ENVIRONMENTAL PRODUCT DECLARATION

as per *ISO 14025* and *EN 15804+A2*

Owner of the Declaration	dormakaba International Holding GmbH
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-DOR-20260884-CBA1-EN
Issue date	25/11/2026
Valid to	28/06/2031

Concealed Transom Door Closer RTS 87

dormakaba

Institut Bauen und Umwelt e.V.

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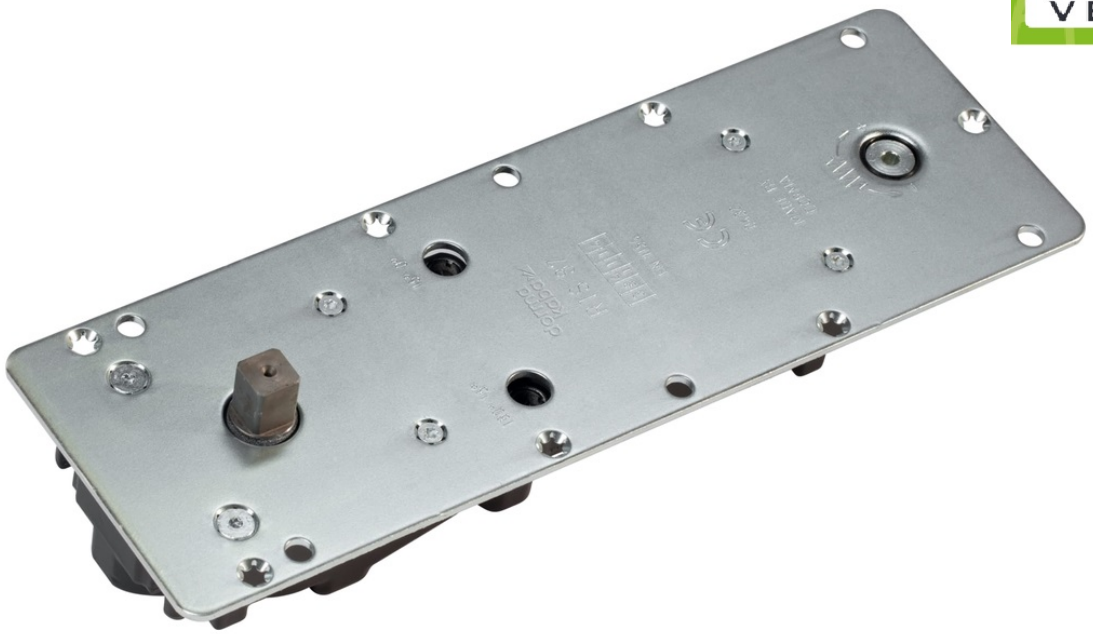
ECO PLATFORM EPD VERIFIED



General Information

dormakaba

Programme holder

IBU – Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

Declaration number

EPD-DOR-20260884-CBA1-EN

This declaration is based on the product category rules:

Building Hardware products, 01/08/2021
(PCR checked and approved by the SVR)

Issue date

25/11/2026

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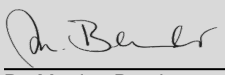
Dipl.-Ing. Hans Peters
(Chairman of Institut Bauen und Umwelt e.V.)



Dr. Martina Bender
(Managing Director Institut Bauen und Umwelt e.V.)

Concealed Transom Door Closer RTS 87

Owner of the declaration

dormakaba International Holding GmbH
DORMA Platz 1
58256 Ennepetal
Germany

Declared product / declared unit

1 piece of the product: Concealed Transom Door Closer RTS 87 consisting of the following items:

- Closer body
- Product packaging

Scope:

This Environmental Product Declaration refers to a specific concealed transom door closer manufactured by dormakaba. The production site is located in Singapore.

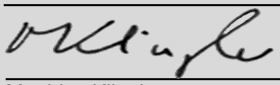
The data represents the year 2025.

The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidence.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard is abbreviated as *EN 15804*.

Verification

The standard EN 15804 serves as the core PCR
Independent verification of the declaration and data according to ISO 14025:2011
☐ internal ☒ external



Matthias Klingler,
(Independent verifier)

Product

Product description/Product definition

The RTS 87 is a concealed transom door closer for single- and double-action doors, installed within the door frame or transom where a floor spring cannot be used. The closing force is adjustable across the EN 1-4 size range, permitting on-site tuning so that the door closes fully. An integrated mechanical backcheck limits door travel under forceful opening and optional hold-open. A cam mechanism provides positive centring, and the neutral position can be fine-adjusted with the drive arm fitted within the door leaf, ensuring correct door alignment and performance. The unit is universal and non-handed, suitable for left-hand (DIN-L), right-hand (DIN-R) and double-action configurations.

For the Concealed Transom Door Closer RTS 87 the standards which can be applied are the following:

- *EN 1154*
- *EN 1634-1*

The CE-marking takes into account the proof of conformity with the respective harmonized standards based on the legal provisions above.

Application

The Concealed Transom Door Closer RTS 87 is suitable for standard, narrow, and wide door constructions in single-action (DIN-L and DIN-R) and double-action configurations.

The Concealed Transom Door Closer RTS 87 can be used for various applications:

- Schools and universities
- Hospitals and healthcare facilities
- Airports and transportation hubs
- Government and public buildings
- Commercial offices
- Hotels and hospitality
- Shopping centres and retail spaces

Technical data

The Concealed Transom Door Closer RTS 87 has following technical properties:

Technical Data	RTS 87
EN Power Size	EN 2-5
Maximum Door width	≤ 1250 mm
Adjustable Power Size	●
Independent Valve Adjustable Closing Speed 175° - 15°	●
Independent Valve Adjustable Latching Speed 15° - 0°	●
Mechanical Backcheck	●
Hold Open 90° Option	●
Dummy unit option for pivoted only doors	●
Universal Non Handed Unit	●
Double Action and Single Action Doors	●

● yes
1) Max. opening angle of the transom closer is 175°

Performance data of the product with respect to its characteristics in accordance with the relevant technical provision which can be applied are mentioned above.

Base materials/auxiliary materials

The major material composition including the packaging of the product is listed below:

Name	Value	Unit
Steel	60	%
Aluminium	21	%
Others	8	%
Zinc	5	%
Paper	4	%
Brass	1	%
Stainless steel	1	%

The product includes partial articles which contain substances listed in the Candidate *List of REACH Regulation 1907/2006/EC* (date: 04.02.2026) exceeding 0.1 percentage by mass: yes

- Lead (Pb): *7439-92-1 (CAS-No.)* is included in some of the alloys used. The concentration of lead in each individual alloy does not exceed 3.5% (by mass).

The *Candidate List* can be found on the *ECHA* website address: https://echa.europa.eu/de/home.

Manufacture

The system consists of a transom closer body, primarily made of metal components with supplementary plastic parts and hydraulic oil. The specific manufacturing steps and processes may vary depending on the product type and configuration.

Reference service life

The reference service life of the Concealed Transom Door Closer RTS 87 is about 20 years, depending on the application and frequency of use. For repairs and renewals, suitable spare parts are available. The Transom Closer is tested and certified to *EN 1154*, meaning they are designed to withstand a minimum of 500,000 cycles.

LCA: Calculation rules

Declared unit

The declared unit is 1 piece of the product: Concealed Transom Door Closer RTS 87 including packaging

Name	Value	Unit
Declared unit	1	piece/product
Mass of declared Product without Packaging	3.04	kg
Mass of Packaging	0.14	kg
Total mass of declared Product	3.18	kg

System boundary
The type of EPD is: cradle to gate with options, modules C1–C4, and module D (A1–A3 + C + D and additional modules: A4+ A5)

Production - Module A1-A3
The product stage includes: — A1, raw material extraction, processing and mechanical treatments, processing of secondary material input (e.g. recycling processes), — A2, transport to the manufacturer, — A3, manufacturing and assembly including provision of all materials, products and energy, as well as waste processing up to the end-of-waste state. The electricity used corresponds to an average emission factor of 0.496 kg CO_2-equivalent per kWh.

Construction stage - Modules A4-A5
The construction process stage includes: — A4, transport to the building site; — A5, installation into the building; including provision of all materials, products and energy, as well as waste processing up to the end-of-waste state or disposal of final residues during the construction process stage.

End-of-life stage - Modules C1-C4 and D
The end-of-life stage includes: — C1, de-construction, demolition: — C2, transport to waste processing; — C3, waste processing for reuse, recovery and/or recycling; — C4, disposal; including provision and all transport, provision of all materials, products and related energy and water use. Module D (Benefits and loads beyond the system boundary) includes: — D, recycling potentials, expressed as net impacts and benefits.

Geographic representativeness
Country or region in which the declared product system is manufactured, used or handled at the end of the product's life span: Global

Comparability
Basically, a comparison or an evaluation of EPD data is only possible if all data sets to be compared were created according to *EN 15804* and the building context and product-specific performance characteristics are taken into account.
Background database: GaBi, CUP 2024.2.

LCA: Scenarios and additional technical information

Characteristic product properties of biogenic carbon

Name	Value	Unit
Biogenic carbon content in product	-	kg C
Biogenic carbon content in accompanying packaging	0.05	kg C

Singapore is considered for A3.

Note: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO_2.

Transport to the building site (A4)

Name	Value	Unit
Litres of fuel (per declared unit)	0.00276	l/100km
Transport distance	100	km
Capacity utilisation (including empty runs)	55	%

The product is transported via truck and ship. The product is stored in the dormakaba logistic center in Wuppertal (Germany). The main distribution region is South Africa, Europe and Asia. In order to allow scaling to a specific point of installation 100 km are declared.

Installation into the building (A5)

Name	Value	Unit
Waste packaging (paper)	0.14	kg

Reference service life

Name	Value	Unit
Life Span according to the manufacturer	20	a

End of life (C1-C4)
C1: The product dismantling from the building is done manually without environmental burden.
C2: Transport to waste management is 50 km.

Name	Value	Unit
Collected separately waste type	3.04	kg
Recycling	2.81	kg
Energy recovery	0.23	kg

The product is disassembled in a recycling process. Material recycling is then assumed for metals. The plastic components are assumed to be incinerated with energy recovery. Region for the End of Life is: Global.

Reuse, recovery and/or recycling potentials (D), relevant scenario information

Name	Value	Unit
Recycling	100	%

The collection rate is 100 %.

LCA: Results

EF version 3.1

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE OR INDICATOR NOT DECLARED; MNR = MODULE NOT RELEVANT)

Product stage			Construction process stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	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	X	MND	MND	MNR	MNR	MNR	MND	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 piece Transom Closer RTS 87

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq	2.25E+01	3.28E-02	2.26E-01	0	1.57E-02	5.8E-01	0	-6.48E+00
GWP-fossil	kg CO_2 eq	2.27E+01	3.15E-02	4.62E-03	0	1.5E-02	5.8E-01	0	-6.47E+00
GWP-biogenic	kg CO_2 eq	-1.94E-01	1.37E-03	2.21E-01	0	6.53E-04	-3.14E-06	0	-5.29E-03
GWP-luluc	kg CO_2 eq	7.11E-03	1.23E-06	3.07E-06	0	5.87E-07	3.73E-05	0	-1.27E-03
ODP	kg CFC11 eq	8E-11	2.74E-15	2.71E-14	0	1.31E-15	2.11E-13	0	-3.66E-11
AP	mol H^+ eq	8.84E-02	3.46E-05	5.52E-05	0	1.66E-05	9.8E-05	0	-2.27E-02
EP-freshwater	kg P eq	1.48E-05	8.02E-09	7.72E-09	0	3.83E-09	4.9E-08	0	-4.58E-06
EP-marine	kg N eq	1.88E-02	1.24E-05	2.03E-05	0	5.91E-06	2.16E-05	0	-3.14E-03
EP-terrestrial	mol N eq	2.08E-01	1.4E-04	2.53E-04	0	6.72E-05	4.54E-04	0	-3.28E-02
POCP	kg NMVOC eq	5.64E-02	3.63E-05	5.39E-05	0	1.73E-05	6.04E-05	0	-1.06E-02
ADPE	kg Sb eq	3.5E-04	8.16E-10	2.86E-10	0	3.9E-10	1.91E-09	0	-2.53E-04
ADPF	MJ	2.48E+02	4.39E-01	6.11E-02	0	2.1E-01	2.88E-01	0	-8.65E+01
WDP	m^3 world eq deprived	2.51E+00	6.31E-05	2.46E-02	0	3.02E-05	5.43E-02	0	-4.63E-01

GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources; WDP = Water (user) deprivation potential)

RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 piece Transom Closer RTS 87

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	4.33E+01	2.11E-03	1.7E+00	0	1.01E-03	1.04E-01	0	-3.14E+01
PERM	MJ	1.68E+00	0	-1.68E+00	0	0	0	0	0
PERT	MJ	4.49E+01	2.11E-03	1.67E-02	0	1.01E-03	1.04E-01	0	-3.14E+01
PENRE	MJ	2.37E+02	4.39E-01	6.11E-02	0	2.1E-01	9.37E+00	0	-8.65E+01
PENRM	MJ	9.08E+00	0	0	0	0	-9.08E+00	0	0
PENRT	MJ	2.46E+02	4.39E-01	6.11E-02	0	2.1E-01	2.88E-01	0	-8.65E+01
SM	kg	1.08E+00	0	0	0	0	0	0	1.82E+00
RSF	MJ	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0
FW	m^3	7.05E-02	2.57E-06	5.79E-04	0	1.23E-06	1.3E-03	0	-2.22E-01

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

RESULTS OF THE LCA – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2: 1 piece Transom Closer RTS 87

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD	kg	3.32E-06	1.35E-11	3.48E-11	0	6.47E-12	2.35E-10	0	-1.56E-07
NHWD	kg	3.21E+00	4.19E-05	6.23E-03	0	2.01E-05	5.8E-02	0	-9.23E-01
RWD	kg	3E-03	4.88E-07	3.08E-06	0	2.33E-07	9.07E-06	0	-7.38E-03
CRU	kg	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	2.78E+00	0	0
MER	kg	0	0	0	0	0	0	0	0
EEE	MJ	0	0	3E-01	0	0	8.87E-01	0	0
EET	MJ	0	0	5.45E-01	0	0	2.06E+00	0	0

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy

RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional: 1 piece Transom Closer RTS 87

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PM	Disease incidence	1.35E-06	3.17E-10	3.04E-10	0	1.52E-10	1.13E-09	0	-3.26E-07
IR	kBq U235 eq	3.56E-01	6.68E-05	4.84E-04	0	3.19E-05	9.65E-04	0	-1.41E+00
ETP-fw	CTUe	1.57E+02	3.25E-01	2.67E-02	0	1.55E-01	1.1E-01	0	-1.82E+01
HTP-c	CTUh	4.09E-03	5.87E-12	1.59E-12	0	2.81E-12	8.97E-12	0	-7.06E-07
HTP-nc	CTUh	1.45E-07	1.84E-10	3.13E-11	0	8.81E-11	6.78E-10	0	-2.3E-08
SQP	SQP	4.33E+01	1.51E-03	1.86E-02	0	7.23E-04	9.48E-02	0	-3.33E+00

PM = Potential incidence of disease due to PM emissions; IR = Potential human exposure efficiency relative to U235; ETP-fw = Potential comparative toxic unit for ecosystems; HTP-c = Potential comparative toxic unit for humans (carcinogenic); HTP-nc = Potential comparative toxic unit for humans (not carcinogenic); SQP = Potential soil quality index

Disclaimer 1 – for the indicator “Potential human exposure efficiency relative to U235”. This impact category deals mainly with the eventual impact of low-dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators “abiotic depletion potential for non-fossil resources”, “abiotic depletion potential for fossil resources”, “water (user) deprivation potential, deprivation-weighted water consumption”, “potential comparative toxic unit for ecosystems”, “potential comparative toxic unit for humans – carcinogenic”, “Potential comparative toxic unit for humans - not carcinogenic”, “potential soil quality index”. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

This EPD was created using a software tool.

References

EN 1154
DIN EN 1154: 2003-04: Building hardware – Controlled door closing devices Requirements and test methods (includes amendment A1:2002); German version / EN 1154:1996+A1:2002

EN 1634-1
DIN EN 1634-1:2018-04: Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 1: Fire resistance test for door and shutter assemblies and openable windows; German version EN 1634-1:2014+A1:2018

EN 15804
EN 15804+A2:2019+AC:2021, Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

ECHA
European Chemical Agency

ISO 14025
DIN EN ISO 14025:2011-10, Environmental labels and declarations — Type III environmental declarations — Principles and procedures

ISO 9001
DIN EN ISO 9001:2015-11: Quality management systems — Requirements

REACH
Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Further References

IBU 2022
General Instructions for the EPD programme of Institut Bauen und Umwelt e.V. Version 2.1, Berlin: Institut Bauen und Umwelt e.V., 2022. www.ibu-epd.com.

SPHERA LCA FE
Sphera LCA for Experts, LCA FE,
Software system and databases,
Managed LCA content MLC (fka GaBi database), University of Stuttgart and Sphera Solutions GmbH

MLC documentation
MLC life cycle inventory data documentation
https://lcadatabase.sphera.com/

LCA-tool dormakaba
Tool No.: IBU-DOR-202508-LT2-EN.
Developed by Sphera Solutions GmbH

PCR Part A
PCR – Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Project Report according to EN 15804+A2:2019, Version 1.4, 2024, Institut Bauen und Umwelt e.V., www.ibu-epd.com

PCR Part B
PCR – Part B: Requirements on the EPD for Building Hardware products, version 08/2021, Institut Bauen und Umwelt e.V., www.ibu-epd.com

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