SENTINEL HOLDING
INSTITUT

SHI PRODUCT PASSPORT

Find products. Certify buildings.

SHI Product Passport No.:

15538-10-1000

SENTRON ECPD

Product group: Switch program - Electronic installations

SIEMENS

Siemens AG
Werner-von-Siemens-Straße 1
80333 München

Product qualities:

- QNG Qualitätssiegel Nachhaltiges Gebäude ✓
- DGNB NEW CONSTRUCTION 2023 ✓
- DGNB NEW CONSTRUCTION 2018 ✓
- BNB-BN NEUBAU V2015 ✓
- BREEAM DE NEUBAU 2018 ✓

CERTIFIED SUSTAINABLE PRODUCT
SHI PRODUCT PASSPORT
SENTINEL HOLDING INSTITUT
www.sentinel-holding.eu

Köttner

Helmut Köttner
Scientific Director
Freiburg, 28 November 2025

SENTINEL HOLDING
INSTITUT

Product:
SENTRON ECPD

SHI Product Passport no.:
15538-10-1000

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Contents

The SHI Database is the first and only database for construction products whose comprehensive processes and data accuracy are regularly verified by the independent auditing company SGS-TÜV Saar

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SENTINEL HOLDING
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Product:
SENTRON ECPD

SHI Product Passport no.:
15538-10-1000

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QNG - Qualitätssiegel Nachhaltiges Gebäude

The Qualitätssiegel Nachhaltiges Gebäude (Quality Seal for Sustainable Buildings), developed by the German Federal Ministry for Housing, Urban Development and Building (BMWSB), defines requirements for the ecological, socio-cultural, and economic quality of buildings. The Sentinel Holding Institut evaluates construction products in accordance with QNG requirements for certification and awards the QNG ready label. Compliance with the QNG standard is a prerequisite for eligibility for the KfW funding programme. For certain product groups, the QNG currently has no specific requirements defined. Although classified as not assessment-relevant, these products remain suitable for QNG-certified projects.

Criteria	Pos. / product group	Considered substances	QNG assessment
3.1.3 Schadstoffvermeidung in Baumaterialien	not applicable	not applicable	QNG ready - Not relevant for assessment

Product:
SENTRON ECPD

SHI Product Passport no.:
15538-10-1000

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DGNB New Construction 2023

The DGNB System (German Sustainable Building Council) assesses the sustainability of various types of buildings. It can be applied to both large-scale private and commercial projects as well as smaller residential buildings. The 2023 version sets high standards for ecological, economic, socio-cultural, and functional aspects throughout the entire life cycle of a building.

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 03.05.2024 (3rd edition)			Not relevant for assessment

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 29.05.2025 (4th edition)			Not relevant for assessment

Product:
SENTRON ECPD

SHI Product Passport no.:
15538-10-1000

SIEMENS

DGNB New Construction 2018

The DGNB System (German Sustainable Building Council) assesses the sustainability of various types of buildings. It can be applied to both large-scale private and commercial projects as well as smaller residential buildings.

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact			Not relevant for assessment

Product:
SENTRON ECPD

SHI Product Passport no.:
15538-10-1000

SIEMENS

BNB-BN Neubau V2015

The Bewertungssystem Nachhaltiges Bauen (Assessment System for Sustainable Building) is a tool for evaluating public office and administrative buildings, educational facilities, laboratory buildings, and outdoor areas in Germany. The BNB was developed by the former Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and is now overseen by the Federal Ministry for Housing, Urban Development and Building (BMWSB).

Criteria	Pos. / product type	Considered substance group	Quality level
1.1.6 Risiken für die lokale Umwelt			Not relevant for assessment

Product:
SENTRON ECPD

SHI Product Passport no.:
15538-10-1000

SIEMENS

BREEAM DE Neubau 2018

BREEAM (Building Research Establishment Environmental Assessment Methodology) is a UK-based building assessment system that evaluates the sustainability of new constructions, refurbishments, and conversions. Developed by the Building Research Establishment (BRE), the system aims to assess and improve the environmental, economic, and social performance of buildings.

Criteria	Product category	Considered substances	Quality level
Hea 02 Indoor Air Quality			Not relevant for assessment

Product:
SENTRON ECPD

SHI Product Passport no.:
15538-10-1000

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Product labels

In the construction industry, high-quality materials are crucial for a building's indoor air quality and sustainability. Product labels and certificates offer guidance to meet these requirements. However, the evaluation criteria of these labels vary, and it is important to carefully assess them to ensure products align with the specific needs of a construction project.

Products bearing the Sentinel Holding Institute QNG-ready seal are suitable for projects aiming to achieve the "Qualitätssiegel Nachhaltiges Gebäude" (Quality Seal for Sustainable Buildings). QNG-ready products meet the requirements of QNG Appendix Document 3.1.3, "Avoidance of Harmful Substances in Building Materials." The KfW loan program Climate-Friendly New Construction with QNG may allow for additional funding.

EPD-Norge is the Norwegian program operator for Environmental Product Declarations (EPDs). The program follows ISO 14025 and EN 15804 and ensures that EPDs for construction and industrial products are published in a consistent, verified and comparable manner. Before publication, each EPD undergoes independent third-party verification; EPD-Norge provides clear procedures, Product Category Rules (PCR/NPCR) and a public register for this purpose.

Product:
SENTRON ECPD

SHI Product Passport no.:
15538-10-1000

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Legal notices

(*) These criteria apply to the construction project as a whole. While individual products can positively contribute to the overall building score through proper planning, the evaluation is always conducted at the building level. The information was provided entirely by the manufacturer.

Find our criteria here: https://www.sentinel-holding.eu/de/Themenwelten/Pr%C3%BCfkriterien%20f%C3%BCr%20Produkte

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SGS

SGS TÜV SAAR

Publisher

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info@sentinel-holding.eu
www.sentinel-holding.eu

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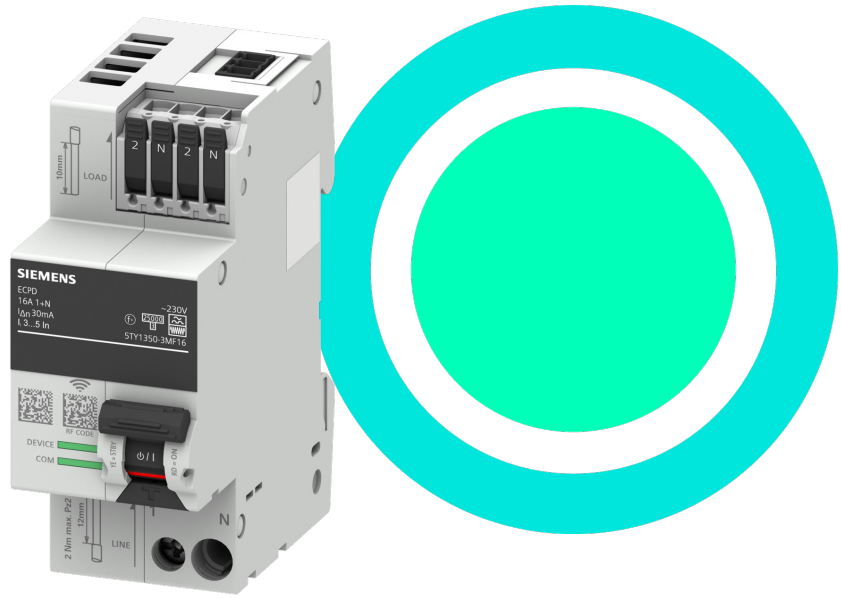
SENTRON ECPD - ELECTRONIC CIRCUIT PROTECTION DEVICE 5TY1

Siemens EcoTech Profile

SENTRON ECPD - All you need. And more.



Secondary material
Product housing is made out of plastic with recycled content to save resources.

Packaging
Packaging waste is reduced compared to ordering single conventional products*, that are substituted by SENTRON ECPD.

Durability / Longevity
Robustness, high quality and long mechanical and electronic lifetime of the SENTRON ECPD supports reliability and high availability of the application.

Minimum material use
Bundling of multiple functionalities in one device leads to significant material and resource savings* in production as well as space reduction in application.

Energy efficiency
Significant savings in power consumption based on incorporation of multiple product features in one single device*.

Upgradability
Firmware upgrades of additional product functionalities are available to adapt to upcoming application requirements.

Compliant with substance regulations
Protect people and environment by avoiding substances of concern.

EPD Type II available
According to ISO 14021 including Life Cycle Impact Assessment (LCIA).
The Environmental Product Declaration (EPD) provides transparency on the environmental impact of the product throughout its life cycle (e.g. Product Carbon Footprint (PCF) data).

Scan for Environmental Product Declarations (EPD) and further technical information.

Siemens EcoTech

Range of application
This Siemens EcoTech Profile is valid for all products in the range of 5TY1.

SIEMENS

Further information on the product

Sustainable materials:

Secondary material
- Housing is made out of plastic with 30% recycled glass fibre.

Packaging
- 90% less material in packaging compared to conventional solution*.
- The Siemens ID Link leads directly to all product-specific information via a QR code, reducing paper documentation.

Minimum material use
- 50% savings of CO_2 representing 1,53 kg less material use in manufacturing phase compared to conventional solution* e.g. 90% less plastic & metal and 80% less electronics.

Optimal use:

Durability / Longevity
- Superb longevity compared to conventional miniature circuit breakers: Up to 10,000 mechanical switching cycles and 1,000,000 electronic switching cycles.

Energy efficiency
- Low power consumption reduces CO_2 footprint in use phase by up to 65% compared to conventional solution* (typ. lighting application: 20%, cooling systems: 50% power saving).
- Transparency over the energy flows in the application provided by metering and communication function supports energy efficiency and management acc. ISO 50001.

Value recovery & circularity:

Upgradability
- By adapting to new upcoming requirements SENTRON ECPD enables machines and switchboards to be used longer and more productively in order to save costs and resources.
- SENTRON ECPD can integrate up to 10 conventional functionalities with one device and these can be extended and adapted via firmware upgrades (e.g. timer, residual current monitoring, signaling contacts and more).

* The novelty and disruptive technology of ECPD can integrate and thus substitute up to 10 conventional installation products (e.g. timer, residual current device, signaling contacts and more) with one device.

Our production facilities

Our goal is clear: All Siemens production facilities and buildings worldwide are to achieve a net zero-carbon footprint by 2030. Today, all Siemens EcoTech products are manufactured in production facilities using 100% renewable electricity.

And the ambitions go much further. The management systems implemented in our production facilities reduce the environmental impacts of our sites. Furthermore, we ensure fair treatment and respect for our people. More information about the 360° view on Siemens' sustainable transformation: Learn more about our DEGREE framework

Scan for more information on the Siemens EcoTech framework

Our Robust Eco Design process

The Siemens Robust Eco Design (RED) approach provides the foundation for integrating Ecodesign systematically into our product development and allows us to derive Ecodesign specifications that are advantageous from an environment point of view while meeting our own sustainability goals as well as those of our customers and suppliers. The RED approach involves three phases:

Application perspective
Definition of relevant product families, identification, and prioritization of Ecodesign requirements from stakeholder expectations.

Solid foundation
LCA-based assessment of environmental impacts for representative products along the entire life cycle, communicated via EPD.

Dematerialization
Evaluation of quantitative environmental impacts of Ecodesign and of further requirements, derivation of improved design specifications wherever reasonable.

Siemens EcoTech

Published by Siemens

SIEMENS

Datenblatt 5TY1350-3MF06

Siemens EcoTech

ECPD mit Mess- und Kommunikationsfunktion RCD Typ F 30mA In: 6A, Un: 230V AC, 75kA 1+N in 2TE Bitte Funkzulassung beachten! Länderliste: siehe Zertifikate

Ausführung	
Produkt-Markenname	SENTRON
Produkt-Bezeichnung	Elektronisches Schutzschaltgerät
Ausführung des Grundtyps	ECPD 1+N
Art der Spannungsversorgung	AC
Norm	FI/LS-Schalter-Funktion in Anlehnung an IEC/EN 61009-1 (IEC/EN 62423)
Allgemeine technische Daten	
Polzahl	2
Ausführung der Pole	1+N
Ausführung der Netzform	TN, TT
Berührungsschutz gegen elektrischen Schlag gemäß EN 50274	Ja
mechanische Lebensdauer (Schaltspiele) der Hauptkontakte typisch	10 000
Überspannungskategorie	3
Verschmutzungsgrad	2
Spannung	
Spannungsart der Betriebsspannung	AC
Betriebsspannung bei AC	
● Nennwert	230 V
● Bemessungswert	85 ... 253 V
Stoßspannungsfestigkeit Bemessungswert	4 000 V
Netzspannung zwischen den Außenleitern bei AC maximal zulässig	325 V
Strom	
Auslösefehlerstrom Bemessungswert	30 mA
Betriebsstrom	
● bei 30 °C Bemessungswert	6 A
● **bei 40 °C Bemessungswert**	6 A
● bei 45 °C Bemessungswert	6 A
● bei 50 °C Bemessungswert	6 A
● bei 55 °C Bemessungswert	6 A
● bei 60 °C Bemessungswert	6 A
● bei 65 °C Bemessungswert	6 A
● bei 70 °C Bemessungswert	6 A
● **bei AC Bemessungswert**	6 A
● bei AC-51 Bemessungswert	4,5 A
Fehlerstromtyp	F

Schutzart und Schutzklasse	
Schutzart IP	IP20
Schaltvermögen	
Ausschaltvermögen Kurzschlussstrom (Icn) gemäß EN 61009-1 Bemessungswert	75 kA
Ausschaltzeit maximal	0,5 ms
Ausschaltzeit typisch	0,1 ms
Gitterabstand	1 mm
Energiebegrenzungsklasse	3
Verlustleistung [W] maximal	7 W
Verlustleistung [V·A] während Standby	0,7 W
Hauptstromkreis	
Betriebsfrequenz Bemessungswert	50 Hz
Induktivität im gesamten Kurzschlusskreis maximal	500 µH
Steuerstromkreis	
Spannungsart der Steuerspannung	DC
Produktdetails	
Produktbeschreibung	ECPD
Produkteigenschaft Verriegelbar in AUS-Stellung	Ja
Produkteigenschaft halogenfrei	Ja
Produkteigenschaft plombierbar	Ja
Produkteigenschaft siliconfrei	Ja
Produkteigenschaft werkzeuglose Klemme Lastseite	Ja
Anzahl der Digitaleingänge	1
Anzahl der Digitalausgänge	1
Anschlüsse	
Abisolierlänge der Leitung für Hilfs- und Steuerkontakte	7 mm
Abisolierlänge Einspeiseseite	12 mm
Anzugsdrehmoment bei Schraubanschluss	
● minimal Einspeiseseite	1,2 N·m
● maximal Einspeiseseite	2 N·m
Abisolierlänge Lastseite	10 mm
anschließbarer Leiterquerschnitt mehrdrähtig	
● minimal Lastseite	0,2 mm²
● maximal Lastseite	4 mm²
anschließbarer Leiterquerschnitt für Hilfs- und Steuerkontakte	
● eindrähtig minimal	0,14 mm²
● eindrähtig maximal	1,5 mm²
● feindrähtig ohne Aderendbearbeitung minimal	0,14 mm²
● feindrähtig ohne Aderendbearbeitung maximal	1,5 mm²
● feindrähtig mit Aderendbearbeitung minimal	0,25 mm²
● feindrähtig mit Aderendbearbeitung maximal	0,75 mm²
Position des Netzanschlusskabels	unten
Mechanischer Aufbau	
Höhe	90 mm
Breite	36 mm
Tiefe	70 mm
Anzahl der Breiten-Teilungseinheiten	2
Befestigungsart	Hutschiene
Befestigungsart Schienen-Montage	Ja
Einbaulage	beliebig
Nettogewicht pro ME	178 g
Gewicht mit Verpackung	178 g
Umgebungsbedingungen	
Umgebungstemperatur während Betrieb	
● minimal	-40 °C
● maximal	70 °C
Umgebungstemperatur während Lagerung	
● minimal	-40 °C
● maximal	75 °C

Umwelt-Fußabdruck

Umweltproduktdeklaration(EPD)	Ja
Treibhauspotential [CO2 eq] gesamt	33,1 kg
Treibhauspotential [CO2 eq] während Herstellung	7,99 kg
Treibhauspotential [CO2 eq] während Betrieb	26,6 kg
Treibhauspotential [CO2 eq] nach End of Life	-1,58 kg
Siemens Ökoprofil (SEP)	Siemens EcoTech

Approbationen Zertifikate

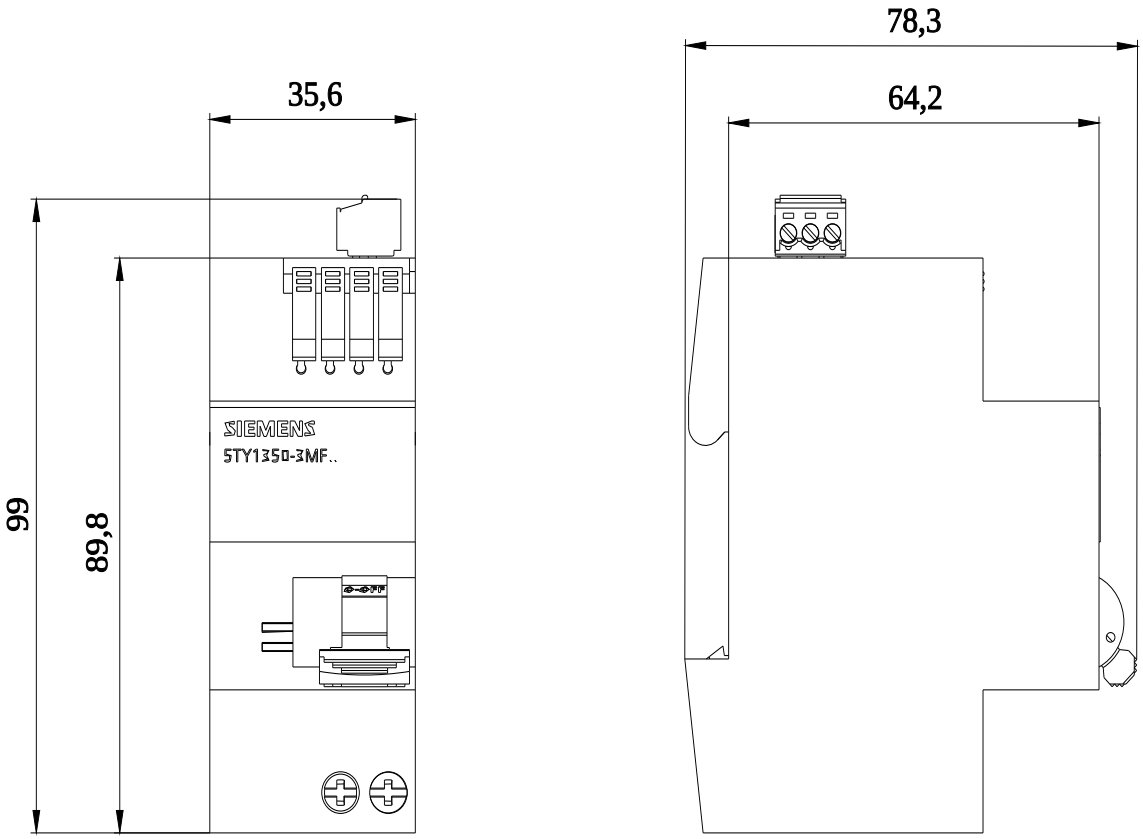
allgemeine Produktzulassung	Funkzulassung	Prüfbescheinigungen	Sonstige	Gefahrgut
CE EG-Konf. UKCA	Sonstige	Typprüfbescheinigung / Werkszeugnis	Bestätigung	Transport Information

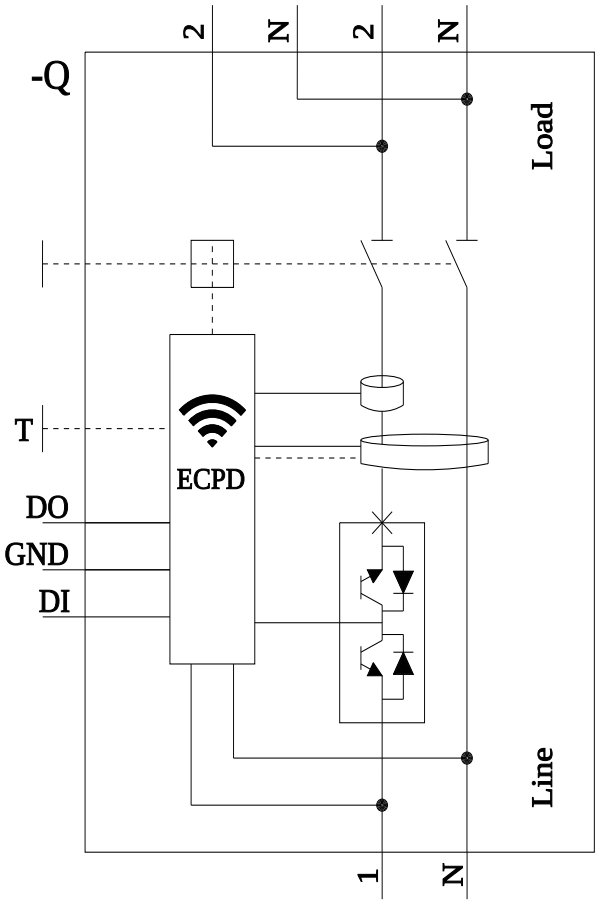
Umwelt

Siemens EcoTech EPD

Weitere Informationen

Informationen zur Verpackung
https://support.industry.siemens.com/cs/ww/de/view/109813875
Informationen zur Datengenerierung und Speicherung
https://support.industry.siemens.com/cs/ww/de/view/109995012
Information- and Downloadcenter (Kataloge, Broschüren,…)
http://www.siemens.de/lowvoltage/kataloge
Industry Mall (Online-Bestellsystem)
https://mall.industry.siemens.com/mall/de/de/Catalog/product?mlfb=5TY1350-3MF06
Service&Support (Handbücher, Betriebsanleitungen, Zertifikate, Kennlinien, FAQs,…)
https://support.industry.siemens.com/cs/ww/de/ps/5TY1350-3MF06
Bilddatenbank (Produktfotos, 2D-Maßzeichnungen, 3D-Modelle, Geräteschaltpläne, …)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=5TY1350-3MF06
CAx-Online-Generator
http://www.siemens.com/cax
Ausschreibungstexte (Leistungsverzeichnisse)
http://www.siemens.de/ausschreibungstexte





SIEMENS

Datenblatt 5TY1350-3MF10

Siemens EcoTech

ECPD mit Mess- und Kommunikationsfunktion RCD Typ F 30mA In: 10A, Un: 230V AC, 75kA 1+N in 2TE Bitte Funkzulassung beachten! Länderliste: siehe Zertifikate

Ausführung	
Produkt-Markenname	SENTRON
Produkt-Bezeichnung	Elektronisches Schutzschaltgerät
Ausführung des Grundtyps	ECPD 1+N
Art der Spannungsversorgung	AC
Norm	FI/LS-Schalter-Funktion in Anlehnung an IEC/EN 61009-1 (IEC/EN 62423)
Allgemeine technische Daten	
Polzahl	2
Ausführung der Pole	1+N
Ausführung der Netzform	TN, TT
Berührungsschutz gegen elektrischen Schlag gemäß EN 50274	Ja
mechanische Lebensdauer (Schaltspiele) der Hauptkontakte typisch	10 000
Überspannungskategorie	3
Verschmutzungsgrad	2
Spannung	
Spannungsart der Betriebsspannung	AC
Betriebsspannung bei AC	
● Nennwert	230 V
● Bemessungswert	85 ... 253 V
Stoßspannungsfestigkeit Bemessungswert	4 000 V
Netzspannung zwischen den Außenleitern bei AC maximal zulässig	325 V
Strom	
Auslösefehlerstrom Bemessungswert	30 mA
Betriebsstrom	
● bei 30 °C Bemessungswert	10 A
● **bei 40 °C Bemessungswert**	10 A
● bei 45 °C Bemessungswert	10 A
● bei 50 °C Bemessungswert	10 A
● bei 55 °C Bemessungswert	10 A
● bei 60 °C Bemessungswert	10 A
● bei 65 °C Bemessungswert	10 A
● bei 70 °C Bemessungswert	10 A
● **bei AC Bemessungswert**	10 A
● bei AC-51 Bemessungswert	7,5 A
Fehlerstromtyp	F

Schutzart und Schutzklasse	
Schutzart IP	IP20
Schaltvermögen	
Ausschaltvermögen Kurzschlussstrom (Icn) gemäß EN 61009-1 Bemessungswert	75 kA
Ausschaltzeit maximal	0,5 ms
Ausschaltzeit typisch	0,1 ms
Gitterabstand	1 mm
Energiebegrenzungsklasse	3
Verlustleistung [W] maximal	7 W
Verlustleistung [V·A] während Standby	0,7 W
Hauptstromkreis	
Betriebsfrequenz Bemessungswert	50 Hz
Induktivität im gesamten Kurzschlusskreis maximal	500 µH
Steuerstromkreis	
Spannungsart der Steuerspannung	DC
Produktdetails	
Produktbeschreibung	ECPD
Produkteigenschaft Verriegelbar in AUS-Stellung	Ja
Produkteigenschaft halogenfrei	Ja
Produkteigenschaft plombierbar	Ja
Produkteigenschaft siliconfrei	Ja
Produkteigenschaft werkzeuglose Klemme Lastseite	Ja
Anzahl der Digitaleingänge	1
Anzahl der Digitalausgänge	1
Anschlüsse	
Abisolierlänge der Leitung für Hilfs- und Steuerkontakte	7 mm
Abisolierlänge Einspeiseseite	12 mm
Anzugsdrehmoment bei Schraubanschluss	
● minimal Einspeiseseite	1,2 N·m
● maximal Einspeiseseite	2 N·m
Abisolierlänge Lastseite	10 mm
anschließbarer Leiterquerschnitt mehrdrähtig	
● minimal Lastseite	0,2 mm²
● maximal Lastseite	4 mm²
anschließbarer Leiterquerschnitt für Hilfs- und Steuerkontakte	
● eindrähtig minimal	0,14 mm²
● eindrähtig maximal	1,5 mm²
● feindrähtig ohne Aderendbearbeitung minimal	0,14 mm²
● feindrähtig ohne Aderendbearbeitung maximal	1,5 mm²
● feindrähtig mit Aderendbearbeitung minimal	0,25 mm²
● feindrähtig mit Aderendbearbeitung maximal	0,75 mm²
Position des Netzanschlusskabels	unten
Mechanischer Aufbau	
Höhe	90 mm
Breite	36 mm
Tiefe	70 mm
Anzahl der Breiten-Teilungseinheiten	2
Befestigungsart	Hutschiene
Befestigungsart Schienen-Montage	Ja
Einbaulage	beliebig
Nettogewicht pro ME	180 g
Gewicht mit Verpackung	178 g
Umgebungsbedingungen	
Umgebungstemperatur während Betrieb	
● minimal	-40 °C
● maximal	70 °C
Umgebungstemperatur während Lagerung	
● minimal	-40 °C
● maximal	75 °C

Umwelt-Fußabdruck

Umweltproduktdeklaration(EPD)	Ja
Treibhauspotential [CO2 eq] gesamt	33,1 kg
Treibhauspotential [CO2 eq] während Herstellung	7,99 kg
Treibhauspotential [CO2 eq] während Betrieb	26,6 kg
Treibhauspotential [CO2 eq] nach End of Life	-1,58 kg
Siemens Ökoprofil (SEP)	Siemens EcoTech

Approbationen Zertifikate

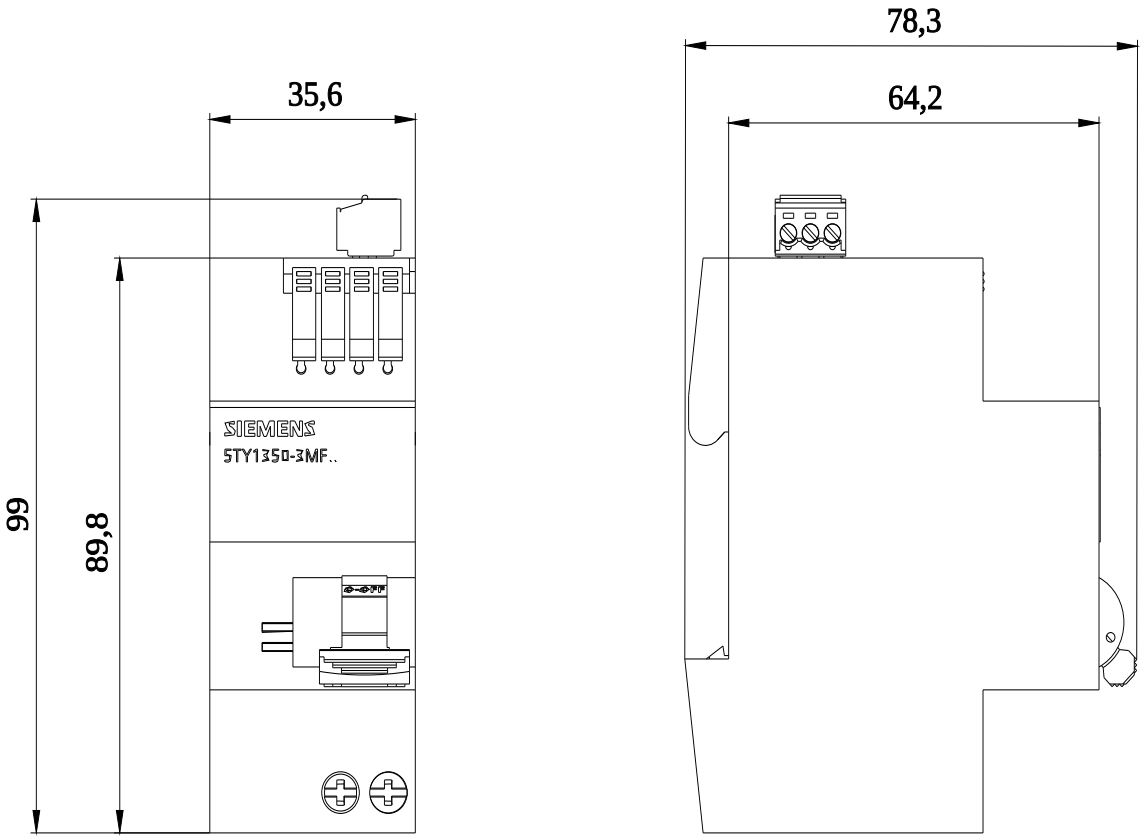
allgemeine Produktzulassung	Funkzulassung	Prüfbescheinigungen	Sonstige	Gefahrgut
CE EG-Konf. UKCA	Sonstige	Typprüfbescheinigung / Werkszeugnis	Bestätigung	Transport Information

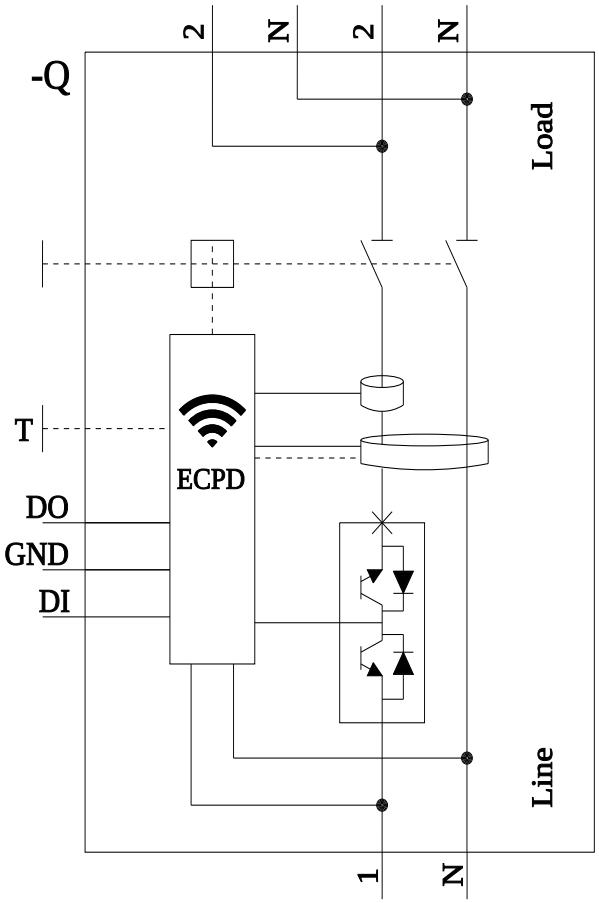
Umwelt

Siemens EcoTech EPD

Weitere Informationen

Informationen zur Verpackung
https://support.industry.siemens.com/cs/ww/de/view/109813875
Informationen zur Datengenerierung und Speicherung
https://support.industry.siemens.com/cs/ww/de/view/109995012
Information- and Downloadcenter (Kataloge, Broschüren,…)
http://www.siemens.de/lowvoltage/kataloge
Industry Mall (Online-Bestellsystem)
https://mall.industry.siemens.com/mall/de/de/Catalog/product?mlfb=5TY1350-3MF10
Service&Support (Handbücher, Betriebsanleitungen, Zertifikate, Kennlinien, FAQs,…)
https://support.industry.siemens.com/cs/ww/de/ps/5TY1350-3MF10
Bilddatenbank (Produktfotos, 2D-Maßzeichnungen, 3D-Modelle, Geräteschaltpläne, …)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=5TY1350-3MF10
CAx-Online-Generator
http://www.siemens.com/cax
Ausschreibungstexte (Leistungsverzeichnisse)
http://www.siemens.de/ausschreibungstexte





SIEMENS

Datenblatt 5TY1350-3MF16

Siemens EcoTech

ECPD mit Mess- und Kommunikationsfunktion RCD Typ F 30mA In: 16A, Un: 230V AC, 75kA 1+N in 2TE Bitte Funkzulassung beachten! Länderliste: siehe Zertifikate

Ausführung	
Produkt-Markenname	SENTRON
Produkt-Bezeichnung	Elektronisches Schutzschaltgerät
Ausführung des Grundtyps	ECPD 1+N
Art der Spannungsversorgung	AC
Norm	FI/LS-Schalter-Funktion in Anlehnung an IEC/EN 61009-1 (IEC/EN 62423)
Allgemeine technische Daten	
Polzahl	2
Ausführung der Pole	1+N
Ausführung der Netzform	TN, TT
Berührungsschutz gegen elektrischen Schlag gemäß EN 50274	Ja
mechanische Lebensdauer (Schaltspiele) der Hauptkontakte typisch	10 000
Überspannungskategorie	3
Verschmutzungsgrad	2
Spannung	
Spannungsart der Betriebsspannung	AC
Betriebsspannung bei AC	
● Nennwert	230 V
● Bemessungswert	85 ... 253 V
Stoßspannungsfestigkeit Bemessungswert	4 000 V
Netzspannung zwischen den Außenleitern bei AC maximal zulässig	325 V
Strom	
Auslösefehlerstrom Bemessungswert	30 mA
Betriebsstrom	
● bei 30 °C Bemessungswert	16 A
● **bei 40 °C Bemessungswert**	16 A
● bei 45 °C Bemessungswert	16 A
● bei 50 °C Bemessungswert	15,2 A
● bei 55 °C Bemessungswert	14,4 A
● bei 60 °C Bemessungswert	13,6 A
● bei 65 °C Bemessungswert	12,8 A
● bei 70 °C Bemessungswert	12 A
● **bei AC Bemessungswert**	16 A
● bei AC-51 Bemessungswert	12 A
Fehlerstromtyp	F

Schutzart und Schutzklasse	
Schutzart IP	IP20
Schaltvermögen	
Ausschaltvermögen Kurzschlussstrom (Icn) gemäß EN 61009-1 Bemessungswert	75 kA
Ausschaltzeit maximal	0,5 ms
Ausschaltzeit typisch	0,1 ms
Gitterabstand	1 mm
Energiebegrenzungsklasse	3
Verlustleistung [W] maximal	7 W
Verlustleistung [V·A] während Standby	0,7 W
Hauptstromkreis	
Betriebsfrequenz Bemessungswert	50 Hz
Induktivität im gesamten Kurzschlusskreis maximal	500 µH
Steuerstromkreis	
Spannungsart der Steuerspannung	DC
Produktdetails	
Produktbeschreibung	ECPD
Produkteigenschaft Verriegelbar in AUS-Stellung	Ja
Produkteigenschaft halogenfrei	Ja
Produkteigenschaft plombierbar	Ja
Produkteigenschaft siliconfrei	Ja
Produkteigenschaft werkzeuglose Klemme Lastseite	Ja
Anzahl der Digitaleingänge	1
Anzahl der Digitalausgänge	1
Anschlüsse	
Abisolierlänge der Leitung für Hilfs- und Steuerkontakte	7 mm
Abisolierlänge Einspeiseseite	12 mm
Anzugsdrehmoment bei Schraubanschluss	
● minimal Einspeiseseite	1,2 N·m
● maximal Einspeiseseite	2 N·m
Abisolierlänge Lastseite	10 mm
anschließbarer Leiterquerschnitt mehrdrähtig	
● minimal Lastseite	0,2 mm²
● maximal Lastseite	4 mm²
anschließbarer Leiterquerschnitt für Hilfs- und Steuerkontakte	
● eindrähtig minimal	0,14 mm²
● eindrähtig maximal	1,5 mm²
● feindrähtig ohne Aderendbearbeitung minimal	0,14 mm²
● feindrähtig ohne Aderendbearbeitung maximal	1,5 mm²
● feindrähtig mit Aderendbearbeitung minimal	0,25 mm²
● feindrähtig mit Aderendbearbeitung maximal	0,75 mm²
Position des Netzanschlusskabels	unten
Mechanischer Aufbau	
Höhe	90 mm
Breite	36 mm
Tiefe	70 mm
Anzahl der Breiten-Teilungseinheiten	2
Befestigungsart	Hutschiene
Befestigungsart Schienen-Montage	Ja
Einbaulage	beliebig
Nettogewicht pro ME	180 g
Gewicht mit Verpackung	178 g
Umgebungsbedingungen	
Umgebungstemperatur während Betrieb	
● minimal	-40 °C
● maximal	70 °C
Umgebungstemperatur während Lagerung	
● minimal	-40 °C
● maximal	75 °C

Umwelt-Fußabdruck

Umweltproduktdeklaration(EPD)	Ja
Treibhauspotential [CO2 eq] gesamt	33,1 kg
Treibhauspotential [CO2 eq] während Herstellung	7,99 kg
Treibhauspotential [CO2 eq] während Betrieb	26,6 kg
Treibhauspotential [CO2 eq] nach End of Life	-1,58 kg
Siemens Ökoprofil (SEP)	Siemens EcoTech

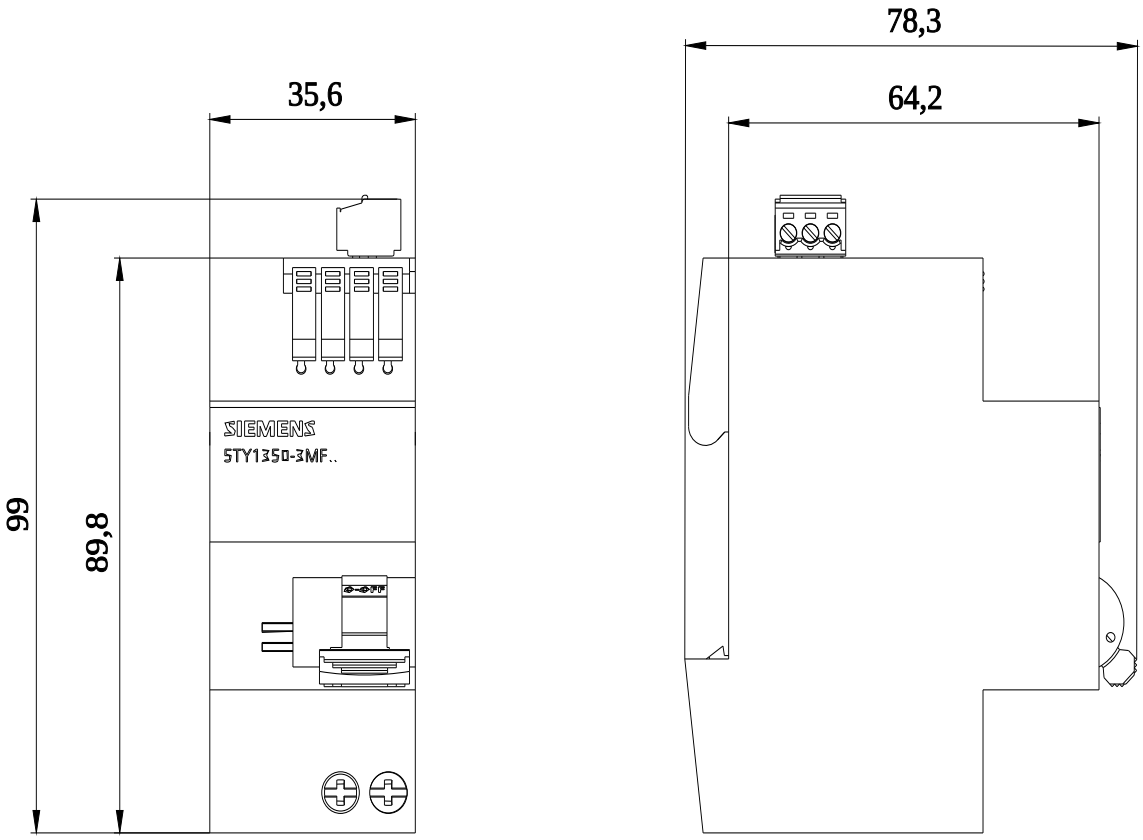
Approbationen Zertifikate

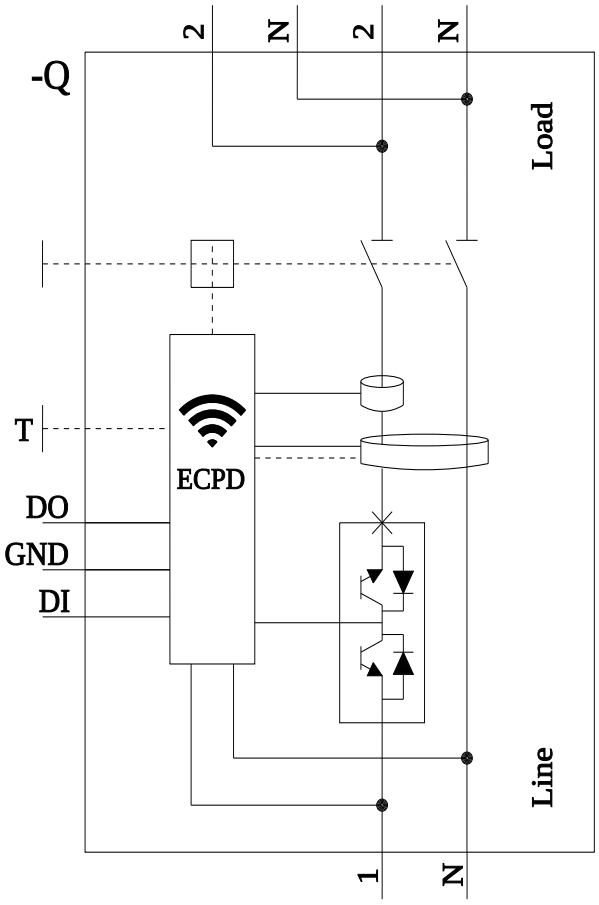
allgemeine Produktzulassung		Funkzulassung		Prüfbescheinigungen	Sonstige
CE EG-Konf.	UKCA	Sonstige	Sonstige	Typprüfbescheinigung / Werkszeugnis	Bestätigung

Gefahrgut	Umwelt
Transport Information	Siemens EcoTech, EPD

Weitere Informationen

Informationen zur Verpackung
https://support.industry.siemens.com/cs/ww/de/view/109813875
Informationen zur Datengenerierung und Speicherung
https://support.industry.siemens.com/cs/ww/de/view/109995012
Information- and Downloadcenter (Kataloge, Broschüren,…)
http://www.siemens.de/lowvoltage/kataloge
Industry Mall (Online-Bestellsystem)
https://mall.industry.siemens.com/mall/de/de/Catalog/product?mlfb=5TY1350-3MF16
Service&Support (Handbücher, Betriebsanleitungen, Zertifikate, Kennlinien, FAQs,…)
https://support.industry.siemens.com/cs/ww/de/ps/5TY1350-3MF16
Bilddatenbank (Produktfotos, 2D-Maßzeichnungen, 3D-Modelle, Geräteschaltpläne, …)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=5TY1350-3MF16
CAx-Online-Generator
http://www.siemens.com/cax
Ausschreibungstexte (Leistungsverzeichnisse)
http://www.siemens.de/ausschreibungstexte





letzte Änderung: 22.07.2025

SIEMENS

TC 0070-01

Typprüfbescheinigung / Type Test Certificate

Erzeugnis: *Product:*	**Electronic Circuit Protection Device**		
Typenbezeichnung: *Type designation:*	**5TY1..**	Hersteller: *Manufacturer:*	**Siemens AG, SI EP EMS**
Ort, Datum: *Place, Date:*	Amberg, 2024-10-16	Ersteller: *Originator:*	Schulda / SI EP EMS R&D TC 3 1
Art der Prüfung: *Kind of test:*	**Type Test acc. product standard**	Verantwortiches Labor: *Responsible Laboratory:*	**Type Test Center Siemens AG, Amberg DAkkS accredited Testing Laboratory ***

Angewandte Prüfbestimmungen / *Test specifications applied:*	Durchgeführte Prüfungen / *Tests conducted:*
IEC 60947-2, Edition 5.1 (2019-07);	Seq. I: General performance requirements - Undervoltage releases; Seq. III
IEC 60947-4-3, Edition 2.0 (2014-05);	Seq. II
IEC 61009-1, Edition 3.2 (2013-09) [1] / DIN EN 61009-1 (VDE 0664-20):2023-08 [1];	Seq. A_1; Seq. A_2; Seq. B; Seq. C_1; Seq. D_0; Seq. D_1; Seq. E_0; Seq. E_1; Seq. F_0; Seq. F_1; Seq. G_0; Seq. G_1
IEC 62477-1, Edition 2.0 (2022-05) [1];	Abnormal operation and sim. faults tests: Output overload test; Breakdown of components test Environmental tests: Dry heat test; Damp heat test; Vibration test
IEC 60947-10, 121A/565/CD (2023-06) [1];	Seq. I: General performance characteristics - Verification of the voltage withstand
ETSI EN 300 328 V2.2.2 (2019-07) [1];	Radio communication tests
ETSI EN 301 489-17 V3.2.5 (2022-08) [1];	EMC-tests

[1] Standard outside the scope of accreditation.

Prüfergebnis / *Test result:*

All requirements of the test specification are met.

Änderungsdokumentation / *Change documentation:*

Index 00	2024-10-16	first release
Index 01	2025-01-16	Ie values updated

Bemerkungen / *Remarks:*

-

Anlagen: *Enclosures:* **-**

** Type Test Center Siemens AG Amberg, Reg.-Nr.: PL-11055-04-00, DAkkS accredited Testing Laboratory acc. ISO/IEC 17025, regarding the standards, listed in the scope of accreditation.*

i.V.
SI EP EMS R&D TC 3 Mr. Bogner

Product Description

General

Product:	*Electronic Circuit Protection Device*
Type designation:	*5TY1..*
Manufacturer:	*Siemens AG, SI EP* *Siemensstraße 10, 93055 Regensburg*
Production site:	*Siemens AG, SI EP* *Piața Cibin Nr. 5, Sibiu 550197, Romania*

Product Description

Nomenclature breakdown

5TY1	3	5	0	-	3	MF	16
I	II	III	IV		V	VI	VII

I. Model Type

5TY1	Electronic circuit protection device

II. Rated fault current

3	30mA

III. Size and nr. of poles

5	1+N in 2MW (module width)

IV. Extra functionalities in hardware

0	none
3	RCM, Type F

V. MCB and RCD type

3	MCB: B-char., RCD: Type F
6	MCB: B-char., RCD: Type A

VI. Suffix

MC	no additional function
MF	RCM, Type F

VII. Rated current

06	6A
10	10A
16	16A

Product Description

Technical Data

Test item particulars:	
Type of RCBO ..... :	AC / Type F
Time delay ..... :	without
Method of operating ..... :	dependent on the line voltage
Type of installation ..... :	fixed installation
Number of poles ..... :	1+N
Protection against external influences ..... :	enclosed
Method of mounting ..... :	panel board
Method of connection ..... :	electrical connections not associated with mechanical mounting
Instantaneous tripping current ..... :	B-type (3 to 5x In)
Rated current (I_N) ..... :	6 A / 10 A / 16 A
Rated residual operating current ($I_{\Delta N}$) ..... :	30 mA
Rated voltage (U_N) ..... :	230 V
Rated impulse withstand voltage (U_{imp}) ..... :	5 kV
Rated frequency (Hz) ..... :	50 Hz
Rated short-circuit capacity (I_{CN}) ..... :	75 kA
Rated residual making and breaking capacity ($I_{\Delta M}$) ..... :	75 kA
Rated ultimate short-circuit breaking capacity (I_{cu} acc. IEC 60947-2, Edition 5.1 (2019-07)) ..... :	75 kA
Nature of supply ..... :	
Type of terminal ..... :	Box terminal (line side) / push-in (load side)
Classification of RCBOs functionally dependent on the line voltage: ..... :	
Opening automatically in case of failure of the line voltage ..... :	Yes (value adjustable)
- reclosing automatically when the line voltage is restored ..... :	adjustable
- not reclosing automatically when the line voltage is restored ..... :	adjustable
Not opening automatically in case of failure of the line voltage..... :	No
- able to trip in a hazardous situation arising on failure of line voltage..... :	Yes
- not able to trip in a hazardous situation arising on failure of line voltage..... :	No
overvoltage category ..... :	III
pollution degree ..... :	3

Product Description

Control circuits		
- kind of current	:	d.c.
- rated control circuit voltage Uc (nature: a.c. / d.c.)	:	24 V d.c.
- rated control supply voltage Us (nature: a.c. / d.c.)	:	-
Operating capability (acc. IEC 60947-4-3)		
- utilization category	:	AC-1
- I_e	:	0,7x I_N
- overload current profile (X, T_x), duty cycle values (F, S)	:	X = 1,4; T_x = 300s; F = 50; S = 6 X = 1,7; T_x = 10s; F = 50; S = 180
Auxiliary circuits		
- rated operational voltage (V)	:	24 V d.c.
- number of circuits	:	1

epd-norge

SIEMENS

ENVIRONMENTAL PRODUCT DECLARATION

SENTRON ECPD

5TY1350-3MF[06,10,16]

Type III according to ISO 14025

Owner of the declaration: Siemens AG	Program holder and publisher: The Norwegian EPD foundation
Registration number: NEPD-11914-11861	Issue date: 29.07.2025 Valid to: 29.07.2030
IN COMPLIANCE WITH ISO 14025, EN 50693 and PCR EPD Italy007 and guided by IEC EN 63058:2021 Product specific rules for switchgear and controlgear and their assemblies for low voltage	
EPD type: Representative product w/o extrapoation rules for homogeneous product family	EPD scope: Cradle to Grave
Independent verification: Independent verification of the declaration and data, according to ISO14025:2011-10 ☒ Internal ☐ External according to external certified EPD management system & tool verification by Elisabet Amat, Greenize and internal verification by Lika Kvaratskhelia	Program instructions: The Norwegian EPD Foundation/EPD-Norge, General Programme Instructions 2024.09.18 version 4 Håkon Hauan Managing Director of EPD-Norway

General information

This environmental product declaration (EPD) is based on the international standard ISO 14025 (“Environmental labels and declarations — Type III environmental declarations”). The data in this EPD has been evaluated on a full-scale life cycle assessment (LCA) study according to ISO 14040/44, taking into account the product category rules (PCR) for electronic and electrotechnical products and systems defined in EN 50693, as well as product specific rules (PSR) for low-voltage switchgear and control gear equipment in IEC TS 63058 ED1.0.

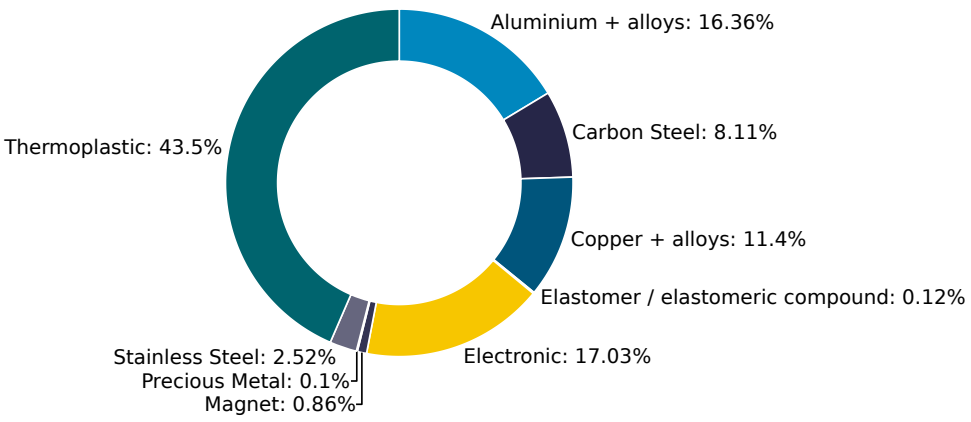
Siemens is dedicated to an environmentally conscious design of its products in line with IEC 62430 and has implemented an integrated management system according to ISO 9001, ISO 14001 and ISO 45001.

Products	All variants in the range of 5TY1350-3MF[06,10,16] consist of the same hardware and power loss characteristic, all resulting in the same impacts as the reference product
Represented by	5TY1350-3MF16
Product Description	Electronic Circuit Protection Device to operate several already known functionalities in one device (application driven) with electronic switching on base of cutting edge solid state technology.
Functional Unit	The ECPD = ”Electronic Circuit Protection Device” is an circuit protection device, with integrated electronic components for arc free / wearless switching, based on cutting edge solid state technology. The combination of already known mechanical components with the intelligent protection algorithm makes it possible to combine several product functionalities in one device. The ECPD connects via Zigbee to SENTRON Gateway solutions like Power Center 1000 via wireless communication. The representative product’s (5TY1350-3MF16) use phase scenario is: 7 W full load, 50% load rate, 30% use time rate, reference lifetime: 20 years; the product is maintenance free within the reference service life.
Production Site	SIMEA Sibiu SRL, Romania

Material composition

The product weight of 0.16 kg combined with the packaging weight of 0.01 kg results in a total weight of 0.17 kg. The following chart outlines the overall material composition of the reference product, excluding packaging. Packaging consists of: Corrugated box (average composition) (EoL), Graphic paper (EoL).

Product Weight 0.16 kg



Substance assessment

At Siemens, we are committed to the development and production of environmentally sound and sustainably produced equipment. This includes avoiding hazardous substances in our products without compromising their benefits for our customers.
Please visit the following website to learn more about how we comply with product-related environmental regulations like RoHS, REACH, WEEE and others: Product Related Environmental Protection

System boundaries and scenarios

The EPD covers the cradle to grave of the product including the following stages.

Manufacturing stage			Distribution	Installation	Use stage							End-of-Life stage				Benefits & loads beyond system boundary
Raw materials	Transport	Production	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-Installation	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling Potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	0	0	0	0	0	0	X	0	0	X	X	X	X

Temporal and geographical scope and representativeness	Primary data of 2023; Secondary data : LCA for Experts (GaBi) 10.8, Database valid until 2025. The materials and components used in production are globally sourced and have been selected from Sphera data sets according to the global or regional representativeness.
Data quality	Both primary and secondary data are used. To ensure the high quality and completeness of the LCA results, primary data have been used whenever possible. The main sources for primary data are the bill of materials and the bill of processes. Site specific data are provided by Siemens reporting system. Datasets for resources, such as electrical energy or natural gas, are chosen from the region where the device is produced and assembled. If primary data are not available, datasets reflecting state-of-the-art manufacturing technology are considered. Generic data originating from the LCA tool: LCA for Experts (GaBi) 10.8, Database: MLC (“Managed LCA Content” formerly known as GaBi) Professional & Extensions are used.
Allocation	Amount of resources used and waste generated in production at Siemens is allocated based on annual production volume. For the end-of-life allocation, the “Polluter Pays” principle is adopted as required by the PCR EPDItaly007. Waste treatment processes are allocated to the product system that generates the waste until the end-of-waste state is reached. The environmental burdens of recycling and energy recovery processes are therefore allocated to the product system that generates the waste, while the product system that uses the exported energy and recycled materials receives it burden-free. Potential benefits and avoided loads from recovery and recycling processes are considered in separate Benefits & Loads beyond system boundary section.

Cut-off	According to EN 50693, the cut-off criteria can be set to a maximum of 5 % of the overall environmental impacts. In this LCA, stickers, labels, tape, and staples used in the packaging have been excluded as their weights are negligible below 1%.

Scenarios:

The following information describes the scenarios in the different modules of the EPD.

Manufacturing	This stage covers the extraction of natural resources, production of raw materials, manufacturing, packaging, and upstream transportation.
Transportation to production site	Maritime Container ship (large ship 200000 DWT 23000 TEU) 19000 km, Road Truck-trailer (34-40 t) 1000 km, according to the default scenario of local and international transport (PCR EN 50693, 4.3.2)
Production energy model used	Romania (standard mix) with emission factor of 0.34 kgCO2e/kWh
Distribution	This stage covers the product's distribution.
Distribution: Transport model use	Truck-trailer (34-40 t) 3500 km according to the default scenario of intracontinental transport (PCR EN 50693, 4.3.2)
Installation	This stage covers the End-of-Life treatment of transport packaging.
Installation: Energy model used	Not relevant
Use	This stage covers the operational energy use. All other modules do not apply for this product. Different operating conditions can lead to deviations from the reference scenario.
Use: Energy model used and use scenario	Europe (standard mix) with emission factor of 0.29 kgCO2e/kWh 0.7 W full load, 50% load rate, 30% use time rate, reference service lifetime: 20 years
EoL	This stage covers the disassembly, material recycling in addition to thermal treatment of all recoverable materials and the disposal of all other materials.
EoL: Transport model use	Road Truck-trailer, 34 - 40t gross weight 1000 km
EoL: Energy model used	EMEA

Life cycle assessment - results

The following impact categories characterize the product's environmental footprint. They have been calculated with LCIA methodology 01 EN15804+A2 (EF 3.1); LCA tool: Green Digital Twin (GDT), Database: One Siemens LCA Database (based on MLC CUP 2024.1, formerly GaBi).

To ensure the high quality and completeness of the LCA results, primary data have been used whenever possible. Datasets for resources, such as electrical energy or natural gas, are chosen from the region where the device is produced and assembled. If primary data are not available, datasets reflecting state-of-the-art manufacturing technology are considered.

Environmental performance indicators

Indicators	Unit	Total - (w/o D)	A1-A3	A4	A5	B1-B7	C1-C4	D
			Manufacturing	Distribution	Installation	Use stage	End of life	Benefits & loads
CC - total	kg CO_2 eq	3.73E+1	1.06E+1	4.36E-2	0.00E+0	2.66E+1	1.34E-1	-1.35E+0
CC - fossil	kg CO_2 eq	3.71E+1	1.06E+1	4.27E-2	0.00E+0	2.64E+1	1.33E-1	-1.34E+0
CC - biogenic	kg CO_2 eq	2.35E-1	-2.17E-3	1.02E-4	0.00E+0	2.37E-1	3.57E-5	0.00E+0
CC - luluc	kg CO_2 eq	1.53E-2	1.04E-2	7.19E-4	0.00E+0	4.01E-3	2.11E-4	-1.43E-3
ODP	kg CFC-11 eq	7.25E-10	1.27E-10	6.30E-15	0.00E+0	5.98E-10	8.41E-14	-3.23E-12
AP	Mole of H+ eq	2.27E-1	1.76E-1	5.86E-5	0.00E+0	5.08E-2	2.07E-4	-8.57E-2
EP - freshwater	kg P eq	1.78E-4	6.79E-5	1.83E-7	0.00E+0	1.10E-4	4.52E-7	-2.40E-6
EP - marine	kg N eq	2.43E-2	1.15E-2	2.13E-5	0.00E+0	1.27E-2	1.00E-4	-1.79E-3
EP - terrestrial	Mole of N eq	2.58E-1	1.24E-1	2.53E-4	0.00E+0	1.33E-1	1.12E-3	-1.97E-2
POCP	kg NMVOC eq	7.36E-2	3.97E-2	5.84E-5	0.00E+0	3.36E-2	2.58E-4	-9.78E-3
ADP - M & M	kg Sb eq	7.33E-4	7.28E-4	3.72E-9	0.00E+0	4.93E-6	1.83E-9	-2.48E-4
ADP - fossil	MJ	6.95E+2	1.42E+2	5.63E-1	0.00E+0	5.52E+2	2.90E-1	-1.72E+1
WDP	m^3 world eq deprived water	1.20E+1	4.80E+0	6.62E-4	0.00E+0	7.18E+0	1.33E-2	-4.56E-1
PM	Disease incidences	2.02E-6	1.59E-6	5.86E-10	0.00E+0	4.25E-7	7.47E-10	-5.53E-7
IRP	kBq U235 eq	1.52E+1	6.91E-1	1.49E-4	0.00E+0	1.45E+1	1.80E-3	-7.10E-2
ETP - fw	CTUe	2.21E+2	6.03E+1	4.18E-1	0.00E+0	1.60E+2	1.78E-1	-5.04E+0
HTP - c	CTUh	1.96E-8	1.06E-8	8.44E-12	0.00E+0	8.98E-9	4.99E-12	-6.71E-10
HTP - nc	CTUh	2.42E-7	1.04E-7	3.79E-10	0.00E+0	1.38E-7	1.69E-10	-2.12E-8
SQP	dimensionless (pt)	3.02E+2	6.81E+1	2.77E-1	0.00E+0	2.34E+2	1.16E-1	-1.08E+0

***CC-total**: Climate change; **CC-fossil**: Climate change fossil; **CC-biogenic**: Climate change biogenic; **CC-LULUC**: Climate change land use and land use change; **ODP**: Depletion potential of the stratospheric ozone layer; **AP**: Acidification potential, accumulated exceedance; **EP-freshwater**: Eutrophication potential, fraction of nutrients reaching freshwater end compartment; **EP-marine**: Eutrophication potential, fraction of nutrients reaching freshwater end compartment; **EP-terrestrial**: Eutrophication potential, accumulated exceedance; **POCP**: Formation potential of tropospheric ozone; **ADP-M&M**: Abiotic depletion potential for non-fossil resources (minerals and metals); **ADP-fossil**: Abiotic depletion potential for fossil resources; **WDP**: Water deprivation potential, deprivation weighted water consumption; **PM**: Particulate matter emissions; **IRP**: Ionizing radiation, human health; **ETP-fw**: Ecotoxicity freshwater; **HTP-c**: Human toxicity, cancer effects; **HTP-nc**: Human toxicity, non-cancer effects; **SQP**: Land use related impacts / soil quality*

Resource use indicators and biogenic carbon content

Indicators	Unit	Total - (w/o D)	A1-A3	A4	A5	B1-B7	C1-C4	D
			Manufacturing	Distribution	Installation	Use stage	End of life	Benefits & loads
PERE	MJ	4.39E+2	3.93E+1	4.85E-2	0.00E+0	3.99E+2	6.74E-2	-3.23E+0
PERM	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
PERT	MJ	4.39E+2	3.93E+1	4.85E-2	0.00E+0	3.99E+2	6.74E-2	-3.23E+0
PENRE	MJ	6.95E+2	1.42E+2	5.63E-1	0.00E+0	5.52E+2	2.90E-1	-1.72E+1
PENRM	MJ	6.02E-3	1.36E+0	0.00E+0	0.00E+0	0.00E+0	-1.35E+0	0.00E+0
PENRT	MJ	6.95E+2	1.44E+2	5.63E-1	0.00E+0	5.52E+2	-1.06E+0	-1.72E+1
SM	kg	5.68E-3	5.68E-3	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
RSF	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
NRSF	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
FW	m3	4.60E-1	1.55E-1	5.41E-5	0.00E+0	3.04E-1	3.40E-4	-1.81E-2
BIOGCPRODUCT	kg of C	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
BIOGCPACKAGIN(	kg of C	6.42E-3	6.42E-3	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0

***PERE**: Use of renewable primary energy; **PERM**: Use of renewable primary energy resources used as raw material; **PERT**: Total use of renewable primary energy resources; **PENRE**: Use of non-renewable primary energy; **PENRM**: Use of non-renewable primary energy resources used as raw material; **PENRT**: Total use of non-renewable primary energy resources; **SM**: Use of secondary materials; **RSF**: Use of renewable secondary fuels; **NRSF**: Use of non-renewable secondary fuels; **FW**: Use of net fresh water*; **BIOGCPRODUCT**: Biogenic carbon content of the Product; **BIOGCPACKAGING**: Biogenic carbon content of the Packaging

End-of-Life - Waste and output flows

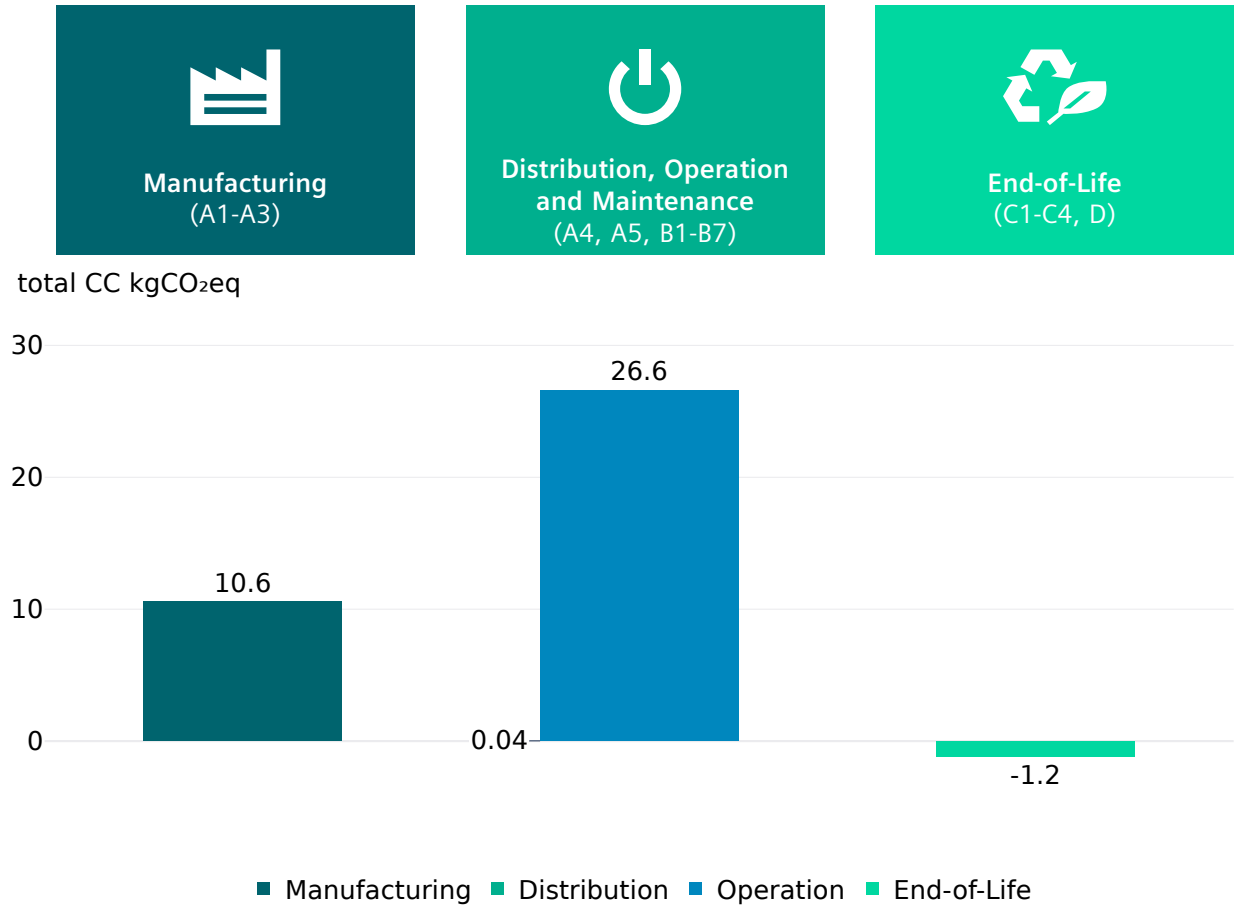
Indicators	Unit	Total - (w/o D)	A1-A3	A4	A5	B1-B7	C1-C4	D
			Manufacturing	Distribution	Installation	Use stage	End of life	Benefits & loads
HWD	kg	4.39E-6	3.59E-6	2.16E-11	0.00E+0	7.97E-7	1.14E-10	-1.71E-8
NHWD	kg	2.55E+0	2.05E+0	9.20E-5	0.00E+0	4.56E-1	4.43E-2	-7.37E-2
RWD	kg	9.39E-2	5.88E-3	1.03E-6	0.00E+0	8.81E-2	1.11E-5	-7.29E-4
MER	kg	6.11E-2	1.47E-3	0.00E+0	0.00E+0	0.00E+0	5.96E-2	0.00E+0
MFR	kg	4.83E-2	2.43E-3	0.00E+0	0.00E+0	0.00E+0	4.58E-2	0.00E+0
CRU	kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
ETE	MJ	3.93E-1	1.14E-2	0.00E+0	0.00E+0	0.00E+0	3.81E-1	3.60E-2
EEE	MJ	2.20E-1	6.42E-3	0.00E+0	0.00E+0	0.00E+0	2.14E-1	2.01E-2

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

Additional environmental information

Climate change

This chart shows the overall impact of the product on climate change – total. The operations phase is the lifecycle phase with the biggest overall impact. Different operating conditions can lead to deviations from the reference scenario.



End-of-Life results

The end-of-life stage was modelled by shredding of the device, followed by sorting and material separation process.

It leads to:

- **an overall** product recyclability of up to 43% mainly due to metal content
- **an** energy recoverability of up to 47% from plastic materials
- **a** minimum disposal rate of 10%

The exact final values depend on the used recycling process and add up to 100%.

Note: The device should not be disposed of as unsorted municipal waste. Special treatment for specific components may be mandated by law or recommended for environmental reasons. Observe all local and applicable laws.

References

ISO 14025:2010	Environmental labels and declarations - Type III environmental declarations - Principles and procedures
ISO 14040/44	Lifecycle Assessment – Principles and framework
EN 50693	Product category rules for life cycle assessments of electronic and electrical products and systems
IEC EN 63058:2021	Product specific rules for switchgear and controlgear and their assemblies for low voltage
GPI -EPDNorge	General Programme Instructions 2024.09.18 version 4

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