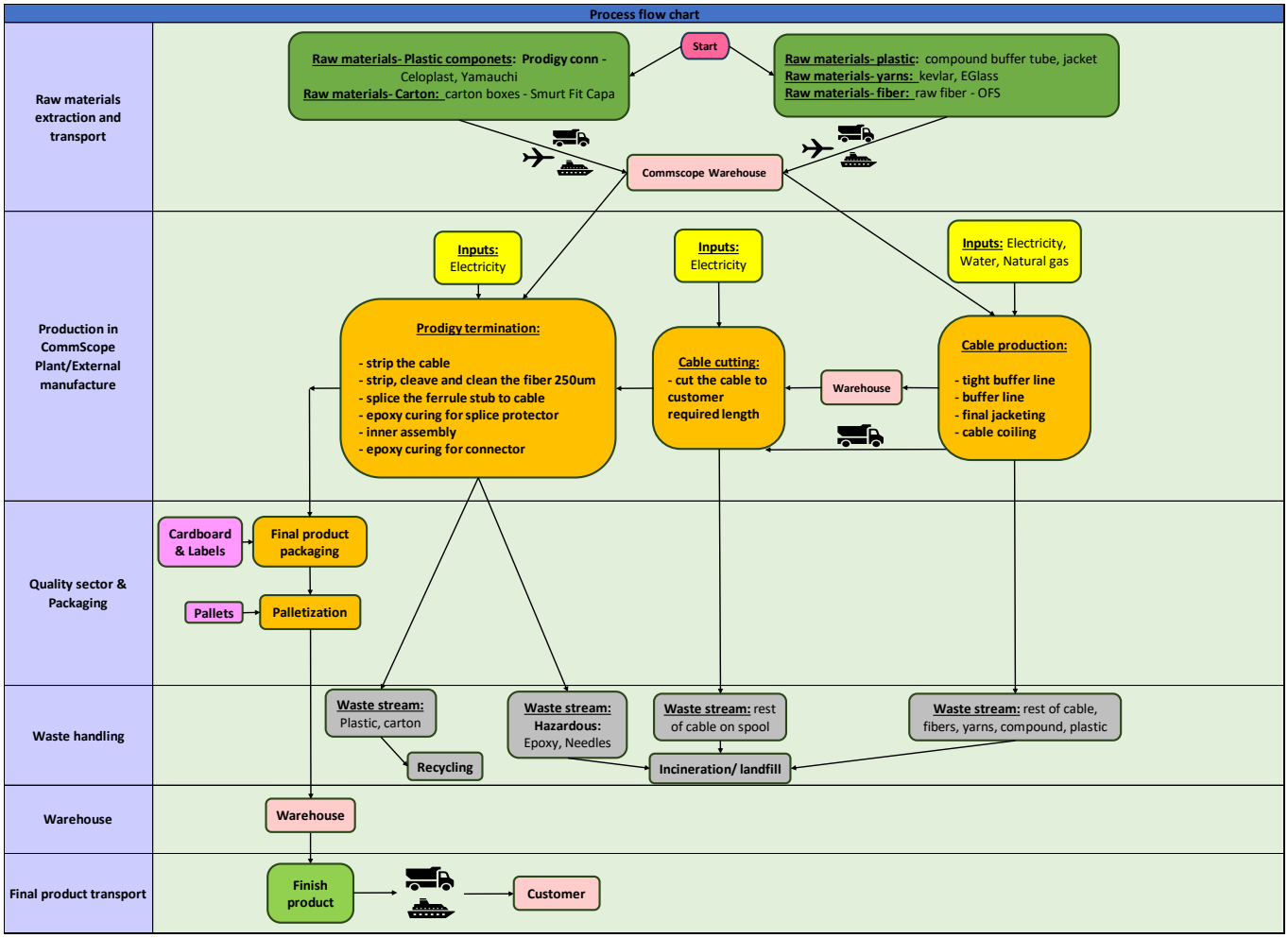
Additional Environmental Information

Background Data

For life cycle modeling of the products considered, SimaPro- LCA software tool, developed by PRé-Sustainability, is used. The Ecoinvent database contains consistent and documented datasets which are available online. To ensure comparability of results in the LCA, data from the Ecoinvent database were used for materials, energy, transportation, and waste treatment.

Manufacturing

The manufacturing process for FDCA-MHD products begins with the sourcing of raw materials, primarily polymer compounds, yarns, rods, optic fiber, buffer gel etc. with transportation to CommScope manufacturing plant. Through buffer, jacketing lines, the fiber drop cable is coiled in reel and moved to cable assembly department. The cable will be cut to the required length in the final assembly first, followed by optic fiber connectorisation processes, including, cable stripping, fiber cleaving, ferrule splicing and epoxy curing etc. After optical testing, the final cable assembly product will be packaged and ready to be shipped to customers.



Packaging

The packaging for this product depends on the length of the cable, slightly increasing with the increase of the cable length. To simply the variation, 3 packaging sizes are defined based on the cable length range. Packaging small: (cable length ≤200m); Packaging large: (cable length >200m). The packaging for this product is composed of three materials: corrugated fiberboard, which is used for the outer packaging and inner buffer inserts, wooden pallets, which are primarily used for transportation, and small amount of Nylon66 cable tie and HDPE bag.

Packaging	Total weight (g)	Fiberboard	Wood	HDPE	Nylon 66	Biogenic Carbon Content (kg C)*
Small	3105	74.86%	16.94%	8.20%	0.19%	1.43
Large	4257.5	69.62%	24.40%	5.97%	0.14%	2.00

*The Biogenic Carbon Content in packaging materials is calculated based on 50% dry mass of fiberboard and wood.

Transformation

Transport to Installation Site (A4)		
Description	**Value**	**Unit**
Transport type	Truck/ lorry > 32 metric ton	
Fuel type/ Liters of Fuel	Diesel, compliant with EURO5	
Liters of Fuel	35	l/100 km
Transport Distance (average)	3500	km
Capacity Utilization	85	%
Weight of products transported	-	kg

Product Installation

CommScope FDCA-MHD products are distributed and installed by trained technicians in accordance with applicable local and national standards. Installation involves only the management of packaging waste, as there is no energy consumption, material loss, or use of auxiliary materials during the process. The product is designed for complete manual installation without the need for power tools, resulting in negligible electricity use and no installation scrap.

Installation into the building (A5)			
Name	**Packaging Small**	**Packaging Large**	**Unit**
Auxiliary materials	-	-	kg
Water consumption	-	-	m^3
Other resources	-	-	kg
Electricity consumption	-	-	kWh
Other energy carriers	-	-	MJ
Product loss per functional unit	0.00E+00	0.00E+00	kg
Waste materials at construction site	0.00E+00	0.00E+00	kg
Output substance (recycle)	0.00E+00	0.00E+00	kg
Output substance (landfill)	0.00E+00	0.00E+00	kg
Output substance (incineration)	0.00E+00	0.00E+00	kg
Packaging waste (recycle)	1.86E+00	2.37E+00	kg
Packaging waste (landfill)	8.33E-01	1.21E+00	kg
Packaging waste (incineration)	4.16E-01	6.78E-01	kg
Direct emissions to ambient air*, soil, and water	6.10E-01	9.94E-01	kg CO_2
VOC emissions	-	-	kg

*CO2 emissions to air from disposal of packaging

Reference Service Life		
Name	**Value**	**Unit**
Reference Service Life	25	years
Declared product properties (at the gate) and finishes, etc.	-	
Design application parameters (if instructed by the manufacturer), including the references to the appropriate practices and application codes	-	
An assumed quality of work, when installed in accordance with the manufacturer's instructions	-	
Outdoor environment, (for outdoor applications), e.g. weathering, pollutants, UV and wind exposure, building orientation, shading, temperature	-	
Indoor environment (for indoor applications), e.g. temperature, moisture, chemical exposure	-	
Usage conditions, e.g. frequency of use, mechanical exposure	-	
Maintenance e.g. required frequency, type and quality and replacement of components	-	

Product Use

No cleaning, maintenance, repair, replacement or refurbishment is required. There is no operational energy or water use.

Operational Energy Use (B6)		
Name	**Value**	**Unit**
Ancillary materials specified by material	-	kg
Net freshwater consumption	-	m^3
Electricity consumption	-	kWh
Power output of equipment	-	kWh
Characteristic performance	-	-
Further assumptions for scenario development	-	-

Disposal

The product goes to 100% landfill. The landfilling weight is given as a range from the shortest to the longest MHD products according to the cable length.

End of Life (C2-C4)		
Name	**MHD**	**Unit**
Collected separately	0	kg
Collected as mixed waste	0	kg
Reuse	0	kg
Recycling	0	kg
Landfilling	3.13E-01~2.83E+01	kg
Incineration with energy recovery	0	kg
Energy conversion- Electricity	0	%
Energy conversion- Heat	0	%

Re-use Phase

Re-use of the product is not common. However, energy in the form of heat and electricity has been recovered from the waste processing of packaging materials at the Installation stage (A5). Energy recovery for the incineration of packaging materials was calculated according to Appendix D of the Part A PCR.

Energy recovery Potential (D)			
Name	**Packaging Small**	**Packaging Large**	**Unit**
Net energy benefit of energy recovery from packaging wastes incineration (A5-Installation) in the form of heat	5.28E+00	7.51E+00	MJ
Net energy benefit of energy recovery from packaging wastes incineration (A5-Installation) in the form of electricity	2.11E+00	3.00E+00	MJ
Net energy benefit of energy recovery from product wastes incineration (C2-C4 End of life Disposal) in the form of heat	0.00E+00	0.00E+00	MJ
Net energy benefit of energy recovery from product wastes incineration (C2-C4 End of life Disposal) in the form of electricity	0.00E+00	0.00E+00	MJ
Total Net energy benefits of energy recovery in the form of heat	5.28E+00	7.51E+00	MJ
Total Net energy benefits of energy recovery in the form of electricity	2.11E+00	3.00E+00	MJ

LCA Results – MHD Cables

Results shown below are for MHD cable A (per 1 meter).

TRACI 2.2 V1.00 / US-Canadian 2008						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**C2**	**C4**
Ozone depletion	kg CFC-11 eq	8.88E-08	8.85E-08	1.97E-10	5.62E-11	1.04E-11
Global warming	kg CO2 eq	2.15E-01	1.94E-01	1.36E-02	3.89E-03	2.90E-03
Smog	kg O3 eq	9.85E-03	8.54E-03	9.65E-04	2.76E-04	6.65E-05
Acidification	kg SO2 eq	6.28E-04	5.70E-04	4.32E-05	1.24E-05	2.74E-06
Respiratory effects	kg PM2.5 eq	1.15E-04	1.04E-04	8.31E-06	2.37E-06	4.02E-07
Freshwater eutrophication	kg P eq	9.95E-05	2.15E-05	9.81E-07	2.80E-07	7.67E-05
Marine eutrophication	kg N eq	1.23E-04	7.48E-05	8.26E-06	2.36E-06	3.72E-05

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

CML-IA baseline V3.11 / EU25						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**C2**	**C4**
Abiotic depletion	kg Sb eq	3.14E-06	3.09E-06	3.81E-08	1.09E-08	7.19E-10
Abiotic depletion (fossil fuels)	MJ	3.89E+00	3.63E+00	1.95E-01	5.57E-02	8.54E-03
Global warming (GWP100a)	kg CO2 eq	2.17E-01	1.96E-01	1.37E-02	3.92E-03	3.13E-03
Ozone layer depletion (ODP)	kg CFC-11 eq	6.65E-08	6.63E-08	1.50E-10	4.27E-11	7.87E-12
Photochemical oxidation	kg C2H4 eq	4.68E-05	4.35E-05	2.11E-06	6.03E-07	5.57E-07
Acidification	kg SO2 eq	5.63E-04	5.13E-04	3.69E-05	1.05E-05	2.09E-06
Eutrophication	kg PO4--- eq	7.84E-04	2.02E-04	1.23E-05	3.51E-06	5.66E-04

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN 15804 + A2 (adapted) V1.03 / EF 3.1 normalization and weighting set						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**C2**	**C4**
Acidification	mol H+ eq	6.95E-04	6.30E-04	4.81E-05	1.37E-05	2.82E-06
Climate change	kg CO2 eq	2.19E-01	1.98E-01	1.38E-02	3.95E-03	3.27E-03
Climate change - Biogenic	kg CO2 eq	2.79E-04	2.71E-04	4.62E-06	1.32E-06	1.71E-06
Climate change - Fossil	kg CO2 eq	2.19E-01	1.98E-01	1.38E-02	3.94E-03	3.27E-03
Climate change - Land use and LU change	kg CO2 eq	1.24E-04	1.16E-04	6.24E-06	1.78E-06	2.38E-07
Ecotoxicity, freshwater	CTUe	1.20E+01	1.18E+01	3.23E-02	9.23E-03	1.19E-01
Ecotoxicity, freshwater - inorganics	CTUe	1.19E+01	1.18E+01	3.13E-02	8.94E-03	1.19E-01
Ecotoxicity, freshwater - organics	CTUe	2.23E-02	2.10E-02	1.00E-03	2.87E-04	6.97E-05
Particulate matter	disease inc.	8.95E-09	7.16E-09	1.35E-09	3.85E-10	6.28E-11
Eutrophication, marine	kg N eq	2.38E-04	1.45E-04	1.55E-05	4.43E-06	7.28E-05
Eutrophication, freshwater	kg P eq	3.49E-05	3.30E-05	1.50E-06	4.28E-07	4.11E-08
Eutrophication, terrestrial	mol N eq	1.70E-03	1.47E-03	1.68E-04	4.81E-05	1.15E-05
Human toxicity, cancer	CTUh	7.19E-10	7.16E-10	2.23E-12	6.39E-13	2.18E-13
Human toxicity, cancer - inorganics	CTUh	6.97E-10	6.96E-10	9.64E-13	2.76E-13	1.64E-13
Human toxicity, cancer - organics	CTUh	2.19E-11	2.02E-11	1.27E-12	3.63E-13	5.41E-14
Human toxicity, non-cancer	CTUh	1.41E-07	1.41E-07	1.26E-10	3.60E-11	3.80E-11
Human toxicity, non-cancer - inorganics	CTUh	1.41E-07	1.41E-07	1.18E-10	3.38E-11	3.42E-11

Human toxicity, non-cancer - organics	CTUh	1.29E-10	1.15E-10	7.71E-12	2.20E-12	3.79E-12
Ionising radiation	kBq U-235 eq	7.73E+06	7.73E+06	1.71E-04	4.87E-05	7.32E-06
Land use	Pt	7.84E-01	5.12E-01	1.96E-01	5.59E-02	2.04E-02
Ozone depletion	kg CFC11 eq	9.83E-08	9.81E-08	1.86E-10	5.33E-11	9.83E-12
Photochemical ozone formation	kg NMVOC eq	9.38E-04	8.44E-04	6.91E-05	1.97E-05	4.72E-06
Resource use, fossils	MJ	3.99E+00	3.72E+00	1.98E-01	5.64E-02	8.66E-03
Resource use, minerals and metals	kg Sb eq	3.14E-06	3.09E-06	3.81E-08	1.09E-08	7.18E-10
Water use	m3 depriv.	1.98E-02	2.41E-02	1.03E-03	2.94E-04	-5.65E-03

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN15804+A2: Resource Use

Parameter		Unit	Total	A1-A3	A4	C2	C4
PERE	Use of renwable primary energy excluding renewable primary energy resources used as raw materials	MJ	9.98E-02	9.62E-02	2.74E-03	7.82E-04	1.19E-04
PERM	Use of renewable primary energy resources used as raw materials	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	Total use of renewable primary energy resources	MJ	9.98E-02	9.62E-02	2.74E-03	7.82E-04	1.19E-04
PENRE	Use of non-renwable primary energy excluding renewable primary energy resources used as raw materials	MJ	4.31E+00	4.03E+00	2.10E-01	6.00E-02	9.22E-03
PENRM	Use of non-renewable primary energy resources used as raw materials	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	Total use of non-renewable primary energy resources	MJ	4.31E+00	4.03E+00	2.10E-01	6.00E-02	9.22E-03
SM	Use of secondary material	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of non-renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Net use of fresh water	m^3	2.00E-02	2.43E-02	1.04E-03	2.96E-04	-5.65E-03

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN15804+A2: Waste Categories and Output Flows

Parameter		Unit	Total	A1-A3	A4	C2	C4
HWD	Hazardous waste disposed	kg	1.40E-04	1.32E-04	5.95E-06	1.70E-06	1.85E-07
NHWD	Non-hazardous waste disposed	kg	8.31E-02	2.63E-02	1.65E-02	4.72E-03	3.55E-02
RWD	Radioactive waste disposed	kg	1.54E-06	1.49E-06	4.17E-08	1.19E-08	1.79E-09
CRU	Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER	Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE	Exported energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

Results shown below are for MHD cable H (per 1 meter).

TRACI 2.2 V1.00 / US-Canadian 2008						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**C2**	**C4**
Ozone depletion	kg CFC-11 eq	8.96E-08	8.94E-08	2.13E-10	6.09E-11	1.08E-11
Global warming	kg CO2 eq	2.29E-01	2.07E-01	1.48E-02	4.22E-03	3.01E-03
Smog	kg O3 eq	1.15E-02	1.01E-02	1.05E-03	2.99E-04	6.90E-05
Acidification	kg SO2 eq	7.20E-04	6.57E-04	4.69E-05	1.34E-05	2.84E-06
Respiratory effects	kg PM2.5 eq	1.29E-04	1.17E-04	9.02E-06	2.58E-06	4.17E-07
Freshwater eutrophication	kg P eq	1.24E-04	4.29E-05	1.06E-06	3.04E-07	7.97E-05
Marine eutrophication	kg N eq	1.42E-04	9.18E-05	8.96E-06	2.56E-06	3.86E-05

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

CML-IA baseline V3.11 / EU25						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**C2**	**C4**
Abiotic depletion	kg Sb eq	4.06E-06	4.01E-06	4.14E-08	1.18E-08	7.47E-10
Abiotic depletion (fossil fuels)	MJ	4.12E+00	3.84E+00	2.11E-01	6.04E-02	8.87E-03
Global warming (GWP100a)	kg CO2 eq	2.32E-01	2.10E-01	1.49E-02	4.25E-03	3.25E-03
Ozone layer depletion (ODP)	kg CFC-11 eq	6.72E-08	6.70E-08	1.62E-10	4.64E-11	8.17E-12
Photochemical oxidation	kg C2H4 eq	5.16E-05	4.81E-05	2.29E-06	6.54E-07	5.78E-07
Acidification	kg SO2 eq	6.43E-04	5.89E-04	4.00E-05	1.14E-05	2.17E-06
Eutrophication	kg PO4--- eq	9.64E-04	3.59E-04	1.33E-05	3.81E-06	5.88E-04

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN 15804 + A2 (adapted) V1.03 / EF 3.1 normalization and weighting set						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**C2**	**C4**
Acidification	mol H+ eq	8.03E-04	7.33E-04	5.22E-05	1.49E-05	2.92E-06
Climate change	kg CO2 eq	2.34E-01	2.11E-01	1.50E-02	4.28E-03	3.40E-03
Climate change - Biogenic	kg CO2 eq	2.41E-04	2.33E-04	5.01E-06	1.43E-06	1.77E-06
Climate change - Fossil	kg CO2 eq	2.34E-01	2.11E-01	1.50E-02	4.28E-03	3.40E-03
Climate change - Land use and LU change	kg CO2 eq	1.44E-04	1.35E-04	6.77E-06	1.93E-06	2.47E-07
Ecotoxicity, freshwater	CTUe	1.32E+01	1.30E+01	3.50E-02	1.00E-02	1.24E-01
Ecotoxicity, freshwater - inorganics	CTUe	1.32E+01	1.30E+01	3.39E-02	9.70E-03	1.24E-01
Ecotoxicity, freshwater - organics	CTUe	2.41E-02	2.26E-02	1.09E-03	3.11E-04	7.23E-05
Particulate matter	disease inc.	1.03E-08	8.32E-09	1.46E-09	4.18E-10	6.52E-11
Eutrophication, marine	kg N eq	2.69E-04	1.72E-04	1.68E-05	4.80E-06	7.56E-05
Eutrophication, freshwater	kg P eq	8.03E-05	7.81E-05	1.63E-06	4.65E-07	4.26E-08
Eutrophication, terrestrial	mol N eq	2.06E-03	1.82E-03	1.83E-04	5.22E-05	1.19E-05
Human toxicity, cancer	CTUh	7.65E-10	7.62E-10	2.42E-12	6.93E-13	2.27E-13
Human toxicity, cancer - inorganics	CTUh	7.39E-10	7.38E-10	1.05E-12	2.99E-13	1.70E-13
Human toxicity, cancer - organics	CTUh	2.61E-11	2.43E-11	1.38E-12	3.94E-13	5.62E-14
Human toxicity, non-cancer	CTUh	1.49E-07	1.49E-07	1.37E-10	3.91E-11	3.95E-11
Human toxicity, non-cancer - inorganics	CTUh	1.49E-07	1.49E-07	1.28E-10	3.67E-11	3.55E-11

Human toxicity, non-cancer - organics	CTUh	1.45E-10	1.30E-10	8.37E-12	2.39E-12	3.94E-12
Ionising radiation	kBq U-235 eq	8.18E+06	8.18E+06	1.85E-04	5.29E-05	7.60E-06
Land use	Pt	8.95E-01	6.01E-01	2.12E-01	6.06E-02	2.12E-02
Ozone depletion	kg CFC11 eq	9.93E-08	9.90E-08	2.02E-10	5.78E-11	1.02E-11
Photochemical ozone formation	kg NMVOC eq	1.04E-03	9.39E-04	7.49E-05	2.14E-05	4.90E-06
Resource use, fossils	MJ	4.23E+00	3.95E+00	2.14E-01	6.12E-02	8.99E-03
Resource use, minerals and metals	kg Sb eq	4.06E-06	4.01E-06	4.13E-08	1.18E-08	7.46E-10
Water use	m3 depriv.	2.28E-02	2.73E-02	1.12E-03	3.19E-04	-5.87E-03

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN15804+A2: Resource Use

Parameter		Unit	Total	A1-A3	A4	C2	C4
PERE	Use of renwable primary energy excluding renewable primary energy resources used as raw materials	MJ	1.17E-01	1.13E-01	2.97E-03	8.48E-04	1.24E-04
PERM	Use of renewable primary energy resources used as raw materials	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	Total use of renewable primary energy resources	MJ	1.17E-01	1.13E-01	2.97E-03	8.48E-04	1.24E-04
PENRE	Use of non-renwable primary energy excluding renewable primary energy resources used as raw materials	MJ	4.58E+00	4.27E+00	2.28E-01	6.51E-02	9.57E-03
PENRM	Use of non-renewable primary energy resources used as raw materials	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	Total use of non-renewable primary energy resources	MJ	4.58E+00	4.27E+00	2.28E-01	6.51E-02	9.57E-03
SM	Use of secondary material	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of non-renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Net use of fresh water	m^3	2.35E-02	2.79E-02	1.12E-03	3.21E-04	-5.87E-03

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN15804+A2: Waste Categories and Output Flows

Parameter		Unit	Total	A1-A3	A4	C2	C4
HWD	Hazardous waste disposed	kg	1.53E-04	1.45E-04	6.46E-06	1.85E-06	1.92E-07
NHWD	Non-hazardous waste disposed	kg	8.93E-02	2.93E-02	1.79E-02	5.12E-03	3.69E-02
RWD	Radioactive waste disposed	kg	1.66E-06	1.60E-06	4.53E-08	1.29E-08	1.86E-09
CRU	Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER	Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE	Exported energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

LCA Results – MHD Connectors

Results shown below are for MHD connector Female kit (per 1 piece).

TRACI 2.2 V1.00 / US-Canadian 2008						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**C2**	**C4**
Ozone depletion	kg CFC-11 eq	5.88E-08	5.86E-08	1.60E-10	4.57E-11	8.43E-12
Global warming	kg CO2 eq	7.22E-01	7.05E-01	1.11E-02	3.17E-03	2.36E-03
Smog	kg O3 eq	4.12E-02	4.02E-02	7.85E-04	2.24E-04	5.41E-05
Acidification	kg SO2 eq	1.87E-03	1.83E-03	3.52E-05	1.01E-05	2.23E-06
Respiratory effects	kg PM2.5 eq	2.42E-04	2.33E-04	6.76E-06	1.93E-06	3.27E-07
Freshwater eutrophication	kg P eq	9.37E-05	3.02E-05	7.98E-07	2.28E-07	6.24E-05
Marine eutrophication	kg N eq	9.10E-04	8.71E-04	6.72E-06	1.92E-06	3.03E-05

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

CML-IA baseline V3.11 / EU25						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**C2**	**C4**
Abiotic depletion	kg Sb eq	1.23E-06	1.19E-06	3.10E-08	8.87E-09	5.85E-10
Abiotic depletion (fossil fuels)	MJ	1.12E+01	1.10E+01	1.59E-01	4.53E-02	6.95E-03
Global warming (GWP100a)	kg CO2 eq	7.28E-01	7.11E-01	1.12E-02	3.19E-03	2.55E-03
Ozone layer depletion (ODP)	kg CFC-11 eq	5.44E-08	5.43E-08	1.22E-10	3.48E-11	6.40E-12
Photochemical oxidation	kg C2H4 eq	3.58E-04	3.55E-04	1.72E-06	4.91E-07	4.53E-07
Acidification	kg SO2 eq	1.58E-03	1.54E-03	3.00E-05	8.57E-06	1.70E-06
Eutrophication	kg PO4--- eq	1.15E-03	6.72E-04	1.00E-05	2.86E-06	4.61E-04

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN 15804 + A2 (adapted) V1.03 / EF 3.1 normalization and weighting set						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**C2**	**C4**
Acidification	mol H+ eq	2.09E-03	2.04E-03	3.91E-05	1.12E-05	2.29E-06
Climate change	kg CO2 eq	7.31E-01	7.14E-01	1.12E-02	3.21E-03	2.66E-03
Climate change - Biogenic	kg CO2 eq	6.78E-04	6.72E-04	3.76E-06	1.07E-06	1.39E-06
Climate change - Fossil	kg CO2 eq	7.31E-01	7.14E-01	1.12E-02	3.21E-03	2.66E-03
Climate change - Land use and LU change	kg CO2 eq	1.70E-04	1.63E-04	5.08E-06	1.45E-06	1.94E-07
Ecotoxicity, freshwater	CTUe	9.15E+01	9.14E+01	2.63E-02	7.51E-03	9.69E-02
Ecotoxicity, freshwater - inorganics	CTUe	8.20E+01	8.19E+01	2.55E-02	7.28E-03	9.68E-02
Ecotoxicity, freshwater - organics	CTUe	9.48E+00	9.48E+00	8.17E-04	2.33E-04	5.67E-05
Particulate matter	disease inc.	2.44E-08	2.29E-08	1.10E-09	3.14E-10	5.11E-11
Eutrophication, marine	kg N eq	8.61E-04	7.85E-04	1.26E-05	3.60E-06	5.92E-05
Eutrophication, freshwater	kg P eq	6.76E-05	6.60E-05	1.22E-06	3.49E-07	3.34E-08
Eutrophication, terrestrial	mol N eq	7.26E-03	7.08E-03	1.37E-04	3.92E-05	9.33E-06
Human toxicity, cancer	CTUh	1.99E-09	1.99E-09	1.82E-12	5.20E-13	1.78E-13
Human toxicity, cancer - inorganics	CTUh	4.86E-11	4.74E-11	7.85E-13	2.24E-13	1.34E-13
Human toxicity, cancer - organics	CTUh	1.94E-09	1.94E-09	1.03E-12	2.95E-13	4.40E-14
Human toxicity, non-cancer	CTUh	4.37E-09	4.21E-09	1.03E-10	2.93E-11	3.09E-11
Human toxicity, non-cancer - inorganics	CTUh	4.11E-09	3.96E-09	9.63E-11	2.75E-11	2.79E-11

Human toxicity, non-cancer - organics	CTUh	2.49E-10	2.38E-10	6.28E-12	1.79E-12	3.08E-12
Ionising radiation	kBq U-235 eq	7.55E+08	7.55E+08	1.39E-04	3.97E-05	5.95E-06
Land use	Pt	1.12E+00	9.02E-01	1.59E-01	4.55E-02	1.66E-02
Ozone depletion	kg CFC11 eq	5.55E-08	5.53E-08	1.52E-10	4.34E-11	8.00E-12
Photochemical ozone formation	kg NMVOC eq	2.67E-03	2.60E-03	5.62E-05	1.61E-05	3.84E-06
Resource use, fossils	MJ	1.14E+01	1.12E+01	1.61E-01	4.59E-02	7.04E-03
Resource use, minerals and metals	kg Sb eq	1.23E-06	1.19E-06	3.10E-08	8.86E-09	5.85E-10
Water use	m3 depriv.	-3.45E+00	-3.45E+00	8.37E-04	2.39E-04	-4.60E-03

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN15804+A2: Resource Use

Parameter		Unit	Total	A1-A3	A4	C2	C4
PERE	Use of renwable primary energy excluding renewable primary energy resources used as raw materials	MJ	1.43E-01	1.40E-01	2.23E-03	6.36E-04	9.72E-05
PERM	Use of renewable primary energy resources used as raw materials	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	Total use of renewable primary energy resources	MJ	1.43E-01	1.40E-01	2.23E-03	6.36E-04	9.72E-05
PENRE	Use of non-renwable primary energy excluding renewable primary energy resources used as raw materials	MJ	1.20E+01	1.18E+01	1.71E-01	4.89E-02	7.50E-03
PENRM	Use of non-renewable primary energy resources used as raw materials	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	Total use of non-renewable primary energy resources	MJ	1.20E+01	1.18E+01	1.71E-01	4.89E-02	7.50E-03
SM	Use of secondary material	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of non-renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Net use of fresh water	m^3	-3.39E+00	-3.38E+00	8.43E-04	2.41E-04	-4.60E-03

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN15804+A2: Waste Categories and Output Flows

Parameter		Unit	Total	A1-A3	A4	C2	C4
HWD	Hazardous waste disposed	kg	7.49E-05	6.85E-05	4.85E-06	1.38E-06	1.50E-07
NHWD	Non-hazardous waste disposed	kg	6.40E-02	1.78E-02	1.35E-02	3.84E-03	2.89E-02
RWD	Radioactive waste disposed	kg	1.42E-06	1.37E-06	3.40E-08	9.71E-09	1.46E-09
CRU	Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER	Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE	Exported energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

Results shown below are for MHD connector Male kit (per 1 piece).

TRACI 2.2 V1.00 / US-Canadian 2008						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**C2**	**C4**
Ozone depletion	kg CFC-11 eq	1.21E-07	1.21E-07	1.71E-10	4.89E-11	9.02E-12
Global warming	kg CO2 eq	7.43E-01	7.25E-01	1.19E-02	3.39E-03	2.52E-03
Smog	kg O3 eq	4.24E-02	4.12E-02	8.41E-04	2.40E-04	5.79E-05
Acidification	kg SO2 eq	1.96E-03	1.90E-03	3.77E-05	1.08E-05	2.39E-06
Respiratory effects	kg PM2.5 eq	2.67E-04	2.57E-04	7.24E-06	2.07E-06	3.50E-07
Freshwater eutrophication	kg P eq	1.01E-04	3.34E-05	8.55E-07	2.44E-07	6.69E-05
Marine eutrophication	kg N eq	9.63E-04	9.21E-04	7.20E-06	2.06E-06	3.24E-05

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

CML-IA baseline V3.11 / EU25						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**C2**	**C4**
Abiotic depletion	kg Sb eq	1.41E-06	1.37E-06	3.32E-08	9.49E-09	6.26E-10
Abiotic depletion (fossil fuels)	MJ	1.16E+01	1.13E+01	1.70E-01	4.85E-02	7.44E-03
Global warming (GWP100a)	kg CO2 eq	7.49E-01	7.31E-01	1.20E-02	3.42E-03	2.73E-03
Ozone layer depletion (ODP)	kg CFC-11 eq	1.17E-07	1.17E-07	1.30E-10	3.72E-11	6.86E-12
Photochemical oxidation	kg C2H4 eq	3.85E-04	3.82E-04	1.84E-06	5.26E-07	4.85E-07
Acidification	kg SO2 eq	1.66E-03	1.62E-03	3.21E-05	9.18E-06	1.82E-06
Eutrophication	kg PO4--- eq	1.23E-03	7.19E-04	1.07E-05	3.06E-06	4.94E-04

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN 15804 + A2 (adapted) V1.03 / EF 3.1 normalization and weighting set						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**C2**	**C4**
Acidification	mol H+ eq	2.18E-03	2.13E-03	4.19E-05	1.20E-05	2.45E-06
Climate change	kg CO2 eq	7.53E-01	7.34E-01	1.20E-02	3.44E-03	2.85E-03
Climate change - Biogenic	kg CO2 eq	8.14E-04	8.08E-04	4.03E-06	1.15E-06	1.49E-06
Climate change - Fossil	kg CO2 eq	7.52E-01	7.34E-01	1.20E-02	3.44E-03	2.85E-03
Climate change - Land use and LU change	kg CO2 eq	1.89E-04	1.82E-04	5.44E-06	1.55E-06	2.07E-07
Ecotoxicity, freshwater	CTUe	9.87E+01	9.85E+01	2.81E-02	8.04E-03	1.04E-01
Ecotoxicity, freshwater - inorganics	CTUe	8.85E+01	8.83E+01	2.73E-02	7.79E-03	1.04E-01
Ecotoxicity, freshwater - organics	CTUe	1.02E+01	1.02E+01	8.75E-04	2.50E-04	6.07E-05
Particulate matter	disease inc.	2.56E-08	2.40E-08	1.17E-09	3.36E-10	5.47E-11
Eutrophication, marine	kg N eq	8.94E-04	8.13E-04	1.35E-05	3.86E-06	6.34E-05
Eutrophication, freshwater	kg P eq	7.60E-05	7.43E-05	1.31E-06	3.73E-07	3.58E-08
Eutrophication, terrestrial	mol N eq	7.46E-03	7.26E-03	1.47E-04	4.19E-05	9.99E-06
Human toxicity, cancer	CTUh	2.16E-09	2.15E-09	1.95E-12	5.56E-13	1.90E-13
Human toxicity, cancer - inorganics	CTUh	5.55E-11	5.43E-11	8.40E-13	2.40E-13	1.43E-13
Human toxicity, cancer - organics	CTUh	2.10E-09	2.10E-09	1.11E-12	3.16E-13	4.71E-14
Human toxicity, non-cancer	CTUh	4.60E-09	4.42E-09	1.10E-10	3.14E-11	3.31E-11
Human toxicity, non-cancer - inorganics	CTUh	4.33E-09	4.17E-09	1.03E-10	2.95E-11	2.98E-11

Human toxicity, non-cancer - organics	CTUh	2.60E-10	2.49E-10	6.72E-12	1.92E-12	3.30E-12
Ionising radiation	kBq U-235 eq	7.55E+08	7.55E+08	1.49E-04	4.25E-05	6.38E-06
Land use	Pt	1.21E+00	9.76E-01	1.71E-01	4.87E-02	1.78E-02
Ozone depletion	kg CFC11 eq	1.11E-07	1.11E-07	1.62E-10	4.64E-11	8.56E-12
Photochemical ozone formation	kg NMVOC eq	2.79E-03	2.71E-03	6.02E-05	1.72E-05	4.12E-06
Resource use, fossils	MJ	1.18E+01	1.15E+01	1.72E-01	4.92E-02	7.54E-03
Resource use, minerals and metals	kg Sb eq	1.41E-06	1.37E-06	3.32E-08	9.49E-09	6.26E-10
Water use	m3 depriv.	-3.44E+00	-3.43E+00	8.97E-04	2.56E-04	-4.92E-03

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN15804+A2: Resource Use

Parameter		Unit	Total	A1-A3	A4	C2	C4
PERE	Use of renwable primary energy excluding renewable primary energy resources used as raw materials	MJ	1.63E-01	1.60E-01	2.38E-03	6.81E-04	1.04E-04
PERM	Use of renewable primary energy resources used as raw materials	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	Total use of renewable primary energy resources	MJ	1.63E-01	1.60E-01	2.38E-03	6.81E-04	1.04E-04
PENRE	Use of non-renwable primary energy excluding renewable primary energy resources used as raw materials	MJ	1.24E+01	1.21E+01	1.83E-01	5.23E-02	8.03E-03
PENRM	Use of non-renewable primary energy resources used as raw materials	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	Total use of non-renewable primary energy resources	MJ	1.24E+01	1.21E+01	1.83E-01	5.23E-02	8.03E-03
SM	Use of secondary material	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of non-renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Net use of fresh water	m^3	-3.37E+00	-3.37E+00	9.03E-04	2.58E-04	-4.92E-03

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN15804+A2: Waste Categories and Output Flows

Parameter		Unit	Total	A1-A3	A4	C2	C4
HWD	Hazardous waste disposed	kg	7.94E-05	7.26E-05	5.19E-06	1.48E-06	1.61E-07
NHWD	Non-hazardous waste disposed	kg	6.86E-02	1.91E-02	1.44E-02	4.12E-03	3.10E-02
RWD	Radioactive waste disposed	kg	1.54E-06	1.49E-06	3.64E-08	1.04E-08	1.56E-09
CRU	Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER	Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE	Exported energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

LCA Results – MHD Packaging

Results shown below are for MHD Packaging large (per 1 piece; when cable length L >200m).

TRACI 2.2 V1.00 / US-Canadian 2008						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**A5**	**D**
Ozone depletion	kg CFC-11 eq	1.50E-07	1.19E-07	2.36E-08	7.39E-09	-3.54E-09
Global warming	kg CO2 eq	6.80E+00	4.33E+00	1.63E+00	8.44E-01	-5.56E-01
Smog	kg O3 eq	4.46E-01	2.88E-01	1.16E-01	4.28E-02	-3.26E-02
Acidification	kg SO2 eq	2.32E-02	1.62E-02	5.19E-03	1.82E-03	-2.39E-03
Respiratory effects	kg PM2.5 eq	3.54E-03	2.23E-03	9.98E-04	3.11E-04	-8.12E-04
Freshwater eutrophication	kg P eq	2.23E-03	1.07E-03	1.18E-04	1.04E-03	-1.64E-04
Marine eutrophication	kg N eq	5.05E-03	3.47E-03	9.92E-04	5.91E-04	-2.89E-04

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

CML-IA baseline V3.11 / EU25						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**A5**	**D**
Abiotic depletion	kg Sb eq	2.42E-05	1.83E-05	4.58E-06	1.38E-06	-2.25E-07
Abiotic depletion (fossil fuels)	MJ	9.61E+01	6.56E+01	2.34E+01	7.10E+00	-6.27E+00
Global warming (GWP100a)	kg CO2 eq	6.87E+00	4.37E+00	1.65E+00	8.53E-01	-5.59E-01
Ozone layer depletion (ODP)	kg CFC-11 eq	1.16E-07	9.27E-08	1.80E-08	5.67E-09	-2.80E-09
Photochemical oxidation	kg C2H4 eq	1.31E-03	9.69E-04	2.53E-04	8.86E-05	-8.74E-05
Acidification	kg SO2 eq	2.00E-02	1.40E-02	4.42E-03	1.52E-03	-2.30E-03
Eutrophication	kg PO4--- eq	1.98E-02	1.06E-02	1.48E-03	7.72E-03	-1.34E-03

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN 15804 + A2 (adapted) V1.03 / EF 3.1 normalization and weighting set						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**A5**	**D**
Acidification	mol H+ eq	2.65E-02	1.87E-02	5.77E-03	2.01E-03	-2.78E-03
Climate change	kg CO2 eq	6.41E+00	2.24E+00	1.66E+00	2.51E+00	-6.31E-01
Climate change - Biogenic	kg CO2 eq	-4.04E-01	-2.09E+00	5.55E-04	1.69E+00	0.00E+00
Climate change - Fossil	kg CO2 eq	6.79E+00	4.31E+00	1.66E+00	8.27E-01	-5.59E-01
Climate change - Land use and LU change	kg CO2 eq	2.80E-02	2.70E-02	7.49E-04	2.29E-04	-1.18E-03
Ecotoxicity, freshwater	CTUe	3.93E+01	3.22E+01	3.88E+00	3.24E+00	-1.22E+00
Ecotoxicity, freshwater - inorganics	CTUe	3.17E+01	2.48E+01	3.76E+00	3.20E+00	-1.20E+00
Ecotoxicity, freshwater - organics	CTUe	7.58E+00	7.42E+00	1.20E-01	3.78E-02	-2.61E-02
Particulate matter	disease inc.	4.32E-07	2.20E-07	1.62E-07	5.00E-08	-2.59E-08
Eutrophication, marine	kg N eq	1.05E-02	7.47E-03	1.86E-03	1.15E-03	-5.75E-04
Eutrophication, freshwater	kg P eq	2.18E-03	1.94E-03	1.80E-04	6.31E-05	-2.75E-04
Eutrophication, terrestrial	mol N eq	8.87E-02	6.10E-02	2.02E-02	7.46E-03	-5.72E-03
Human toxicity, cancer	CTUh	3.02E-09	2.58E-09	2.68E-10	1.66E-10	-6.13E-11
Human toxicity, cancer - inorganics	CTUh	6.89E-10	4.67E-10	1.16E-10	1.06E-10	-4.02E-11
Human toxicity, cancer - organics	CTUh	2.33E-09	2.12E-09	1.53E-10	5.98E-11	-2.12E-11
Human toxicity, non-cancer	CTUh	7.71E-08	5.36E-08	1.51E-08	8.34E-09	-3.05E-09
Human toxicity, non-cancer - inorganics	CTUh	6.48E-08	4.26E-08	1.42E-08	8.00E-09	-2.97E-09

Human toxicity, non-cancer - organics	CTUh	1.23E-08	1.11E-08	9.26E-10	3.39E-10	-8.31E-11
Ionising radiation	kBq U-235 eq	4.06E-01	3.79E-01	2.05E-02	6.41E-03	-7.89E-02
Land use	Pt	2.70E+02	2.40E+02	2.35E+01	7.17E+00	-1.06E+00
Ozone depletion	kg CFC11 eq	1.43E-07	1.14E-07	2.24E-08	7.02E-09	-3.32E-09
Photochemical ozone formation	kg NMVOC eq	3.05E-02	1.94E-02	8.29E-03	2.83E-03	-1.69E-03
Resource use, fossils	MJ	1.03E+02	7.22E+01	2.37E+01	7.20E+00	-7.53E+00
Resource use, minerals and metals	kg Sb eq	2.35E-05	1.76E-05	4.58E-06	1.38E-06	-2.22E-07
Water use	m3 depriv.	2.06E+00	1.97E+00	1.24E-01	-3.57E-02	-7.73E-02

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN15804+A2: Resource Use

Parameter		Unit	Total	A1-A3	A4	A5	D
PERE	Use of renwable primary energy excluding renewable primary energy resources used as raw materials	MJ	4.63E+01	4.72E+01	3.28E-01	1.06E-01	-1.00E+00
PERM	Use of renewable primary energy resources used as raw materials	MJ	6.20E+01	6.20E+01	0.00E+00	0.00E+00	0.00E+00
PERT	Total use of renewable primary energy resources	MJ	1.08E+02	1.09E+02	3.28E-01	1.06E-01	-1.00E+00
PENRE	Use of non-renwable primary energy excluding renewable primary energy resources used as raw materials	MJ	1.03E+02	1.03E+02	2.52E+01	7.67E+00	-8.01E+00
PENRM	Use of non-renewable primary energy resources used as raw materials	MJ	1.04E+00	1.04E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	Total use of non-renewable primary energy resources	MJ	1.04E+02	1.04E+02	2.52E+01	7.67E+00	-8.01E+00
SM	Use of secondary material	kg	3.38E+00	3.38E+00	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of non-renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Net use of fresh water	m^3	1.97E+00	2.09E+00	1.24E-01	-3.56E-02	-7.90E-02

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN15804+A2: Waste Categories and Output Flows

Parameter		Unit	Total	A1-A3	A4	A5	D
HWD	Hazardous waste disposed	kg	3.94E-02	3.31E-02	7.15E-04	1.32E-02	-6.91E-03
NHWD	Non-hazardous waste disposed	kg	4.23E+00	2.98E+00	1.98E+00	1.26E+00	-1.45E-02
RWD	Radioactive waste disposed	kg	8.36E-05	1.01E-04	5.01E-06	1.57E-06	-1.92E-05
CRU	Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	Materials for recycling	kg	2.37E+00	0.00E+00	0.00E+00	2.37E+00	0.00E+00
MER	Materials for energy recovery	kg	6.78E-01	0.00E+00	0.00E+00	6.78E-01	0.00E+00
EE	Exported energy	MJ	1.05E+01	0.00E+00	0.00E+00	1.05E+01	0.00E+00

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

Results shown below are for MHD Packaging small (per 1 piece; when cable length L ≤200m).

TRACI 2.2 V1.00 / US-Canadian 2008						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**A5**	**D**
Ozone depletion	kg CFC-11 eq	1.18E-07	9.56E-08	1.72E-08	5.39E-09	-2.49E-09
Global warming	kg CO2 eq	5.37E+00	3.48E+00	1.19E+00	6.95E-01	-3.91E-01
Smog	kg O3 eq	3.40E-01	2.24E-01	8.45E-02	3.12E-02	-2.29E-02
Acidification	kg SO2 eq	1.80E-02	1.29E-02	3.79E-03	1.33E-03	-1.68E-03
Respiratory effects	kg PM2.5 eq	2.77E-03	1.82E-03	7.28E-04	2.26E-04	-5.71E-04
Freshwater eutrophication	kg P eq	1.62E-03	8.57E-04	8.59E-05	6.78E-04	-1.16E-04
Marine eutrophication	kg N eq	3.88E-03	2.71E-03	7.23E-04	4.49E-04	-2.03E-04

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

CML-IA baseline V3.11 / EU25						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**A5**	**D**
Abiotic depletion	kg Sb eq	1.90E-05	1.46E-05	3.34E-06	1.01E-06	-1.58E-07
Abiotic depletion (fossil fuels)	MJ	7.68E+01	5.46E+01	1.71E+01	5.17E+00	-4.41E+00
Global warming (GWP100a)	kg CO2 eq	5.42E+00	3.52E+00	1.20E+00	7.00E-01	-3.93E-01
Ozone layer depletion (ODP)	kg CFC-11 eq	9.20E-08	7.48E-08	1.31E-08	4.14E-09	-1.97E-09
Photochemical oxidation	kg C2H4 eq	1.02E-03	7.67E-04	1.85E-04	6.35E-05	-6.15E-05
Acidification	kg SO2 eq	1.55E-02	1.12E-02	3.23E-03	1.11E-03	-1.62E-03
Eutrophication	kg PO4--- eq	1.46E-02	8.41E-03	1.08E-03	5.07E-03	-9.41E-04

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN 15804 + A2 (adapted) V1.03 / EF 3.1 normalization and weighting set						
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**A5**	**D**
Acidification	mol H+ eq	2.06E-02	1.49E-02	4.21E-03	1.47E-03	-1.96E-03
Climate change	kg CO2 eq	5.21E+00	2.21E+00	1.21E+00	1.79E+00	-4.44E-01
Climate change - Biogenic	kg CO2 eq	-1.79E-01	-1.28E+00	4.05E-04	1.10E+00	0.00E+00
Climate change - Fossil	kg CO2 eq	5.37E+00	3.47E+00	1.21E+00	6.88E-01	-3.93E-01
Climate change - Land use and LU change	kg CO2 eq	2.17E-02	2.10E-02	5.47E-04	1.67E-04	-8.33E-04
Ecotoxicity, freshwater	CTUe	3.16E+01	2.61E+01	2.83E+00	2.67E+00	-8.61E-01
Ecotoxicity, freshwater - inorganics	CTUe	2.56E+01	2.02E+01	2.74E+00	2.64E+00	-8.43E-01
Ecotoxicity, freshwater - organics	CTUe	5.93E+00	5.81E+00	8.79E-02	2.75E-02	-1.84E-02
Particulate matter	disease inc.	3.24E-07	1.70E-07	1.18E-07	3.63E-08	-1.82E-08
Eutrophication, marine	kg N eq	8.08E-03	5.85E-03	1.36E-03	8.73E-04	-4.05E-04
Eutrophication, freshwater	kg P eq	1.71E-03	1.54E-03	1.31E-04	4.47E-05	-1.94E-04
Eutrophication, terrestrial	mol N eq	6.77E-02	4.75E-02	1.47E-02	5.45E-03	-4.03E-03
Human toxicity, cancer	CTUh	1.99E-09	1.67E-09	1.96E-10	1.27E-10	-4.32E-11
Human toxicity, cancer - inorganics	CTUh	5.36E-10	3.69E-10	8.44E-11	8.31E-11	-2.83E-11
Human toxicity, cancer - organics	CTUh	1.46E-09	1.30E-09	1.11E-10	4.42E-11	-1.49E-11
Human toxicity, non-cancer	CTUh	5.93E-08	4.21E-08	1.10E-08	6.22E-09	-2.15E-09
Human toxicity, non-cancer - inorganics	CTUh	4.97E-08	3.34E-08	1.04E-08	5.98E-09	-2.09E-09

Human toxicity, non-cancer - organics	CTUh	9.59E-09	8.67E-09	6.75E-10	2.39E-10	-5.84E-11
Ionising radiation	kBq U-235 eq	3.17E-01	2.98E-01	1.49E-02	4.69E-03	-5.55E-02
Land use	Pt	1.79E+02	1.57E+02	1.71E+01	5.19E+00	-7.43E-01
Ozone depletion	kg CFC11 eq	1.13E-07	9.15E-08	1.63E-08	5.12E-09	-2.33E-09
Photochemical ozone formation	kg NMVOC eq	2.35E-02	1.54E-02	6.05E-03	2.06E-03	-1.19E-03
Resource use, fossils	MJ	8.24E+01	5.98E+01	1.73E+01	5.24E+00	-5.30E+00
Resource use, minerals and metals	kg Sb eq	1.84E-05	1.41E-05	3.34E-06	1.01E-06	-1.56E-07
Water use	m3 depriv.	1.68E+00	1.60E+00	9.01E-02	-1.02E-02	-5.43E-02

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN15804+A2: Resource Use

Parameter		Unit	Total	A1-A3	A4	A5	D
PERE	Use of renwable primary energy excluding renewable primary energy resources used as raw materials	MJ	3.05E+01	3.11E+01	2.39E-01	7.74E-02	-7.04E-01
PERM	Use of renewable primary energy resources used as raw materials	MJ	4.37E+01	4.37E+01	0.00E+00	0.00E+00	0.00E+00
PERT	Total use of renewable primary energy resources	MJ	7.42E+01	7.49E+01	2.39E-01	7.74E-02	-7.04E-01
PENRE	Use of non-renwable primary energy excluding renewable primary energy resources used as raw materials	MJ	8.28E+01	8.28E+01	1.84E+01	5.58E+00	-5.64E+00
PENRM	Use of non-renewable primary energy resources used as raw materials	MJ	1.04E+00	1.04E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	Total use of non-renewable primary energy resources	MJ	8.38E+01	8.39E+01	1.84E+01	5.58E+00	-5.64E+00
SM	Use of secondary material	kg	2.39E+00	2.39E+00	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of non-renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Net use of fresh water	m^3	1.62E+00	1.69E+00	9.07E-02	-1.01E-02	-5.56E-02

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

EN15804+A2: Waste Categories and Output Flows

Parameter		Unit	Total	A1-A3	A4	A5	D
HWD	Hazardous waste disposed	kg	3.08E-02	2.59E-02	5.21E-04	9.70E-03	-4.86E-03
NHWD	Non-hazardous waste disposed	kg	3.00E+00	2.17E+00	1.45E+00	8.42E-01	-1.02E-02
RWD	Radioactive waste disposed	kg	6.68E-05	7.92E-05	3.65E-06	1.15E-06	-1.35E-05
CRU	Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	Materials for recycling	kg	1.86E+00	0.00E+00	0.00E+00	1.86E+00	0.00E+00
MER	Materials for energy recovery	kg	4.16E-01	0.00E+00	0.00E+00	4.16E-01	0.00E+00
EE	Exported energy	MJ	7.39E+00	0.00E+00	0.00E+00	7.39E+00	0.00E+00

*Stages B1 through B7 and C1 have not been considered and reported as they are not applicable in this LCA study

LCA sum results calculation guidance

The LCA results of MHD cables (per meter), MHD connector kits (per piece), MHD packaging sizes (per piece) have been demonstrated above, respectively. The LCA sum results of MHD products can be easily calculated based on the guidance below. The product description indicates the cable type, cable length and connector types and numbers, which can be found in "**Ordering Tree**" on page 5. The packaging size is also decided by the cable length. The table below summarizes all the variations in MHD products for sum calculation. The LCA sum results can be calculated as:

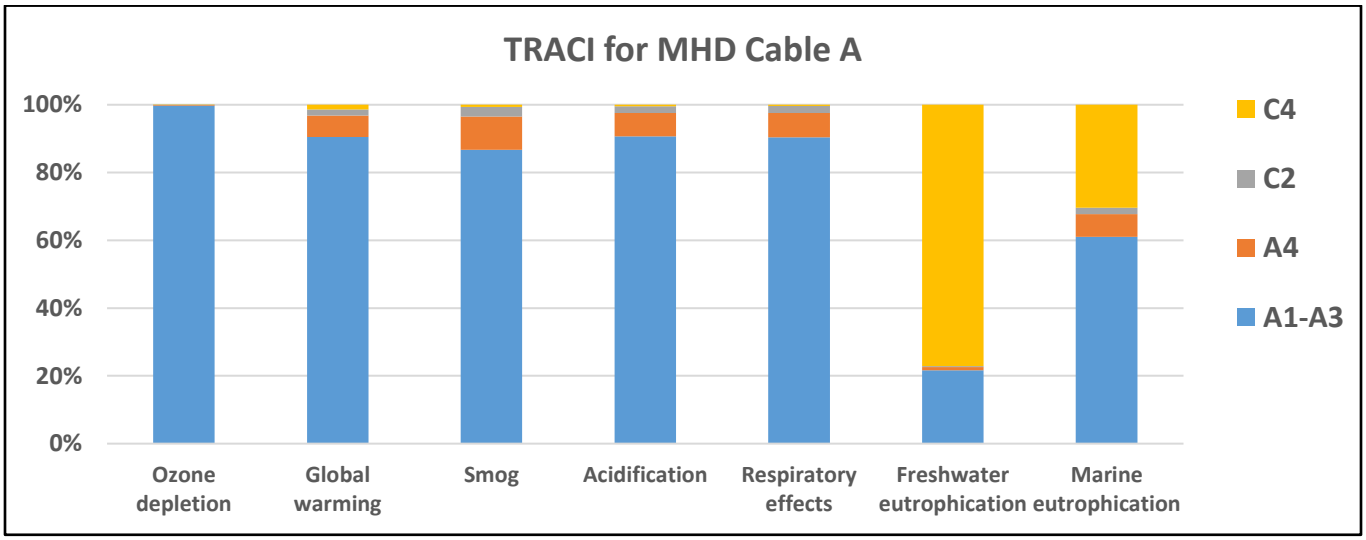
$$\sum LCA\ result\ (MHD\ product) = LCA\ result\ (MHD\ cable) * (L + 1.98) + LCA\ result\ (MHD\ connector) * number + LCA\ result\ (MHD\ packaging)$$

MHD product types	Cable type	Cable length for calculation*	Connector kit	Packaging
MHD-F0DA	A	L+1.98	F*1	small (L ≤200m), and large (L >200m)
MHD-FFDA	A	L+1.98	F*2	
MHD-F0DH	H	L+1.98	F*1	
MHD-FFDH	H	L+1.98	F*2	
MHD-M0DA	A	L+1.98	M*1	
MHD-MMDA	A	L+1.98	M*2	
MHD-M0DH	H	L+1.98	M*1	
MHD-MMDH	H	L+1.98	M*2	
MHD-FMDH	H	L+1.98	F*1, M*1	
MHD-MFDA	A	L+1.98	F*1, M*1	

*L is the cable length in meter; feet to meter conversion is needed for the length in feet mentioned in product description.

LCA Interpretation

Based on LCA sum calculation formular and the LCA results of MHD cable, connector and packaging respectively, the LCA sum result of MHD product mainly depends on the contribution of the cable, especially with the increasing of the cable length. Therefore, the LCA interpretation will be focused on cable. The figure below shows the TRACI results of MHD cable A, indicating stages A1-A3 are the dominant contributors across most environmental impact categories, except Freshwater eutrophication. This is due to the upstream production of raw materials used in the product, along with electricity usage in the manufacturing of parts. Only for Freshwater eutrophication, stage C4 is particularly significant due to the 100% landfill of the cable at the end of life. This highlights the importance of targeting the stages A1-A3 to effectively reduce global warming potential and most other environmental impacts. In addition, to develop better recycling/reuse strategy of cable components to replace the landfill treatment.



Additional Environmental Information

Environmental and Health During Manufacturing

CommScope values employees' health, safety and well-being. To this end, we maintain a robust company-wide environment, health and safety (EHS) management system. This is an integrated program based on the requirements of the International Standards of ISO45001 and ISO14001. To support this integrated EHS management system, CommScope utilizes a web-based platform, the BSI Entropy™ tool. This tool supports the management of our EHS processes and operations at the corporate and facility level. All EHS management system records (policies, procedures, method statements, health and safety risk assessments, environmental aspect/impact assessments, legal requirements, permits, training, internal and external audits, incidents and implemented CAPA, KPIs, and other records related to EHS) are maintained and managed in Entropy. In addition, 90% of CommScope manufacturing facilities are certified according to the ISO14001 and ISO45001 standards. Our vision and commitments are detailed in our EHS Policy.

CommScope understands the need to address the environmental impacts of its products and services. CommScope engages product development teams in designing innovative and more sustainable solutions across a product's life cycle—from design and manufacturing to product use and end of life.

CommScope is committed to demonstrating a high standard of global product compliance practices. Through this commitment, we actively monitor global environmental trends and emerging regulatory requirements that may affect our products, operations, supply chain, and customer base. We are committed to be compliant with all applicable environmental product related legal and other requirements. To achieve this, we have a global organization comprising environmental specialists, engineers, and product compliance experts who are constantly ensuring our compliance status is maintained. We manage our compliance using a cross-functional approach with our engineers, designers, quality organization, supply chain organization, and production.

CommScope is committed to upholding the human rights of its employees. To ensure our employees are treated with dignity and respect, we follow a well-established Code of Ethics and Business Conduct and Labor Policy that align with recognized standards and guidelines from the International Labor Organization, the United Nations Global Compact, the UN Universal Declaration of Human Rights, SA8000 and applicable laws.

Environmental and Health During Installation

There is no harmful emissive potential. No damage to health or impairment is expected under normal use corresponding to the intended use of the product.

Extraordinary Effects

Fire

No extraordinary effects to the environment can be anticipated during exposure to fire.

Water

Contains no substances that have any impact on water in case of flood.

Mechanical Destruction

No danger to the environment can be anticipated during mechanical destruction.

Delayed Emissions

Global warming potential is calculated using the CML- IA Baseline 3.11, TRACI 2.2 and EN15804+A2 (adapted) 1.03 impact assessment methodologies. Delayed emissions are not considered.

Environmental Activities and Certifications

Our Sustainability Report details CommScope's efforts to operate the business ethically and with integrity; protect the environment; maintain the health, safety and well-being of our workforce; and support the communities in which we operate. To learn more, view our comprehensive Sustainability Report at https://www.commscope.com/corporate-responsibility-and-sustainability/.

CommScope maintains a variety of certifications based on the widely accepted industry standards:

- Quality Management System certification (ISO9001/TL9000)
- Environmental Management System certification (ISO14001)
- Health and Safety Management System certification (ISO45001)

These certificates can be downloaded from our company website:

https://www.commscope.com/corporate-responsibility-and-sustainability/philosophy/#certifications

Product sustainability certifications including EPDs and Health Product Declarations (HPDs) can be downloaded from our company website:

https://www.commscope.com/corporate-responsibility-and-sustainability/product-sustainability/certifications/

Further Information

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References

-	PCR	PEP ecopassport Program: Product Category Rules for Electrical, Electronic and HVAC-R Products, v4.0, 2021.
-	PSR	PEP ecopassport Program Product Specific Rules specific for Wires, Cables and Accessories, v4.0, 2022
-	LCA tool & Databases	Simapro Craft version 10.2.0.0 of LCA software & ecoinvent 3.11, Industry data 2.0 databases.
-	ISO 14025	ISO 14025:2011-10, Environmental labels and declarations — Type III environmental declarations — Principles and procedures.
-	ISO 14040	ISO 14040:2009-11, Environmental management — Life cycle assessment — Principles and framework.
-	ISO 14044	ISO 14044:2006-10, Environmental management — Life cycle assessment — Requirements and guidelines.
-	EN 15804 + A2	EN 15804:2012+A2:2019/AC:2021 - Sustainability of construction works - Environmental Product Declarations - Core rules for the product category of construction products
-	ASTM 2020	ASTM International General Program Instructions v8.0, April 29, 2020
-	Characterization Method	IPCC. 2021. Climate Change 2021. The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson, delmotte, V., et al] Cambridge University Press, Cambridge, UK and New York, NY, USA (http://www.ipcc.ch/report/ar6/wg1/).
-	Characterization Method	Hauschild M.Z., & Wenzel H. Environmental Assessment of Products. Springer, US, Vol. 2, 1998.
-	Characterization Method	Heijungs R., Guinée J.B., Huppes G., Lankreijer R.M., Udo de Haes H.A., Wegener Sleeswijk A. Environmental Life Cycle Assessment of Products: Guide and Backgrounds. CML. Leiden University, Leiden.
-	Characterization Method	Jenkin M.E., & Hayman G.D. Photochemical ozone creation potentials for oxygenated volatile organic compounds: sensitivity to variations in kinetic and mechanistic parameters. Atmospheric Environment. 1999, 33 (8) pp. 1275-1293.
-	Characterization Method	WMO. 1999. Scientific Assessment of Ozone Depletion: 1998, World Meteorological Organization Global Ozone Research and Monitoring Project - Report No. 44, WMO, Geneva.
-	Characterization Method	Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers- version 1.2, January 2017.

Contact Information

Study Commissioner

For more information, visit our website at https://www.commscope.com/

- Contact customer support for product and technical questions at https://www.commscope.com/contact-us/
- Contact product compliance at productsustainability@commscope.com
- Contact Corporate Responsibility & Sustainability team for sustainability questions at sustainability@commscope.com

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