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-20250258-CBA1-EN
Issue date	25/06/2025
Valid to	24/06/2030

Power Assisted Door Closer EasyAssist (Pro)

dormakaba

Institut Bauen und Umwelt e.V.

ECO PLATFORM EPD VERIFIED

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General Information

dormakaba

Programme holder

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

Declaration number

EPD-DOR-20250258-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

25/06/2025

Valid to

24/06/2030

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

Florian Pronold
(Managing Director Institut Bauen und Umwelt e.V.)

Power Assisted Door Closer EasyAssist (Pro)

Owner of the declaration

dormakaba International Holding GmbH
DORMA Platz 1
58256 Ennepetal
Germany

Declared product / declared unit

1 piece of the product: EasyAssist (Pro) consisting of the following items:

- Low energy operator
- Cover
- Smart arm
- Product packaging

Scope:

This Environmental Product Declaration refers to a specific Power Assisted Door Closer EasyAssist (Pro) manufactured by dormakaba. It is also representative for the EasyAssist. The production site is located in Ennepetal (Germany).

Green electricity with Guarantee of Origin (GoO) is being used at this production site.

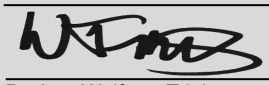
The data represents the year 2024.

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 evidences.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified 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
☐ internally ☒ externally



Dr.-Ing. Wolfram Trinius,
(Independent verifier)

Product

Product description/Product definition

dormakaba's EasyAssist (Pro) is a power-assisted door closer designed for use on fire-rated doors. It supports door widths of up to 1,400 mm and door weights of up to 200 kg. The system enables low-energy operation by reducing the force required to open the door and automatically closing it in a controlled manner.
The closing mechanism operates without hydraulic fluid, eliminating the risk of leakage and reducing maintenance requirements. Instead, a mechanical energy recovery system is used, which stores and reuses energy generated during door operation.
EasyAssist (Pro) contributes to environmentally friendly buildings by using energy recovery and reduces pollution, since it is lead-free and does not use hydraulic oil to control the closing process. It is also designed to improve accessibility and supports barrier-free building concepts in compliance with relevant standards.

For the EasyAssist (Pro), the standards which can be applied are the following:

- *EN 1154*
- *EN 1158*
- *EN 16005*
- *EN 17372 / 18263-4*
- *DIN 18040*

The CE marking takes into account the proof of conformity with the respective harmonization.

Application

The Power Assisted Door Closer can be used for following applications:

- Corporate offices
- Medical and office buildings
- Hotels
- Retail stores
- Schools
- Multi residential

Technical Data

The EasyAssist (Pro) has following technical properties:

Name	Value	Unit
	EasyAssist (Pro)	EasyAssist
Closing force	EN 3-6	Not available
Usage at standard doors	•	•
Usage at fire and smoke check doors	•	Not available
Non-handed	•	•
Usage at push and pull side	•	•
Closing force adjustable via screw	•	Not available
Visual closing force indicator	•	Not available
Adjustable closing speed in passive mode	•	Not available
SmartArm Slide Channel for door leaf mounting	•	•
Power Assist - Assisted manual door opening	•	•
Push & Go - Automatic Opening after manual Impulse	•	•
Automatic Opening through accessories	•	•
PowerClose - Assisted, controlled and silent door closing	•	•
Electric Backcheck	•	•
Electrical HoldOpen with adjustable opening angle	• (30s max. for ETA)	•
Low-Energy	•	•
Weight (Operator + SmartArm)	6.6	4.3
Size Operator Door Leaf installation (Transom installation)	440x60x72 (690x60x72)	368x60x72 (440x60x72)
Size SmartArm Door Leaf installation (Transom installation)	710x33x80 (600x23x33)	710x33x80 (600x23x33)
Temperature range	-15 bis 50°C	-15 bis 50°C

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/Ancillary materials

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

Name	Value	Unit
Steel	32	%
Zinc	21	%
Aluminium	18	%
Packaging	17	%
Electronics	5	%
Others	5	%
Plastics	2	%

The EasyAssist (Pro) includes partial articles which contain substances listed in the Candidate List of REACH Regulation *1907/2006/EC* (date: 25.01.2025) exceeding 0.1 percentage by mass: No

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

Reference service life

The reference service life of the EasyAssist (Pro) is about 10 years, depending on the application and frequency of use. For repairs and renewals, suitable spare parts are available. The EasyAssist Pro is tested and certified to *DIN 18263-4*, 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: EasyAssist (Pro) including packaging

Name	Value	Unit
Declared unit	1	piece/product
Mass of declared Product without Packaging	8.22	kg
Mass of Packaging	1.66	kg
Total mass of declared product	9.88	kg

System boundary

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 green electricity with Guarantee of Origin (GoO), as well as waste processing up to the end-of-waste state.

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.

Use stage - Module B6

The use stage related to the operation of the building includes: — B6, operational energy use.

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

Land or region, in which the declared product system is manufactured, used or handled at the end of the product´s lifespan: Global

Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to *EN 15804* and the building context, respectively the product-specific characteristics of performance, 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	0.19	kg C
Biogenic carbon content in accompanying packaging	0.61	kg C

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

Ennepetal (Germany) is considered for A3.

Transport to the building site (A4)

Name	Value	Unit
Litres of fuel	0.00276	l/100km
Transport distance	100	km
Capacity utilisation (including empty runs)	55	%
Transport distance via truck (from habor to dormakaba logistic centre)	300	km
Transport distance via ship	10000	km

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

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Reference service life

Name	Value	Unit
Life Span according to the manufacturer	10	a

Operational energy use (B6)

Name	Value	Unit
Days per year in use	365	days
Electricity consumption per 1 year	40.57	kWh
On mode per day	1.8	hours
Idle mode per day	22.2	hours
On mode power	23.52	W
Idle mode power	3.1	W

End of life (C1-C4)

C1: The product expansion depends on the building. The product share is so low that no environmental burden is assumed.
C2: Transport to waste treatment at end of life is 50 km.

Name	Value	Unit
Collected separately waste type	8.22	kg
Recycling	7.6	kg
Energy recovery	0.19	kg
Landfilling	0.43	kg

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

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

Name	Value	Unit
Recycling	100	%

Collection rate is 100 %.

LCA: Results

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	X	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 piece Low Energy Operator EasyAssist (Pro)

Parameter	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq	4.25E+01	8.64E-02	2.35E+00	2.47E+02	0	3.59E-02	1.48E+00	6.56E-03	-2.07E+01
GWP-fossil	kg CO_2 eq	4.58E+01	8.26E-02	5.9E-02	2.47E+02	0	3.43E-02	5.48E-01	6.52E-03	-2.06E+01
GWP-biogenic	kg CO_2 eq	-3.37E+00	3.82E-03	2.29E+00	1.92E-01	0	1.59E-03	9.28E-01	2.23E-05	-5.9E-02
GWP-luluc	kg CO_2 eq	3.85E-02	1.97E-06	3.87E-05	2.66E-01	0	8.18E-07	3.92E-05	1.88E-05	-6.92E-03
ODP	kg CFC11 eq	8.51E-10	8.72E-18	4.24E-16	2.02E-12	0	3.63E-18	3.84E-16	2.42E-17	-8.63E-11
AP	mol H^+ eq	2.43E-01	8.27E-05	6.59E-04	1.2E+00	0	3.44E-05	2.3E-04	4.68E-05	-9.98E-02
EP-freshwater	kg P eq	1.56E-04	1.77E-08	8.3E-08	2.77E-04	0	7.35E-09	6E-08	1.12E-08	-2.69E-05
EP-marine	kg N eq	3.59E-02	2.63E-05	2.38E-04	1.85E-01	0	1.09E-05	6.53E-05	1.2E-05	-1.28E-02
EP-terrestrial	mol N eq	3.85E-01	2.92E-04	2.97E-03	2.01E+00	0	1.22E-04	1.07E-03	1.32E-04	-1.38E-01
POCP	kg NMVOC eq	1.09E-01	7.44E-05	6.31E-04	5.43E-01	0	3.09E-05	1.79E-04	3.65E-05	-4.29E-02
ADPE	kg Sb eq	1.02E-02	2.48E-09	6.7E-09	3.95E-05	0	1.03E-09	5.52E-09	5.86E-10	-3.81E-03
ADPF	MJ	6.14E+02	1.17E+00	7.43E-01	3.46E+03	0	4.87E-01	4.5E-01	8.56E-02	-2.78E+02
WDP	m^3 world eq deprived	1.78E+01	1.62E-04	2.92E-01	5.04E+01	0	6.73E-05	1.52E-01	6.84E-04	-2.23E+00

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 Low Energy Operator EasyAssist (Pro)

Parameter	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
PERE	MJ	2.5E+02	3.69E-03	2.01E+01	8.98E+02	0	1.54E-03	6.32E+00	1.12E-02	-9.57E+01
PERM	MJ	2.61E+01	0	-1.99E+01	0	0	0	-6.22E+00	0	0
PERT	MJ	2.76E+02	3.69E-03	1.35E-01	8.98E+02	0	1.54E-03	1.02E-01	1.12E-02	-9.57E+01
PENRE	MJ	6.09E+02	1.17E+00	7.43E-01	3.46E+03	0	4.88E-01	7.34E+00	8.56E-02	-2.78E+02
PENRM	MJ	6.89E+00	0	0	0	0	0	-6.89E+00	0	0
PENRT	MJ	6.15E+02	1.17E+00	7.43E-01	3.46E+03	0	4.88E-01	4.5E-01	8.56E-02	-2.78E+02
SM	kg	2.74E+00	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0
FW	m^3	6E-01	6.62E-06	6.87E-03	1.6E+00	0	2.76E-06	3.59E-03	2.16E-05	-1.84E-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 Low Energy Operator EasyAssist (Pro)

Parameter	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
HWD	kg	7.73E-06	1.14E-10	1.1E-09	1.63E-06	0	4.73E-11	1.08E-09	1.3E-09	-4.05E-06
NHWD	kg	5.97E+00	1.2E-04	7.37E-02	1.62E+00	0	4.99E-05	6.22E-02	4.3E-01	-2.61E+00
RWD	kg	3.52E-02	1.26E-06	3.91E-05	2.89E-01	0	5.23E-07	2.08E-05	9.74E-07	-2.34E-02
CRU	kg	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	7.06E+00	0	0
MER	kg	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	3.56E+00	0	0	0	2.4E+00	0	0
EET	MJ	0	0	6.46E+00	0	0	0	4.83E+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 Low Energy Operator EasyAssist (Pro)

Parameter	Unit	A1-A3	A4	A5	B6	C1	C2	C3	C4	D
PM	Disease incidence	2.52E-06	4.35E-10	3.65E-09	1.78E-05	0	1.81E-10	1.89E-09	5.79E-10	-1.31E-06
IR	kBq U235 eq	4.94E+00	1.8E-04	6.04E-03	3.8E+01	0	7.48E-05	2.66E-03	1E-04	-4.24E+00
ETP-fw	CTUe	2.91E+02	8.3E-01	3.53E-01	1.06E+03	0	3.45E-01	1.81E-01	4.89E-02	-1.03E+02
HTP-c	CTUh	2.69E-08	1.56E-11	1.86E-11	4.26E-08	0	6.49E-12	1.39E-11	7.25E-12	2.38E-08
HTP-nc	CTUh	1.51E-06	6.68E-10	8.08E-10	1.76E-06	0	2.78E-10	1.02E-09	7.99E-10	2.99E-06
SQP	SQP	5.58E+02	3.01E-03	1.97E-01	6.54E+02	0	1.25E-03	1.3E-01	1.78E-02	-1.31E+01

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 (cancerogenic); HTP-nc = Potential comparative Toxic Unit for humans (not cancerogenic); 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 – cancerogenic”, “Potential comparative toxic unit for humans - not cancerogenic”, “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

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

DIN EN 1158
2003-04: Building hardware – Door coordinator devices Requirements and test methods (includes amendmentA1:2002); German version /EN 1158:1997 + A1:2002

EN 16005
EN 16005: 2013-01 and Amendment 2015-10 Power operated pedestrian doorsets

DIN 18263-4
DIN 18263-4:2015-04 - Locks and building hardware - Door closing devices with controlled closing sequence - Part 4: Swing door drives with self-closing function

DIN 18040
Construction of accessible buildings - Design principles

Further References

IBU 2021
General Instructions for the EPD programme of Institut Bauenund Umwelt e.V.Version 2.0, Berlin: Institut Bauen und Umwelt e.V., 2021www.ibu-epd.com

GaBi ts software
Sphera Solutions GmbH Gabi Software System and Database for Life Cycle Engineering 19922020 Version 10.0.0.71 University of Stuttgart Leinfelden-Echterdingen

GaBi ts documentation
GaBi life cycle inventory data documentation(https://www.gabisoftware.com/support/gabi/gabidatabase[1] 2020lcidocumentation/).

LCA-tool dormakaba
LCA tool, ENS (Entrance Systems Drive)

Tool No.: IBU-DOR-202108-LT1-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 1.0, InstitutBauen und Umwelt e.V., www.ibu-epd.com.

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