



ENVIRONMENTAL PRODUCT DECLARATION

PRODUCT NAME:

Self-protected voltage
transformer VTE
GSCT003/1

PRODUCTION SITE:

Via Rinaudo snc, Piano
Tavola Belpasso, 95032,
(CT)

in compliance with ISO 14025 and EN 50693

Program operator	EPDItaly
Publisher	EPDItaly
Declaration number	EPD-COL-MCM-GSCT003-1_2023_REV. 1.0
Registration number	EPDITALY1263
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Valid to	22/07/2031



1. GENERAL INFORMATION

www.epditaly.it

GENERAL INFORMATION

EPD OWNER	
Company name	Col Giovanni Paolo S.p.A. (www.colgp.it)
Registered office	Via Antonio Chiribiri, 1, 10028 Trofarello (TO)
Company contact for information on the EPD	Giuseppe GITTO, Vice-Operation Manager, COL GROUP – MCM Divisione Stampaggio e-mail: giuseppe.gitto@itransformersmcm.com
Technical support	Emmanuel NYERO, Environmental Engineer, TW-TeamWare SRL e-mail: emmanuel.nyero@teamware.it

PROGRAM OPERATOR	
EPDItaly	EPDItaly – info@epditaly.it Via Gaetano De Castillia n° 10 - 20124 Milan, Italy

EPD INFORMATION	
Product Name(s)	Self-protected voltage transformer VTE GSCT003/1
Production site(s)	COL GROUP – MCM <i>Divisione Stampaggio</i> Via Rinaudo snc, Piano Tavola Belpasso, 95032, (CT)
Brief description and technical information of the product(s)	The Self-protected voltage transformer VTE GSCT003/1 is a prefabricated medium voltage device (up to 24 kV) for powering the remote-control peripheral unit (UP) of the DY807/2 pole-mounted IMS and other low voltage components with a maximum absorption of 800VA. The technical specifications of the product are stated in Table 1 on Page 4 of 13 of this EPD report
Scope of application of the product(s)	The Self-protected voltage transformer VTE GSCT003/1 is manufactured in Italy by COL GROUP – MCM Divisione Stampaggio (Catania) in 2023, in accordance with the ENEL global standards GSCT003 Rev. 02 of 25/11/2016, for

	use within the geographical scope of Italy
Type of EPD	Product-specific EPD based on a qualified TOOL "LCA-COL GROUP Tool 3.0" of 29/06/2026.
Product reference standards (if any)	ENEL global standards GSCT003 Rev. 02 of 25/11/2016
CPC Code (number) https://unstats.un.org/unsd/classifications/elec	4621 "Electricity distribution or control apparatus"

VERIFICATION INFORMATION	
PCR – Product Category Rules (title, version, publication or update date)	Core PCR: EPDIItaly007 – PCR for Electronic and Electrical Products and Systems, REV 3.2, Issue date 10/12/2025
EPDIItaly Regulation (version, publication date or update)	Regulations of the EPDIItaly Programme. Revision 7.1. Issue date 05/09/2025
LCA Project Report	The LCA Project Report submitted consists of the Input Resume, Plant Resume, EPD Results and R&D Results for the Self-protected voltage transformer VTE GSCT003/1 automatically generated on 13/07/2026 using the LCA TOOL "LCA-COL GROUP Tool 3.0" of 29/06/2026.
Independent verification statement	This declaration has been developed in accordance with the regulations of EPDIItaly; further information and the same regulations are available at: www.epditaly.it Independent verification of the declaration and data carried out in accordance with ISO 14025: 2010 ☐ Internal ☒ External Third party verification done by: ICMQ S.p.A. (www.icmq.it), Via Gaetano De Castillia, 10, 20124 Milano (MI) – Italia. Accredited by ACCREDIA, Accreditation number 00064 Validation and Verification REV. 007, review date 28/01/2026
Comparability statement	EPDs published within the same product category though originating from different programs may not be comparable. Full conformance with a PCR allows EPD comparability only when all stages of a life cycle have been considered. However, variations and

	deviations are possible.
Responsibility statement	The EPD owner relieves EPDIItaly from any non-compliance with the environmental legislations. The holder of the declaration will be responsible or liable for the supporting information and evidence. EPDIItaly disclaims any liability regarding the manufacturer's information, data, and results provided by the EPD Owner for the life cycle assessment.

MORE INFORMATION	
Reference documents	EN ISO 14025:2010, Environmental labels and declarations – Type III environmental declarations – Principles and procedures EN 50693:2019 - Product category rules for life cycle assessments of electronic and electrical products and systems.

2. THE COMPANY

Col Giovanni Paolo S.p.A. (COL GROUP) is a leading Italian company owned by Oaktree Capital Management, L.P. in the fast-growing global energy transmission and distribution market. It specializes in the development and production of critical components and advanced solutions for smart grid applications in medium and high voltage electrical infrastructure with sustainability at the heart of all its activities. COL GROUP has been working to support the sustainable future of our planet and the long-term success of its customers as well as the company's own business. Testament to that are the ambitions embodied in two of COL GROUP's Strategy 2030 goals i.e., to lead with low-carbon circular economy solutions, and to enhance sustainability across the value chain. The company possesses numerous certifications according to international standards, among which are UNI EN ISO 9001:2015, UNI EN ISO 14001:2015, UNI ISO 45001:2018, UNI EN ISO 50001:2018, and ISO 27001: 2013. Established in 1920, COL GROUP has amassed over 100 years of valuable experience in the electro-technical and plant engineering fields, and it is one of the few authorized suppliers for major utility companies in Europe, Middle East, South America, and Southeast Asia. The company has developed a highly innovative technology portfolio in medium voltage switchgear, substation automation, battery control systems and several other smart grid and high-voltage applications in collaboration with other dominant global utilities and industrial players. Over the years, COL GROUP has registered significant growth through the acquisition of several companies in the electronic, energy systems, railway, and electromechanical sectors. The ever-expanding

company now has contemporary production sites in Torino, Catania, Milano, Cremona, and most recently in Bergamo, with over 500 highly skilled, and efficient employees led by a solid management team.

3. THE PRODUCT

The self-protected voltage transformer VTE GSCT003/1 as seen from the photograph on the cover page, is a prefabricated medium voltage device (up to 24 kV) for powering the remote-control peripheral unit (UP) of the DY807/2 pole-mounted IMS and other low voltage components with a maximum absorption of 800VA. It consists of a medium voltage transformer that acts as a power supply that takes primary voltage from the grid and powers the UP from the secondary side of the voltage transformer. The transformer is equipped with fuses in series with the primary connections A and B. The primary poles A and B must be connected with Elastimold type connections., and **table 1** summarizes the main characteristics of the self-protected voltage transformer VTE GSCT003/1 manufactured by COL GROUP – MCM *Divisione Stampaggio* in accordance with the ENEL global standards GSCT003 Rev. 02 of 25/11/2016, for use within the geographical scope of Italy.

Table 1. Main characteristics of the self-protected voltage transformer VTE GSCT003/1

GLOBAL TYPE	GSCT003/1
Rated transformation ratio (kV/kV)	20-15-13,2-10
	0,1
Insulation level (kV)	24/50/125
Rated Frequency (Hz)	50 - 60 *
Rated power / Class / Thermal power	400 VA / 3 / 800 VA
Voltage Factor	1,2 Continuous
Type of installation	Outdoor according to IEC 61869-1/3
Degree of protection (IEC 60529)	IP 65
Type of internal insulation	Synthetic poliuretanic resin (*)
Insulating Thermal class	B
Primary Terminals	Plug-in outside cone type according to EN 50181
	Type A - 250 A
Maximum overall dimensions (mm)	450 L x 250 W x 450 H
Maximum weight (kg)	90
Altitude (m)	1000 (up to 2700 for specific application) (**)
Ambient air temperature	- 40°C + 50°C **
Relative humidity	98%
Pollution level (IEC TS 60815)	Very High (IV)

(*) With elongation at break according to ISO/R527 between 20-50%

(**) Extended level to take into account the different situation of the Enel Group DSOs

Material composition

The declaration on the content of materials for the Self-protected voltage transformer VTE GSCT003/1 was done by the manufacturer in accordance with EN IEC 62474. The unique ID and percentage mass

share of all the materials and declarable substances contained in the fully assembled product plus its packaging are reported in **table 2**.

Table 2. Material composition for the fully assembled self-protected voltage transformer VTE GSCT003/1 plus its packaging

Material class name	ID	Mass share
Stainless steel	M-100	9,9994%
Other ferrous alloys, non-stainless steels	M-119	26,2256%
Aluminium and its alloys	M-120	0,1718%
Copper and its alloys	M-121	8,1299%
Other inorganic materials	M-199	0,4307%
PolyCarbonate (PC)	M-204	0,5631%
PolyEthyleneTerephthalate (PET)	M-259	0,4651%
Epoxy resin (EP)	M-302	14,4247%
Wood	M-340	12,0584%
Paper	M-341	0,0363%
Other organic materials	M-399	27,4951%

Reference service life

The reference service life (RSL) of the product was defined as 10 years, the rationale was to double the product guarantee period (5 years), assuming continuous operation of the product with no maintenance.

4. SCOPE AND TYPE OF EPD

This is a product-specific EPD for the Self-protected voltage transformer VTE GSCT003/1 for outdoor installations produced at the COL GROUP production site in Catania i.e., COL GROUP – MCM *Divisione Stampaggio* (MCM) in compliance with ISO 14025 and EN 50693 under the EPDItaly program regulations. The study is based on a cradle to grave life cycle assessment (LCA) methodology in accordance with the ISO 14040 and 14044 standards. The geographical and temporal scope for the data used in this study are summarized in **table 3** basing on the current global level of technology. The LCA results were automatically generated using the excel-based LCA tool “LCA-COL GROUP Tool 3.0” of 29/06/2026., and they were intended for internal R&D, as well as external B2B and B2C communication. In effect, these results facilitated judicious decisions through comparison of the environmental attributes of products that have similar functional requirements.

Table 3. The spatio-temporal scope of the LCA study considering the current global level of technology

Representativeness	Scope
Geographical	Italy
Timeframe	2023

Functional unit

The functional unit (FU) was a fully assembled, tested, and packaged self-protected voltage transformer VTE GSCT003/1 with all the specifications in **table 1**, distributed to sites within Italy, installed outdoors, during a RSL of 10 years, operating nonstop.

System boundary

The system boundary implemented in this LCA covered the entire lifecycle of the product i.e., from cradle to grave as shown in **table 4** with the life cycle stages for all the major activities involved, grouped into three distinct modules i.e., upstream, core, and downstream with reference to EN 50693. The product life cycle and inventory analysis describing all the activities, simplifying assumptions, and modelling scenarios used in the LCA has been exhaustively conducted under **section 5** of this document.

Table 4. The life cycle stages and modules declared in the system boundary

Manufacturing		Distribution	Installation	Use	End of life
Upstream	Core	Downstream			
✓	✓	✓	✓	✓	✓

✓ = Lifecycle stages and modules declared in the LCA

Cut-off criteria

The mandatory cut-off for mass and energy flows in this LCA study was set at 1% as defined and modelled in the LCA TOOL “LCA-COL GROUP Tool 3.0” of 29/06/2026. All the material and energy flows within the system boundary known to have potential to cause significant impacts on the LCA results have been accounted for. However, cut-off was applied to the potential impacts that could have resulted from production and disposal of the packaging materials of all the semi-finished products included in the BOMs (e.g., sheets, electronics, screws, etc.) transported to MCM for processing and later assembling of the final product as it was assumed that such impacts were negligible. Furthermore, a cut-off was similarly applied to the impacts associated with the skilled labour required during installation before use and dismantling of the product at its end-of-life. Potential impacts that could have arisen from ordinary or extraordinary maintenance were also ignored since the product was assumed to be maintenance free for the entire expected service life.

Allocation rules

The allocation criteria adopted for the LCA model was guided by the PCR of the reference product. Since many other products are produced at the reference site, the “multi-output” allocation rule was applied to calculate the environmental impact of the product being studied. The primary data relating to waste generation, water, and energy consumption i.e., electricity (petrol and natural gas were not consumed at the reference production site in the reference year) used was provided for the reference year, and these were allocated based on economic value (revenue generated in millions of euros) using the total annual revenue generated from the reference production site of the company, the annual revenue from selling the product being studied, and the number of the studied product sold in the reference year, to get the allocation factor.

Data quality

The most recent and verifiable site-specific data collected in 2023 was used in this study, and the International System of Units (SI) was adopted while recording the data. The initial primary data forming the basis for the LCA were the production specifications i.e., BOMs, mechanical drawings, and technical information from the client provided by MCM to its external suppliers for each sub-assembly of the final product, and these were analysed using Microsoft excel. The weight of the heavier structural components was calculated using Solid Edge software. For the lighter components, they were manually weighed on the weighing scale and recorded. Additional primary data used included the water and energy (electricity) consumption for the core activities at MCM premises during the reference year, and these were downloaded from the company's reference production site account on the website of the service providers. In addition to that, the distances from external suppliers and subcontractors to MCM were evaluated with the aid of Google Maps. In instances where the materials were processed along the transport route and the transported weight changed, the transport effort (kg.km) and the gross weight (kg) were used to compute the weighted distances. The same technique was applied to determine the distributing distance from MCM to the reference installation sites in the various regions within Italy, and justification was provided for all the simplifying assumptions stated. In terms of secondary data, databases from legitimate sources already embedded in the LCA TOOL "LCA-COL GROUP Tool 3.0" of 29/06/2026 were used to obtain generic data for some up- and down-stream processes in the life cycle of the product.

5. PRODUCT LIFE CYCLE AND INVENTORY ANALYSIS

The life cycle inventory (LCI) lists and quantifies all the flows entering and leaving all the declared life cycle stages of the product within the system boundary considered in relation to the scope of the study. The reference flow for the LCI is 1 piece of a fully assembled and packaged Self-protected voltage transformer VTE GSCT003/1 weighing **110,297 kg** altogether.

Manufacturing

This manufacturing stage covers all the activities spanning across the upstream and core modules. The supply chain processes commence with the extraction of raw materials to produce sub-assemblies comprising of electronic and structural components (including the metal enclosure made of stainless steel AISI 304) to form the final VTE GSCT003/1, and the packaging materials for the final product. The production of these various components was done by external suppliers on their manufacturing sites in accordance with the ENEL global standard GSCT003 Rev. 02 of 25/11/2016., and they were assumed to be transported by road in a 16 - 32 tonne EURO5 lorry to MCM. The production process of self-protected transformers code GSC003/1 is divided into four fundamental steps: 1. Preparation of the active part, 2. Moulding of the internal TV, 3. Preparation of the metal case, and 4. Casting of the armoured TV. The first phase involves the construction of the active part of the TV (i.e., the internal part, the winding). This is prepared by one of our subcontractors (ElektraGVG). They receive directly some components made by various suppliers based on our design/drawing, as well as the copper wire, which is stored in our warehouses. Once ready, the winding is shipped to our warehouses for the next molding phase. After

drying in an oven, the molding process proceeds with hot molding by injecting epoxy resin under pressure. The resulting semi-finished product is heat treated to complete the material's polymerization process. Before casting, it is electrically tested. The third step involves preparing the metal casing. The sheet metal used to make the components is processed by two subcontractors: COL Giovanni Paolo, who manages the sheet metal warehouse on our behalf and handles the cutting phase, and subcontractor Anfuso Antonino, who receives the cut sheet metal directly from COL and creates the metal casing. Once the casing is returned to the MCM, the transformer is mounted inside, and the connections are made between the primary poles and the bushings. Protective fuses are inserted between the two objects (the pole and the bushing). The box is closed and filled by vacuum casting with polyurethane resin. Once the post-heat treatment period of the casting material has elapsed, the armoured TV is subjected to all the tests (electrical and mechanical) required by the reference specification. The fully assembled product with a name plate showing all the important data, was then packaged by placing it on a wooden pallet, it must be noted that each wooden pallet accommodated a unit of the self-protected voltage transformer VTE GSCT003/1 during distribution. All the wastes generated on-site from these activities (except packaging) are documented by category in the production site register and declared annually in the MUD "*Modello Unico di Dichiarazione ambientale*" following the applicable regulations and deadlines. Furthermore, these wastes were assumed to be transported periodically in a 16 - 32 tonne ACI mix lorry to a waste treatment plant located **50 km** away.

Distribution

From this point forth, all the activities fall under the downstream module. The fully assembled and packaged Self-protected voltage transformer VTE GSCT003/1 is loaded onto a 16 - 32 tonne EURO5 lorry for final delivery to the various installation sites in Italy. Just one product was distributed and installed during the reference year and the distribution distance (in kilometres) from MCM to the client considering the fastest route was determined to be **1153 km** from Google Maps.

Installation

Upon arrival at the client's location, the product is unloaded, carefully removed from its packaging, and installed by skilled technicians. The product is equipped with stainless steel brackets integral with the body of the transformer, as required by ENEL specification GSCS006 Rev. 01 of 31/05/2016. These brackets allow the product to be suspended from the IMS pole or the cubicle in which it is intended to be installed. It is immediately after this process that the wooden pallet is returned for reuse in the next delivery by MCM to control packaging waste. At the end of life of the packaging materials, they are assumed to be transported in a 7 - 16 tonne EURO5 lorry to a waste treatment plant **50 km** away.

Use

The perfectly installed product consumes **140,072 kWh** of electricity, E_{use} during its **RSL** of 10 years, and this was computed using **Equation 1** with **8760** representing the number of hours in a year; and **1000** is the conversion factor that allows the energy consumed in kWh over the product's service life to be expressed. The nominal power of the device (in Watts), P_{use} was obtained by summing both the losses of the iron (**0,83 W**) and the copper (**0,769 W**) during use phase of the product.

$$E_{use}[\text{kWh}] = \frac{P_{use} * 8760 * \text{RSL}}{1000} \quad (1)$$

An additional environmental information is that during the installation and use stages, the product does not emit any pollutants or substances which are dangerous for the environment and health. Furthermore, the product had no batteries.

End of life

At the end of the RSL of the product, the dismantling process and separation of the product components is done following guidelines in the manual given by the manufacturer, together with all the necessary laws in the country of reference, and the resulting wastes were assumed to be transported using a 7,5 - 16 tonne EURO5 lorry to an authorized waste treatment plant located **50 km** away from the installation site. The hazardous wastes in this case i.e., *Adesivi e sigillanti di scarto* were assumed to be disposed in the landfill whereas the other waste materials from the products were recycled.

6. LCA RESULTS

The environmental performance results of the product for the different lifecycle stages per FU accounting for all the mandatory environmental impact indicators (**Table 5**) and descriptive parameters for resource use (**Table 6**) and waste production (**Table 7**) calculated as per Core PCR: EPDItaly007 and EN 50693 were automatically generated using the LCA TOOL “LCA-COL GROUP Tool 3.0” of 29/06/2026.

Environmental impacts for the Self-protected voltage transformer VTE GSCT003/1

Table 5. LCA results for the environmental impact indicators

Impact categories	Unit of measurement	Manufacturing	Distribution	Installation	Use	End of life	TOTAL
GWP-total	kg CO ₂ eq.	6,67E+02	1,95E+01	2,30E+01	4,92E+01	9,29E+01	8,52E+02
GWP-fossil	kg CO ₂ eq.	6,86E+02	1,95E+01	1,96E-01	4,91E+01	9,29E+01	8,48E+02
GWP-biogenic	kg CO ₂ eq.	-1,97E+01	6,13E-04	2,28E+01	1,28E-01	8,87E-03	3,21E+00
GWP-luluc	kg CO ₂ eq.	5,73E-01	3,08E-04	3,08E-05	3,37E-03	1,17E-02	5,88E-01
ODP	kg CFC-11 eq.	2,18E-05	4,43E-07	4,20E-09	1,19E-06	7,86E-08	2,36E-05
AP	mol H ⁺ eq.	7,31E+00	5,03E-02	1,42E-03	1,50E-01	4,95E-02	7,56E+00
EP-freshwater	kg P eq.	8,78E-02	1,20E-05	1,12E-06	1,23E-03	2,45E-04	8,93E-02
EP-marine	kg N eq.	7,58E-01	1,92E-02	6,96E-04	2,54E-02	1,83E-02	8,21E-01
EP-terrestrial	mol N eq.	8,51E+00	2,10E-01	7,02E-03	2,88E-01	1,90E-01	9,21E+00
POCP	kg NMVOC eq.	3,03E+00	8,33E-02	2,15E-03	1,22E-01	5,12E-02	3,29E+00
ADP-min & met*	kg Sb eq.	7,83E-02	5,08E-07	2,84E-08	7,27E-07	9,79E-07	7,83E-02
ADP-fossil*	MJ	1,09E+04	2,59E+02	2,88E+00	8,38E+02	9,26E+01	1,21E+04
WDP*	m ³ eq. deprived	3,05E+02	8,47E-02	0,00E+00	2,46E+01	1,89E+00	3,31E+02

Caption: **GWP-total** = Global Warming Potential – total; **GWP-fossil** = Global Warming Potential – fossil; **GWP-biogenic** = Global Warming Potential – biogenic; **GWP-luluc** = Global Warming Potential – land use and land use change; **ODP** = Ozone Depletion Potential; **AP** = Acidification Potential; **EP-freshwater** = Eutrophication potential, aquatic freshwater; **EP-marine** = Eutrophication potential, marine; **EP-terrestrial** = Eutrophication potential, terrestrial; **POCP** = Photochemical ozone formation; **ADP-min & met** = Depletion of abiotic resources – minerals and metals; **ADP-fossil** = Depletion of abiotic resources – fossil fuels; **WDP** = Water deprivation potential

* The LCA results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or there is limited experienced with the indicator

Resource use for the Self-protected voltage transformer VTE GSCT003/1

Table 6. LCA results for the environmental parameters describing resource use

Parameters	Unit of measurement	Manufacturing	Distribution	Installation	Use	End of life	TOTAL
PERE	MJ	9,58E+02	6,37E-01	1,68E-02	2,87E+02	7,62E+00	1,25E+03
PERM	MJ	2,10E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,10E+02
PERT	MJ	1,17E+03	6,37E-01	1,68E-02	2,87E+02	7,62E+00	1,46E+03
PENRE	MJ	8,83E+03	2,59E+02	2,88E+00	8,38E+02	9,26E+01	1,00E+04
PENRM	MJ	2,10E+03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,10E+03
PENRT	MJ	1,09E+04	2,59E+02	2,88E+00	8,38E+02	9,26E+01	1,21E+04
MS	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	8,10E+00	5,01E-03	0,00E+00	6,87E-01	6,94E-02	8,86E+00

Caption: **PERE** = Use of renewable primary energy excluding renewable primary energy resources used as raw material; **PERM** = Use of renewable primary energy resources used as raw material; **PERT** = Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials); **PENRE** = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw material; **PENRM** = Use of non-renewable primary energy resources used as raw material; **PENRT** = Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials); **MS** = Use of secondary materials; **RSF** = Use of renewable secondary fuels; **NRSF** = Use of non-renewable secondary fuels; **FW** = Net use of fresh water

Waste production for the Self-protected voltage transformer VTE GSCT003/1

Table 7. LCA results for the environmental parameters describing waste production

Parameters	Unit of measurement	Manufacturing	Distribution	Installation	Use	End of life	TOTAL
HWD	kg	1,11E+02	4,63E+00	2,18E-02	1,96E-01	1,76E+00	1,17E+02
NHWD	kg	1,52E+03	3,71E+02	2,26E+01	3,48E+00	1,89E+03	3,80E+03
RWD	kg	3,63E-02	1,56E-02	3,02E-07	1,90E-03	9,14E-04	5,48E-02
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	6,05E+01	0,00E+00	4,02E+00	0,00E+00	1,84E+03	1,90E+03
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,18E+03	1,18E+03
ETE	MJ	0,00E+00	0,00E+00	6,59E+01	0,00E+00	0,00E+00	6,59E+01
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Caption: **HWD** = Hazardous waste disposed; **NHWD** = Non-hazardous waste disposed; **RWD** = Radioactive waste disposed; **CRU** = Components for reuse; **MFR** = Material for recycling; **MER** = Materials for energy recovery; **ETE** = Exported thermal energy; **EEE** = Exported electricity energy

7. BIBLIOGRAPHY

1. Col Giovanni Paolo S.p.A. website, accessed 14 April 2026, <<https://colgp.it/en/>>
2. Core PCR: EPDItaly007 – PCR for Electronic and Electrical Products and Systems, REV 3.2, Issue date 10/12/2025
3. EN 50693:2019-08 Product category rules for life cycle assessments of electronic and electrical products and systems
4. EN IEC 62474:2019 Material declaration for products of and for the electrotechnical industry
5. ENEL global standards GSCT003 Rev. 02 of 25/11/2016
6. ISO 14025:2010 Environmental labels and declarations – Type III environmental declarations – Principles and procedures
7. ISO 14040:2006 Environmental management - Life cycle assessment - Principles and framework
8. ISO 14044:2006 Environmental management - Life cycle assessment - Requirements and guidelines
9. Regulations of the EPDItaly Programme. Revision 7.1. Issue date 05/09/2025