

Materialprüfungsamt Nordrhein-Westfalen

Prüfen • Überwachen • Zertifizieren

Certificate of constancy of performance**0432-CPR-00099-05**

Version 02

In compliance with Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 (the Construction products Regulation or CPR), this certificate applies to the construction product

**Electrically powered hold-open devices
ECO EF, ECO EFR, ECO EF BG, ECO EFR BG, ECO EF III, ECO EFR III,
ECO EF BG III, ECO EFR BG III**

for single- and double-leaf swing doors as detailed and classified on annex 2

placed on the market under the name or trade mark of

ECO Schulte GmbH & Co. KG

Iserlohner Landstraße 89
58706 Menden, Germany

and produced in the manufacturing plant(s)

DO 2.17

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in annex ZA of the standard(s)

EN 1155:1997/A1:2002/AC:2006

under **system 1** for the performance set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the

constancy of performance of the construction product.

This certificate was first issued on 28.01.2019 and will remain valid until 28.01.2024 as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

Dortmund, 01.02.2019



By order



Dipl.-Ing. Friedrich
Head of Certification Body

This Certificate consists of 1 page and 5 annex(es).

The original of this document was issued in German language.
In case of doubt only the German version is valid.



**Electrically powered hold-open device integrated in a door closer**

ECO EF, ECO EFR, ECO EF BG, ECO EFR BG,
ECO EF III, ECO EFR III, ECO EF BG III, ECO EFR BG III

Product	Manufacturer and Manufacturing plant
Door Coordinator with and without integrated hold-open device.	DO 2.17

List of Products

Type :	ECO EF, ECO EFR
Description :	Frame fixed, electrically powered hold-open devices integrated in the door closing devices.
Used door closers :	ECO TS-31, ECO TS-33, ECO TS-41, ECO TS-51, ECO TS-52, ECO-TS-61, EN 2-5, ECO-TS-61 EN 2-6, ECO-TS-61 EN 5-6 ECO-TS-62
Arm system :	Slide channel arm assembly
Mounting :	Door-leaf fixing, pull side
Size :	3 - 6
Classification :	3 8 3-6 1 1 0
Manufacturing plant :	DO 2.17
Remarks :	ECO EFR: with integrated smoke detector

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1155:1997/A1:2002/AC:2006	Performance of product
Ability to release	5.1.2 Release from every angle 5.1.3 Preventing the release 5.1.4 Voltage supply 5.1.5 Extern electrical connection 5.1.6 Inlet for external cable management 5.2.1 General 5.2.2 Electrical release 5.2.5 Hold-open angle 5.2.6 Manual disengagement 5.2.7 Continuous hold-open 5.2.8 Overload behaviour 5.2.9 Shutter release delay 5.2.10 Electrical power 5.2.11 Temperature increase 5.2.12 Damage 5.2.13 Suitability for fire-/smoke protection doors	Passed (Size 3-6) Passed (Size 3-6) 24 V/ DC; Residual ripple 30 % Passed (Size 3-6) Passed Passed Passed Passed (Size 3-6) Passed (Size 3-6) Passed (Size 3-6) Passed (Size 3-6) Passed (Size 3-6) Passed (Size 3-6) Not applicable Passed Passed (Size 3-6) Passed (Size 3-4) Class 1: Passed
Durability of the ability to release	5.2.4 Durability 5.2.14 Corrosion resistance 5.2.14.1 5.2.14.2 5.2.14.3	Class 8 (500 000 Cycles): Passed Not required Class 0 Not required Class 0 Not required Class 0
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-31</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 1-3)</p> <p>Passed (Size 1-3)</p> <p>Passed (Size 1-3)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 1-3)</p> <p>Not applicable</p> <p>Passed (Size 1-3)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-33</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 3)</p> <p>Passed (Size 3)</p> <p>Passed (Size 3)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 3)</p> <p>Not applicable</p> <p>Passed (Size 3)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-41</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-51</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-52</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Not applicable</p> <p>Not applicable</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-61</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-61</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 2-6)</p> <p>Passed (Size 2-6)</p> <p>Passed (Size 2-6)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 2-6)</p> <p>Not applicable</p> <p>Passed (Size 2-6)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-61</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 5-6)</p> <p>Passed (Size 5-6)</p> <p>Passed (Size 5-6)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 5-6)</p> <p>Not applicable</p> <p>Passed (Size 5-6)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-62</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

List of Products

Type :	ECO EF BG, ECO EFR BG
Description :	Frame fixed, electrically powered hold-open devices integrated in the door closing devices.
Used door closers :	ECO TS-31, ECO TS-33, ECO TS-41, ECO TS-51 G, ECO TS-52, ECO-TS-61 G EN 2-5, ECO-TS-61 G EN 3-6, ECO-TS-61 G EN 5-6 ECO-TS-62 G
Arm system :	Slide channel arm assembly
Mounting :	Door-leaf fixing, push side
Size :	3 - 5
Classification :	3 8 3-5 1 1 0
Manufacturing plant :	DO 2.17
Remarks :	ECO EFR: with integrated smoke detector

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1155:1997/A1:2002/AC:2006	Performance of product
Ability to release	5.1.2 Release from every angle 5.1.3 Preventing the release 5.1.4 Voltage supply 5.1.5 Extern electrical connection 5.1.6 Inlet for external cable management 5.2.1 General 5.2.2 Electrical release 5.2.5 Hold-open angle 5.2.6 Manual disengagement 5.2.7 Continuous hold-open 5.2.8 Overload behaviour 5.2.9 Shutter release delay 5.2.10 Electrical power 5.2.11 Temperature increase 5.2.12 Damage 5.2.13 Suitability for fire-/smoke protection doors	Passed (Size 3-5) Passed (Size 3-5) 24 V/ DC; Residual ripple 30 % Passed (Size 3-5) Passed Passed Passed Passed (Size 3-5) Passed (Size 3-5) Passed (Size 3-5) Passed (Size 3-5) Passed (Size 3-5) Passed (Size 3-5) Not applicable Passed Passed (Size 3-5) Passed (Size 3-5) Class 1: Passed
Durability of the ability to release	5.2.4 Durability 5.2.14 Corrosion resistance 5.2.14.1 5.2.14.2 5.2.14.3	Class 8 (500 000 Cycles): Passed Not required Class 0 Not required Class 0 Not required Class 0
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-31</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 1-3)</p> <p>Passed (Size 1-3)</p> <p>Passed (Size 1-3)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 1-3)</p> <p>Not applicable</p> <p>Passed (Size 1-3)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-33</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 3)</p> <p>Passed (Size 3)</p> <p>Passed (Size 3)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 3)</p> <p>Not applicable</p> <p>Passed (Size 3)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-41</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-51 G</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-52</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Not applicable</p> <p>Not applicable</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-61 G</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-61 G</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 3-6)</p> <p>Passed (Size 3-6)</p> <p>Passed (Size 3-6)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 3-6)</p> <p>Not applicable</p> <p>Passed (Size 3-6)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-61 G</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 5-6)</p> <p>Passed (Size 5-6)</p> <p>Passed (Size 5-6)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 5-6)</p> <p>Not applicable</p> <p>Passed (Size 5-6)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-62 G</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

List of Products

Type : ECO EF III
Description : Frame fixed, electrically powered hold-open devices integrated in the door closing devices.
Used door closers : ECO TS-31, ECO TS-33, ECO TS-41, ECO TS-51, ECO TS-52, ECO-TS-61 EN 2-5, ECO-TS-61 EN 3-6, ECO-TS-61 EN 5-6 ECO-TS-62
Arm system : Slide channel arm assembly
Mounting : Door-leaf fixing, pull side
Size : 3 - 6
Classification : 3 8 3-6 1 1 2
Manufacturing plant : DO 2.17
Remarks :

Type : ECO EFR III
Description : Frame fixed, electrically powered hold-open devices integrated in the door closing devices.
Used door closers : ECO TS-31, ECO TS-33, ECO TS-41, ECO TS-51, ECO TS-52, ECO-TS-61 EN 2-5, ECO-TS-61 EN 3-6, ECO-TS-61 EN 5-6 ECO-TS-62
Arm system : Slide channel arm assembly
Mounting : Door-leaf fixing, pull side
Size : 3 - 6
Classification : ECO EFR III 3 8 3-6 1 1 0
Manufacturing plant : DO 2.17
Remarks : ECO EFR III: with integrated smoke detector

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

<i>Essential characteristics</i>	<i>Clauses with requirements in EN 1155:1997/A1:2002/AC:2006</i>	<i>Performance of product</i>
<i>Ability to release</i>	5.1.2 Release from every angle 5.1.3 Preventing the release 5.1.4 Voltage supply 5.1.5 Extern electrical connection 5.1.6 Inlet for external cable management 5.2.1 General 5.2.2 Electrical release 5.2.5 Hold-open angle 5.2.6 Manual disengagement 5.2.7 Continuous hold-open 5.2.8 Overload behaviour 5.2.9 Shutter release delay 5.2.10 Electrical power 5.2.11 Temperature increase 5.2.12 Damage 5.2.13 Suitability for fire-/smoke protection doors	Passed (Size 3-6) Passed (Size 3-6) 24 V/ DC; Residual ripple 30 % Passed (Size 3-6) Passed Passed Passed Passed (Size 3-6) Passed (Size 3-6) Passed (Size 3-6) Passed (Size 3-6) Passed (Size 3-6) Not applicable Passed Passed (Size 3-6) Passed (Size 3-6) Class 1: Passed
<i>Durability of the ability to release</i>	5.2.4 Durability ECO EF III 5.2.14 Corrosion resistance 5.2.14.1 5.2.14.2 5.2.14.3 ECO EFR III 5.2.14 Corrosion resistance 5.2.14.1 5.2.14.2 5.2.14.3	Class 8 (500 000 Cycles): Passed Class 2: Passed Class 2: Passed Class 2: Passed Not required Class 0 Not required Class 0 Not required Class 0
<i>Dangerous substances</i>	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-31</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 1-3)</p> <p>Passed (Size 1-3)</p> <p>Passed (Size 1-3)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 1-3)</p> <p>Not applicable</p> <p>Passed (Size 1-3)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-33</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 3)</p> <p>Passed (Size 3)</p> <p>Passed (Size 3)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 3)</p> <p>Not applicable</p> <p>Passed (Size 3)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-41</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-51</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-52</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Not applicable</p> <p>Not applicable</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-61</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-61</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 2-6)</p> <p>Passed (Size 2-6)</p> <p>Passed (Size 2-6)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 2-6)</p> <p>Not applicable</p> <p>Passed (Size 2-6)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-61</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 5-6)</p> <p>Passed (Size 5-6)</p> <p>Passed (Size 5-6)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 5-6)</p> <p>Not applicable</p> <p>Passed (Size 5-6)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-62</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, pull side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed</p> <p>Class 4: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

List of Products

Type : ECO EF BG III
Description : Frame fixed, electrically powered hold-open devices integrated in the door closing devices.
Used door closers : ECO TS-31, ECO TS-33, ECO TS-41, ECO TS-51 G, ECO TS-52
ECO-TS-61 G EN 2-5, ECO-TS-61 G EN 3-6, ECO-TS-61 G EN 5-6
ECO-TS-62 G
Arm system : Slide channel arm assembly
Mounting : Door-leaf fixing, push side
Size : 3 - 5
Classification : ECO EF BG III: 3 8 3-5 1 1 2
Manufacturing plant : DO 2.17
Remarks :

Type : ECO EFR BG III
Description : Frame fixed, electrically powered hold-open devices integrated in the door closing devices.
Used door closers : ECO TS-31, ECO TS-33, ECO TS-41, ECO TS-51 G, ECO TS-52
ECO-TS-61 G EN 2-5, ECO-TS-61 G EN 3-6, ECO-TS-61 G EN 5-6
ECO-TS-62 G
Arm system : Slide channel arm assembly
Mounting : Door-leaf fixing, push side
Size : 3 - 5
Classification : ECO EFR BG III 3 8 3-5 1 1 0
Manufacturing plant : DO 2.17
Remarks : ECO EFR BG III: with integrated smoke detector

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

<i>Essential characteristics</i>	<i>Clauses with requirements in EN 1155:1997/A1:2002/AC:2006</i>	<i>Performance of product</i>
<i>Ability to release</i>	5.1.2 Release from every angle 5.1.3 Preventing the release 5.1.4 Voltage supply 5.1.5 Extern electrical connection 5.1.6 Inlet for external cable management 5.2.1 General 5.2.2 Electrical release 5.2.5 Hold-open angle 5.2.6 Manual disengagement 5.2.7 Continuous hold-open 5.2.8 Overload behaviour 5.2.9 Shutter release delay 5.2.10 Electrical power 5.2.11 Temperature increase 5.2.12 Damage 5.2.13 Suitability for fire-/smoke protection doors	Passed (Size 3-5) Passed (Size 3-5) 24 V/ DC; Residual ripple 30 % Passed (Size 3-5) Passed Passed Passed Passed (Size 3-5) Passed (Size 3-5) Passed (Size 3-5) Passed (Size 3-5) Passed (Size 3-5) Not applicable Passed Passed (Size 3-5) Passed (Size 3-5) Class 1: Passed
<i>Durability of the ability to release</i>	5.2.4 Durability ECO EF BG III 5.2.14 Corrosion resistance 5.2.14.1 5.2.14.2 5.2.14.3 ECO EFR BG III 5.2.14 Corrosion resistance 5.2.14.1 5.2.14.2 5.2.14.3	Class 8 (500 000 Cycles): Passed Class 2: Passed Class 2: Passed Class 2: Passed Not required Class 0 Not required Class 0 Not required Class 0
<i>Dangerous substances</i>	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-31</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 1-3)</p> <p>Passed (Size 1-3)</p> <p>Passed (Size 1-3)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 1-3)</p> <p>Not applicable</p> <p>Passed (Size 1-3)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-33</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 3)</p> <p>Passed (Size 3)</p> <p>Passed (Size 3)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 3)</p> <p>Not applicable</p> <p>Passed (Size 3)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-41</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-51 G</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed (Size 1-4)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Passed (Size 1-4)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p> <p>Class 3 (96h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-52</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Not applicable</p> <p>Not applicable</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-61 G</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed (Size 2-5)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Passed (Size 2-5)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-61 G</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 3-6)</p> <p>Passed (Size 3-6)</p> <p>Passed (Size 3-6)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 3-6)</p> <p>Not applicable</p> <p>Passed (Size 3-6)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

Intended use:

For single and double leaf fire- and/or smoke protection swingdoors

Essential characteristics	Clauses with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of product
Self-closing	<p>ECO TS-61 G</p> <p>5.2.1 General</p> <p>5.2.3 Closing torque</p> <p>5.2.4 Opening torque</p> <p>5.2.5 Efficiency</p> <p>5.2.6 Closing time</p> <p>5.2.7 Opening angle</p> <p>Door-leaf fixing, push side</p> <p>5.2.8 Overload test</p> <p>5.2.9 Temperature dependence</p> <p>5.2.10 Leakage</p> <p>5.2.11 Damage</p> <p>5.2.12 Latch regulation</p> <p>5.2.13 Back check</p> <p>5.2.14 Delayed action</p> <p>5.2.15 Adjustable force</p> <p>5.2.16 Free play at zero position</p> <p>5.2.18 Use of fire-/ smoke protection doors</p>	<p>Passed</p> <p>Passed (Size 5-6)</p> <p>Passed (Size 5-6)</p> <p>Passed (Size 5-6)</p> <p>Passed</p> <p>Class 3: Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed</p> <p>Passed (Size 5-6)</p> <p>Not applicable</p> <p>Passed (Size 5-6)</p> <p>Not applicable</p> <p>Class 1: Passed</p>
Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

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Durability Self-closing	<p>5.2.2 Durability</p> <p>5.2.17.1 Corrosion resistance</p> <p>5.2.17.2 Corrosion resistance</p> <p>5.2.17.3 Corrosion resistance</p>	<p>Class 8 (500 000 Cycles):Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p> <p>Class 4 (240h): Passed</p>
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.