

DORMA ITS96 EN 2-4 CAM ACTION DOOR CLOSER

This folder contains all technical documentation detailing the compliance of the DORMA ITS96 Cam Action EN2-4 Slide Arm Door Closer complies with the technical and product requirements contained within United Kingdom Building Regulations and Construction Product Regulations 1991.

Contents

1. Declaration of Performance

The ITS96 is CE marked to BS EN1154

2. EN1154 Certificate of Constancy of Performance

The ITS96 has been successfully independently third party tested to BS EN1154

3. Certifire Certificate CF140

The ITS96 is Certifire Approved as per enclosed Certificate and is suitable for the following applications:-

- a) Timber doors of up to 30 minutes fire resistance when installed on doors with a minimum thickness of 44mm with 30 minute intumescent pack
- b) Timber doors of up to 60 minutes fire resistance when installed on doors with a minimum thickness of 54mm with 60 minute intumescent pack
- c) Insulated or un-insulated steel doors of up to 4 hours fire resistance

4. Torque Curve to demonstrate compliance with requirements of ADM and BS8300

The ITS96 when fitted to size EN3 (Minimum size for a fire door) will exert an opening force of 30N or less between 0 and 30 degrees and 22.5N or less between 30 and 60 degrees of opening when applied to doors 733mm wide or above.

Technical Specification

DORMA ITS96 EN2-4 Cam Action Door Closer with linear drive and rapidly decreasing opening resistance/torque, adjustable closing speed in two independent ranges, closing force infinitely variable between EN2-4, Non Handed, CE Marked to BS EN1154 and Certifire Certificated CF140.

Once the ITS96 Door Closer has been fitted and adjusted accordingly this document can be passed to Building Control to demonstrate compliance with UK Building Regulations and to the 'responsible person' of the Building owner/occupier for use in respect of RR(FS)O requirements.

LEISTUNGSERKLÄRUNG

DECLARATION OF PERFORMANCE

DOP_0003

EN EU Nr. 305/2011 Declaration of Performance

- Unique identification code of the product-type: Controlled door closing devices **DORMA TS 97 EN 2-4**
- Intended use/es: On fire and smoke compartmentation doors to fulfil the self closing requirements of such doors.
- Manufacturer: dormakaba Deutschland GmbH - DORMA Platz 1 - 58256 Ennepetal
- System/s of assessment and verification of constancy of performance (AVCP): System 1
- Harmonised standard: EN 1154: 1996/A1: 2002/AC: 2006
- Notified body/ies: MPA NRW 0432
- Declared performance/s:

Essential characteristic	Performance	Harmonised technical specification
Self-closing	<ul style="list-style-type: none"> ▪ Closing doors from $\geq 105^\circ$ open grade 3 ▪ Door closer power size EN 2-4 ▪ Suitability for fire/smoke door use grade 1 ▪ Safety grade 1 ▪ Temperature dependence $+40^\circ\text{C}$ and -15°C: $\geq 3\text{s}$ $\leq 25\text{s}$ ▪ Latch control ▪ Adjustable closing force 	EN 1154: 1996/A1: 2002/AC: 2006
Durability of self-closing	<ul style="list-style-type: none"> ▪ Durability 500000 cycles grade 8 ▪ Very high corrosion resistance grade 4 	
Dangerous substances	<ul style="list-style-type: none"> ▪ Substances of very high concern < threshold values 	

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Ennepetal 03.11.2016



Michael Hensel

Senior Vice President
Access Solutions DACH

Materialprüfungsamt Nordrhein-Westfalen

Prüfen · Überwachen · Zertifizieren

Certificate of constancy of performance**0432-CPR-00026-31**

Version 01

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

overhead door closer ITS 96 and TS 97

Controlled door closing devices for single and double leaf swing doors
according to the composition and classification in annex 1

placed on the market under the name or trade mark of

dormakaba Deutschland GmbH

DORMA Platz 1
58256 Ennepetal
Germany

and produced in the manufacturing plant(s)

DO 2.1

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

EN 1154:1996/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 02.09.2019 and will remain valid until 02.09.2024 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, 2nd September 2019



By order

T. Friedrich
Head of Certification Body

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

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



Materialprüfungsamt Nordrhein-Westfalen

Prüfen · Überwachen · Zertifizieren

List of Products

Type : „ITS 96 EN 3-6“
Description : In door-leaf (upper secondary closing edge) embedded door closer with hydraulic damping.
Arm system : Slide channel arm assembly
Installation : Fixing in the door-leaf according to manufacturer specifications
Size : 3 - 6
Classification : 3 8 3 - 6 1 1 4
Manufacturing plant : DO 2.1

Type : „ITS 96 EN 2-4“
Description : In door-leaf (upper secondary closing edge) embedded door closer with hydraulic damping.
Arm system : Slide channel arm assembly
Installation : Fixing in the door-leaf according to manufacturer specifications
Size : 2 - 4
Classification : 3 8 2 - 4 1 1 4
Manufacturing plant : DO 2.1

Remarks: optionally with:

- short or elongated axis (4mm or 8mm).
- dormakaba mounting plate for optional mounting on tube frame doors
- dormakaba sliding arm L=250mm (DIN L or DIN R), mounting distance A=130 mm
- dormakaba slide channel arm assembly G96N with sliding rail 31 mm * 20 mm , arm length 375 mm
- dormakaba mounting kit BZ 1 or BZ 2 for G96N to adjust the height of the fixing elements of the sliding rail in the frame of profile door in a range of 15 to 24 mm.
- dormakaba slide channel arm assembly G96N 20 with sliding rail 20 mm * 12 mm, opening limitation and an arm length of 375 mm
- dormakaba mounting kit for G96 N for steel doors
- dormakaba mounting kit for G96 N for wooden doors

For the use on fire- and smoke doors the door closer has to be adjusted min. to size 3.

Materialprüfungsamt Nordrhein-Westfalen

Prüfen · Überwachen · Zertifizieren

Intended use:

On single- and double-leaf fire- and/or smoke-protection swing doors

Essential property	Sections with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of the product
Self-closing	ITS 96 EN 3-6 5.2.1 General 5.2.3 Closing torque 5.2.4 Opening torque 5.2.5 Efficiency 5.2.6 Closing time 5.2.7 Opening angle 5.2.8 Overload behaviour 5.2.9 Temperature dependence 5.2.10 Leaking 5.2.11 Damage 5.2.12 Latch 5.2.13 Back check 5.2.14 Delayed action 5.2.15 Adjustable closing force 5.2.16 Play at zero position 5.2.18 Suitability for fire-/smoke-protection doors	Passed Passed (Size 3-6) Passed (Size 3-6) Passed (Size 3-6) Passed (Size 3-6) Passed (Class 3) ^{*1)} 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 Not applicable Passed (Size 3-6) Not applicable Passed (Class 1)
Durability of self-closing	5.2.2 Durability 5.2.17.1 Corrosion resistance 5.2.17.2 Corrosion resistance 5.2.17.3 Corrosion resistance	Passed Class 8 (500 000 Cycles) Passed Class 4 (240h) Passed Class 4 (240h) Passed Class 4 (240h)
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

^{*1)} opening limitation is required.

Materialprüfungsamt Nordrhein-Westfalen

Prüfen · Überwachen · Zertifizieren

Intended use:

On single- and double-leaf fire- and/or smoke-protection swing doors

Essential property	Sections with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of the product
Self-closing	ITS 96 EN 2-4 5.2.1 General 5.2.3 Closing torque 5.2.4 Opening torque 5.2.5 Efficiency 5.2.6 Closing time 5.2.7 Opening angle 5.2.8 Overload behaviour 5.2.9 Temperature dependence 5.2.10 Leaking 5.2.11 Damage 5.2.12 Latch 5.2.13 Back check 5.2.14 Delayed action 5.2.15 Adjustable closing force 5.2.16 Play at zero position 5.2.18 Suitability for fire-/smoke-protection doors	Passed Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Passed (Class 3 ^{*1}) Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Not applicable Not applicable Passed (Size 2-4) Not applicable Passed (Class 1)
Durability of self-closing	5.2.2 Durability 5.2.17.1 Corrosion resistance 5.2.17.2 Corrosion resistance 5.2.17.3 Corrosion resistance	Passed Class 8 (500 000 Cycles) Passed Class 4 (240h) Passed Class 4 (240h) Passed Class 4 (240h)
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

*¹) opening limitation is required

Materialprüfungsamt Nordrhein-Westfalen

Prüfen · Überwachen · Zertifizieren

List of Products

Type :	„TS 97 EN 2-4“
Description :	overhead door closer with hydraulic damping.
Arm system :	Slide channel arm assembly
Installation :	door leaf fixing on the opening side of the door frame fixing on the closing side of the door
Size :	2 - 4
Classification :	3 8 2-4 1 1 3
Manufacturing plant :	DO 2.1
Remarks:	For the use on fire- and smoke doors the door closer has to be adjusted min. to size 3.

Intended use:

On single- and double-leaf fire- and/or smoke-protection swing doors

Essential property	Sections with requirements in EN 1154:1996/A1:2002/AC:2006	Performance of the product
Self-closing	TS 97 EN 2-4 5.2.1 General 5.2.3 Closing torque 5.2.4 Opening torque 5.2.5 Efficiency 5.2.6 Closing time 5.2.7 Opening angle door leaf fixing on the opening side of the door frame fixing on the closing side of the door 5.2.8 Overload behaviour 5.2.9 Temperature dependence 5.2.10 Leaking 5.2.11 Damage 5.2.12 Latch 5.2.13 Back check 5.2.14 Delayed action 5.2.15 Adjustable closing force 5.2.16 Play at zero position 5.2.18 Suitability for fire-/smoke-protection doors	Passed Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Passed (Class 3) ^{*1)} Passed (Class 3) ^{*1)} Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Passed (Size 2-4) Not applicable Not applicable Passed (Size 2-4) Not applicable Passed (Class 1)
Durability of self-closing	5.2.2 Durability 5.2.17.1 Corrosion resistance 5.2.17.2 Corrosion resistance 5.2.17.3 Corrosion resistance	Passed Class 8 (500 000 Cycles) Passed Class 3 (96h) Passed Class 3 (96h) Passed Class 3 (96h)
Dangerous substances	Annex ZA.3	The manufacturer has not declared any dangerous substances.

*1) opening limitation is required



CERTIFICATE OF APPROVAL
No CF 140

This is to certify that, in accordance with
TS00 General Requirements for Certification of Fire Protection Products
The undermentioned products of

DORMA UK LIMITED

Wilbury Way, Hitchin, Hertfordshire SG4 0AB
Tel: 01462 477600 Fax: 01462 477601

Have been assessed against the requirements of the Technical Schedule(s)
denoted below and are approved for use subject to the conditions
appended hereto:

CERTIFIED PRODUCT
DORMA ITS 96 Concealed
Overhead Mounted Door Closers

TECHNICAL SCHEDULE
TS34 – The Contribution
of Controlled Door Closing
Devices and Accessories to
Fire Resisting Doorsets

Signed and sealed for and on behalf of Warringtonfire Testing and Certification Limited

Paul Duggan
Certification Manager



Issued: 16th October 1995
Revised: 14th March 2019
Valid to: 15th November 2020



CERTIFICATE No CF 140 DORMA UK LIMITED

DORMA ITS 96 CONCEALED OVERHEAD MOUNTED DOOR CLOSERS

1. Dorma ITS 96 (2-4), ITS 96 (3-6) and ITS 96 FL (3-6) are single-action concealed overhead mounted door closing devices, with adjustable power. The closer includes an external power adjustment and a slide arm channel of maximum length 527 mm. The approval applies to the following configurations:

	ITS 96 (2-4)	ITS 96 (3-6)	ITS 96FL (3-6)
Single-action	✓	✓	✓
Double-action	✗	✗	✗
Body door mounted in top edge	✓	✓	✓
Body transom mounted	✗	✗	✗

Key: ✓ - approved ✗ - Not approved

2. This approval relates to their use with the following door assemblies:-

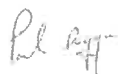
Single-acting, latched or unlatched, intumescent sealed door assemblies consisting of timber faced and edged leaves with timber, cellulosic or mineral cores in timber frames having a fire resistance of 20, 30 or 60 minutes (Code ITT)*.

Single-acting, latched or unlatched, door assemblies consisting of metallic faced and edged leaves with mineral fibre or paper honeycomb cores in metal frames having a fire resistance up to 240 minutes (Code MM and IMM).**

* The ITS 96 (3-6) and ITS 96 FL (3-6) closers are only approved for use with ITT 20 and ITT 30 door assemblies with a minimum door leaf thickness of 54 mm.

** The ITS 96 FL is not approved for use with MM/IMM doorsets.

3. This certification is provided to the client for their own purposes and we cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose.





CERTIFICATE No CF 140

DORMA UK LIMITED

DORMA ITS 96 CONCEALED OVERHEAD MOUNTED DOOR CLOSERS

4. The closer is approved on the basis of:
- Initial type testing to EN1154 and BS EN 1634-1: 2000
 - An appraisal against TS34
 - Inspection of quality management system
 - Inspection and surveillance of factory production control
 - Ongoing audit testing in accordance with EN 1154 requirements
5. This approval is applicable only to the specified closers used with door assemblies of proven fire resistance (as defined in BS 476: Part 22 and EN 1634-1) and having power ratings appropriate to the leaf sizes subject to a minimum size 3 (as specified in BS EN 1154) and including the manufacturer's supplied intumescent protection kit. Failure to install the intumescent protection identified in section 8 will invalidate this certificate.
6. The closer shall only be fitted to doorsets which have previously been shown capable of accommodating the installation of similar concealed items at the head of the doorset, without detriment to the doorset's performance.
7. The approval relates to on-going production. Product and/or its immediate packaging is identified with the manufacturer's name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate
8. This approval relates to the above closers used with latched or unlatched single-leaf or double-leaf, assemblies consisting of timber faced and edged leaves with timber, cellulosic or mineral cores and in timber frames:
- ITS 96 (2-4), ITS 96 (3-6) and ITS 96FL (3-6) closers and G 96 N20 and G 96 N slide channels, are approved for **20 or 30 minutes**, single-action doorsets of the following specification (Code ITT):
 - Door leaves shall not be less than 44 mm thick doors for size 2-4 units, and 54 mm thick doors for size 3-6 and ITS 96 FL units.
 - The door frame shall consist of softwood or hardwood with a minimum density of 510 kg/m³ and with a minimum section size of 32 mm thick (excluding the stop).
 - The closer shall be fitted with intumescent protection in the form of Mono ammonium phosphate sheet material as follows:
 - 1 mm thickness fully lining the mortices cut into the top edge of the door leaf to accommodate the closer body and behind the closer faceplate.
 - 1 mm thickness fully lining the mortice cut into the frame head member to accommodate the slide channel assembly.

Page 3 of 8 Signed
C/014

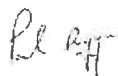
Issued: 16th October 1995
Revised: 14th March 2019
Valid to: 15th November 2020

CERTIFICATE No CF 140

DORMA UK LIMITED

DORMA ITS 96 CONCEALED OVERHEAD MOUNTED DOOR CLOSERS

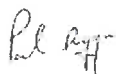
- b. ITS 96 (2-4) and ITS 96 (3-6) closers and G 96 EMF slide channels, are approved for **20 or 30 minutes** single-action doorsets of the following specification (Code ITT):
- i. Door leaves shall not be less than 44 mm thick doors for size 2-4 units, and 54 mm thick doors for size 3-6.
 - ii. The door frame shall consist of softwood or hardwood with a minimum density of 510 kg/m³ and with a minimum section size of 34 mm thick (excluding the stop)
 - iii. The closer shall be fitted with intumescent protection in the form of Mono ammonium phosphate sheet material as follows:
 - 1 mm thickness fully lining the mortice cut into the top edge of the door leaf to accommodate the closer body and behind the closer faceplate.
 - 2 mm thickness fully lining the mortice cut into the frame head member to accommodate the slide channel assembly.
- c. ITS 96 (2-4), ITS 96 (3-6) and ITS 96FL (3-6) closers and G 96 N20 and G 96 N slide channels, are approved for **60 minutes** single-action doorsets of the following specification (Code ITT):
- i. Door leaves shall not be less than 54 mm thick doors.
 - ii. The door frame shall consist of hardwood with a minimum density of 640 kg/m³ and with a minimum section size of 32 mm thick (excluding the stop).
 - iii. The closer shall be fitted with intumescent protection in the form of Mono ammonium phosphate sheet material as follows:
 - 1 mm thickness fully lining the mortices cut into the top edge of the door leaf to accommodate the closer body and behind the closer faceplate.
 - 2 mm thickness fully lining the mortice cut into the frame head member to accommodate the slide channel assembly.
 - iv. In addition the perimeter intumescent fire seals within the door or frame shall by-pass the slide channel by a minimum of 10mm on the opening side of the rebate.



CERTIFICATE No CF 140 DORMA UK LIMITED

DORMA ITS 96 CONCEALED OVERHEAD MOUNTED DOOR CLOSERS

- d. ITS 96 (2-4) and ITS 96 (3-6) closers, and G 96 EMF slide channels, are approved for **60 minutes** single-action doorsets of the following specification (Code ITT):
- i. Door leaves shall be not less than 54 mm thick doors
 - ii. The door frame shall consist of hardwood with a minimum density of 640 kg/m³ and with a minimum section size of 34 mm thick (excluding the stop)
 - iii. The closer shall be fitted with intumescent protection in the form of Mono ammonium phosphate sheet material as follows:
 - 1 mm thickness fully lining the mortice cut into the top edge of the door leaf to accommodate the closer body and behind the closer faceplate.
 - 2 mm thickness fully lining the mortice cut into the frame head member to accommodate the slide channel assembly.
 - iv. In addition the perimeter intumescent fire seals within the door or frame shall by-pass the closer or guide rail by a minimum of 10mm on each side.
9. This approval relates to the above closers used with latched or unlatched single-leaf or double-leaf, assemblies consisting of metallic faced and edged leaves with mineral fibre or paper honeycomb cores in metal frames:
- e. ITS 96 (2-4) and ITS 96 (3-6) closers, and G 96 N20 and G 96 N slide channels, are approved for single-action doorsets up to **240 minutes** of the following specification (Code MM/IMM):
- i. Door leaves shall not less than 45 mm thick doors for size 2-4 units, and 54 mm thick doors for size 3-6 units.
 - ii. No additional intumescent protection required



CERTIFICATE No CF 140 DORMA UK LIMITED

DORMA ITS 96 CONCEALED OVERHEAD MOUNTED DOOR CLOSERS

10. The following table shows acceptable doorset types and fire resistance periods:

Class	Approved Door Type				
	IMM	MM	ITT	ITM	ITC
FD20	✓**	✓*	✓**	✗	✗
FD30	✓*	✓*	✓**	✗	✗
FD60	✓*	✓*	✓	✗	✗
FD120	✓*	✓*	✗	✗	✗
FD240	✓*	✓*	✗	✗	✗
E 20	✓*	✓*	✓**	✗	✗
EI 20	✓*	✓*	✓**	✗	✗
E 30	✓*	✓*	✓**	✗	✗
EI 30	✓*	✓*	✓**	✗	✗
E 60	✓*	✓*	✓	✗	✗
EI 60	✓*	✓*	✓	✗	✗
E 90	✓*	✓*	✗	✗	✗
EI 90	✓*	✓*	✗	✗	✗
E 120	✓*	✓*	✗	✗	✗
EI 120	✓*	✓*	✗	✗	✗
E 240	✓*	✓*	✗	✗	✗
EI 240	✓*	✓*	✗	✗	✗

Key:

✓ - approved

✗ - Not approved

✓* - The ITS 96 FL is not approved for use with MM/IMM doorsets.

✓** - The ITS 96 (3-6) and ITS 96 FL (3-6) closers are only approved for use with ITT20 and ITT30 door assemblies with a minimum door leaf thickness of 54 mm.

CERTIFICATE No CF 140 DORMA UK LIMITED

DORMA ITS 96 CONCEALED OVERHEAD MOUNTED DOOR CLOSERS

Scope of Approval

- The following specific slide channels and applications are approved for use with the ITS 96 concealed closers:

Product reference	Application		
	ITT20/30	ITT60	MM/IMM240
G 96 N20 (440 mm long x 20 mm wide x 12 mm deep)	✓	✓	✓
G 96 N (440 mm long x 31 mm wide x 20 mm deep)	✓	✓	✓
G 96 EMF (527 mm long x 31 mm wide x 30 mm deep)	✓	✓	✗

Key: ✓ - approved ✗ - Not approved

- The closer may not be fitted to timber/mineral-based doorsets without intumescent protection.
- Hold open option is not approved.
- The ITS 96 (3-6) and ITS 96 FL (3-6) closers are only approved for use with ITT 20 or ITT 30 door assemblies with a minimum door leaf thickness of 54 mm.
- The ITS 96 FL free-swung closer is not approved for use with MM/IMM doorsets.

Classification code

The above approval provides the following classifications:

ITS 96 (2-4):

3	8	4 3	1	1	4
---	---	--------	---	---	---

ITS 96 (3-6):

3	8	6 3	1	1	4
---	---	--------	---	---	---

ITS 96 FL (3-6):

3	8	6 3	1	1	4
---	---	--------	---	---	---

PL 014



CERTIFICATE No CF 140
DORMA UK LIMITED

DORMA ITS 96 CONCEALED OVERHEAD MOUNTED DOOR CLOSERS

Further Information

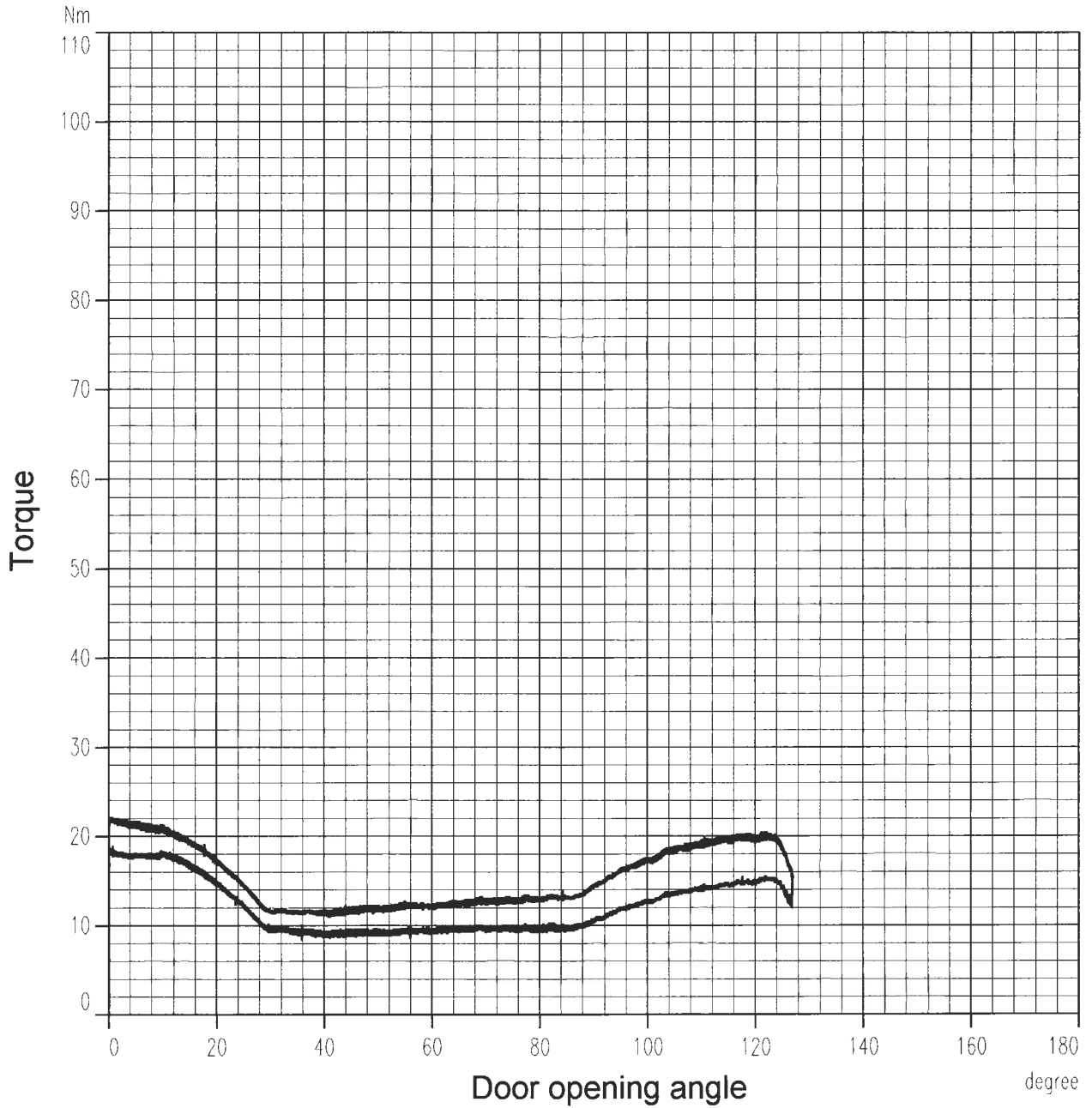
Further information regarding the details contained in this data sheet may be obtained from Dorma UK Limited (Tel: 01462 477600).

Further information regarding CERTIFIRE certification and other approved products can be obtained from CERTIFIRE (Tel: 01925 646777).

Page 8 of 8 Signed
C/014

Issued: 16th October 1995
Revised: 14th March 2019
Valid to: 15th November 2020

Torque curve



Controlled door closing device EN 1154

Manufacturer: DORMA
Model: ITS 96 EN 2-4
Sample: B 1
Size: 3
5000 Cycles

Standard installation

20.10.2005

Kuus

