

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-21/0164
of 14 September 2021

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

"H60-1 OD" and "H60-2 OD"

Product family
to which the construction product belongs

Internal fire resisting and/or smoke control single and
double leaf doorsets made of steel

Manufacturer

HÖRMANN KG Freisen
Bahnhofstraße 43
66629 Freisen
DEUTSCHLAND

Manufacturing plant

HÖRMANN KG Freisen
Bahnhofstraße 43
66629 Freisen
DEUTSCHLAND

This European Technical Assessment
contains

17 pages including 12 annexes which form an integral
part of this assessment

This European Technical Assessment is
issued in accordance with Regulation (EU)
No 305/2011, on the basis of

EAD 020029-00-1102

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Specific part

1 Technical description of the product

The subject of this European technical assessment are internal pedestrian fire resisting and/or smoke control single leaf doorsets "H60-1 OD" and double leaf doorsets "H60-2 OD" - made of steel.

The products with the classification EI₂ 60-C5 S_a and EI₂ 60-C5 S₂₀₀ involve those which are used manually, opening and self-closing as a normal mode of operation. They can also be normally held open but self-close in the event of fire or smoke.

The fire resisting and/or smoke control doorsets shall be designed:

- using steel plates featuring fire-resistant inlays
- with building hardware,
- with or without any vision panel(s) in the doorsets leaf or leaves,
- with a three-sided permanently elastic seal and a permanently elastic middle rebate seal additionally in the event of double leaf doorsets (for fire resistance),
- with a three-sided permanently elastic seal and a permanently elastic middle rebate seal additionally in the event of double leaf doorsets in conjunction with a soil liner (for smoke control).

The system setup is given in Annexes 1 to 12.

2 Specification of the intended use in accordance with the applicable European Assessment Document

Fire resisting and/or smoke control doorsets are used internally as closures in fire resisting walls and/or for escape routes. The products can be used as internal fire resisting and/or smoke control single and double leaf doorsets in internal walls.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the fire resisting and/or smoke control doorsets at least 15 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

The performances given in Section 3 are only valid if the products are used in compliance with the specifications and conditions given in Annexes 1 to 12.

3 Performance of the product and references to the methods used for its assessment

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire of components acc. to EN 13501-1	Steel plate A1
	Insulation A1
	Glazing A2 to E
	Gypsum plaster board A2
	Sealing B2
	Intumescent material B1 to E
Resistance to fire acc. to EN 13501-2	El ₂ 60
Smoke control acc. to EN 13501-2	S _a /S ₂₀₀

3.2 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Self-closing acc. to EN 13501-2	C
Ability to release	"released"
Durability of the ability to release	"release maintained"
Durability of self-closing against degradation (cycling testing) acc. to EN 13501-2	5
Durability of self-closing against ageing (corrosion)	"achieved"
Impact resistance acc. to EN 13049	No performance assessed
Strength requirements	No performance assessed

3.3 Protection against noise (BWR 5)

Essential characteristic	Performance
Direct airborne sound insulation index acc. to EN ISO 717-1....	single leaf doorset Rw (C; Cw) = 33 (-4;-5) to Rw (C; Cw) = 47 (-2;-9)
	double leaf doorset Rw (C; Cw) = 38 (-2;-5) to Rw (C; Cw) = 44 (-4;-9)

The products have been used only with a special inlay¹.

3.4 Sustainable use of natural resources (BWR 7)

For the sustainable use of natural resources no performance was investigated for this product.

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with EAD No. 020029-00-1102, the applicable European legal act is: 1999/93/EU.

The system to be applied is: 1

¹ DRS Sandwich Fire Board BSS 28064 (total thickness 64 mm, 28 kg/m², bulk density 185 kg/m³, with plaster inlay 25 mm (bulk density without plaster))

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 14 September 2021 by Deutsches Institut für Bautechnik

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Head of Section

beglaubigt:
Holger Fritzsche

"H60-1 OD" and "H60-2 OD"

Annex 1

El₂ 60-C5 S_a and El₂ 60-C5 S₂₀₀

Annexes 2 to 12 contains internal single leaf doorsets "H60-1 OD" or double leaf doorsets "H60-2 OD" (pivot doorsets) with the classification El₂ 60-C5 S_a and El₂ 60-C5 S₂₀₀.

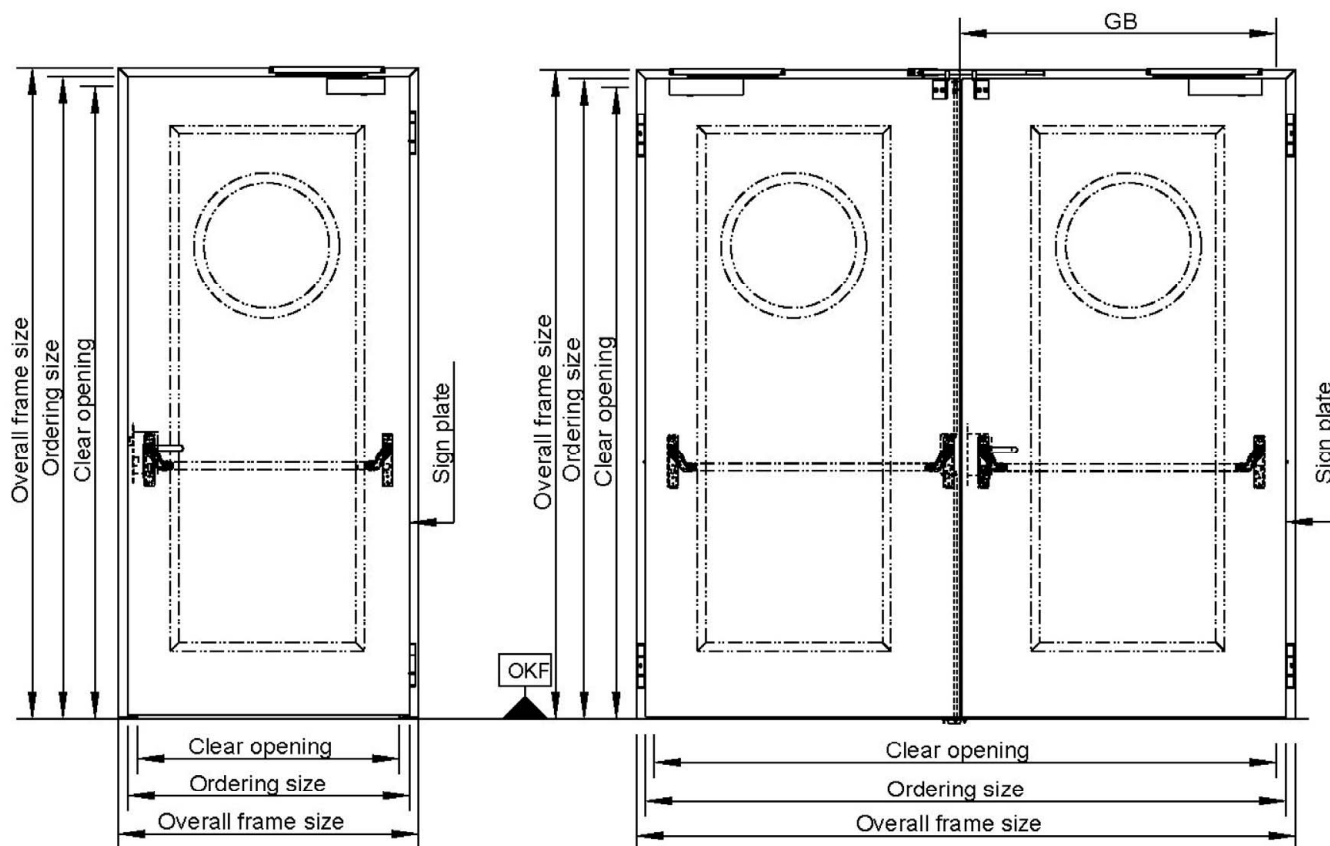
The fire resisting and/or smoke control doorsets are made of steel plates and fire-resistant inlays with building hardware. They may be designed with or without any vision panel(s) in the doorsets leaf or leave(s).

Fire resisting doorsets are made with a three-sided permanently elastic seal and a permanently elastic middle rebate seal additionally in the event of double leaf doorsets.

Fire resisting and/or smoke control doorsets are made with a three-sided permanently elastic seal and a permanently elastic middle rebate seal additionally in the event of double leaf doorsets in conjunction with a soil liner (for smoke control).

The single leaf "H60-1 OD" or double leaf "H60-2 OD" doorsets with the classification El₂ 60-C5 S_a and El₂ 60-C5 S₂₀₀ are proved as internal fire resisting and/or smoke control single and double leaf doorsets in internal walls/on internal components:

- ≥ 175 mm high density solid wall of masonry with an overall density of ≥ 850 kg/m³, or
- ≥ 140 mm solid wall of concrete masonry with an overall density ≥ 850 kg/m³, or
- ≥ 200 mm low density solid wall of aerated concrete with an overall density of ≥ 650 ± 200 kg/m³, or
- ≥ 100 mm fire resistant light weight plasterboard faced steel stud partition of fire resistance class EI 60, or
- ≥ 100 mm thick clad steel columns or -beams of fire resistance class EI 60.



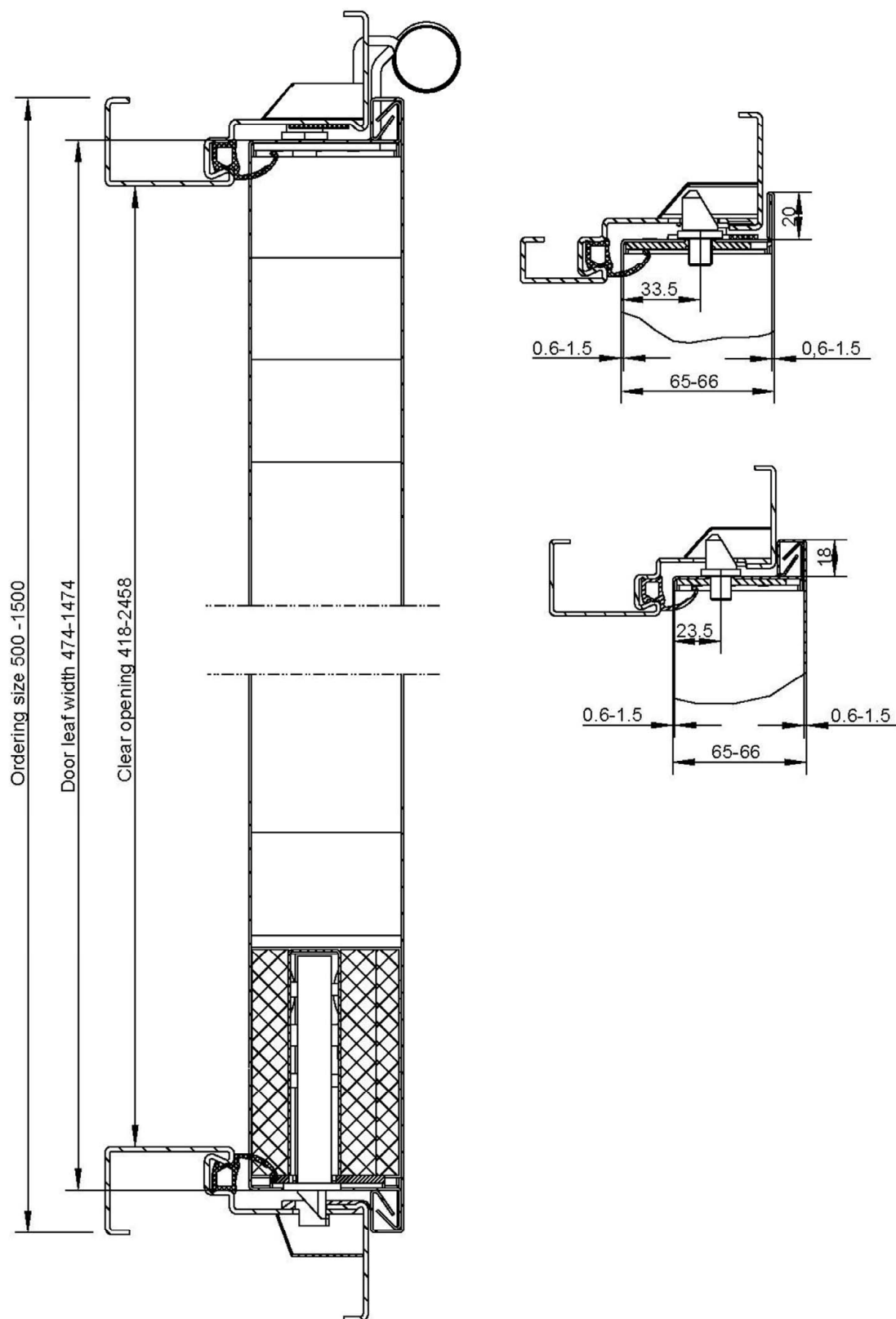
All dimensions in mm

	Ordering size		Clear opening		Overall frame size		Clear opening size active leaf
	width from-till	height from-till	width from-till	height from-till	width from-till	height from-till	from-till
H60-1 OD thick/ thin rebate	500-1500	500-2500	418-1418	418-2458	564-1564	564-2576	--
H60-1 OD unrebuted	660-1320	1875-2500	578-1238	1833-2458	724-1384	1939-2531	--
H60-2 OD thick/ thin rebate	970-2500	1750-2500	887-2417	1708-2458	1033-2563	1781-2570	487-1192

"H60-1 OD" and "H60-2 OD"

Summary

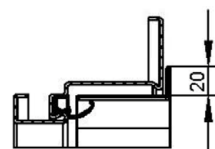
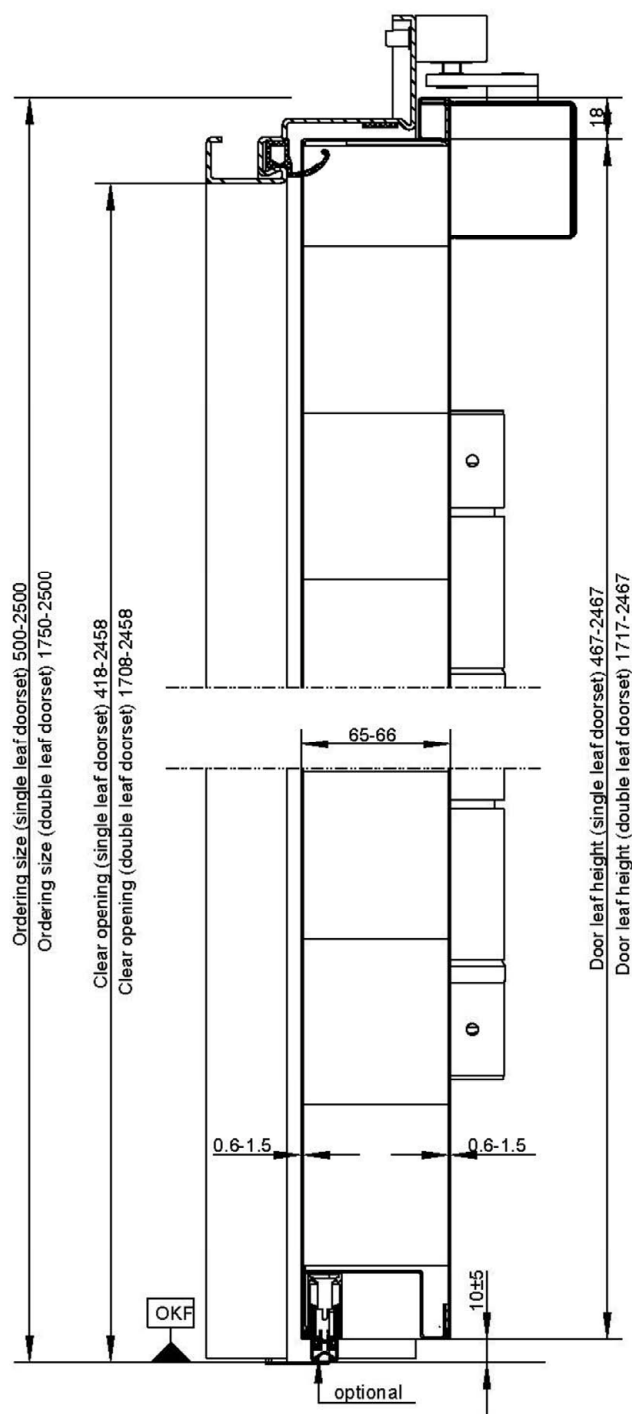
Annex 2



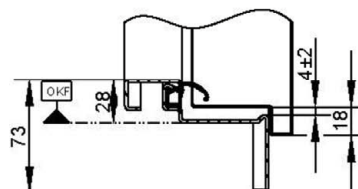
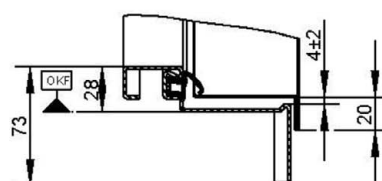
"H60-1 OD" and "H60-2 OD"

Construction - horizontal section single leaf doorset

Annex 3



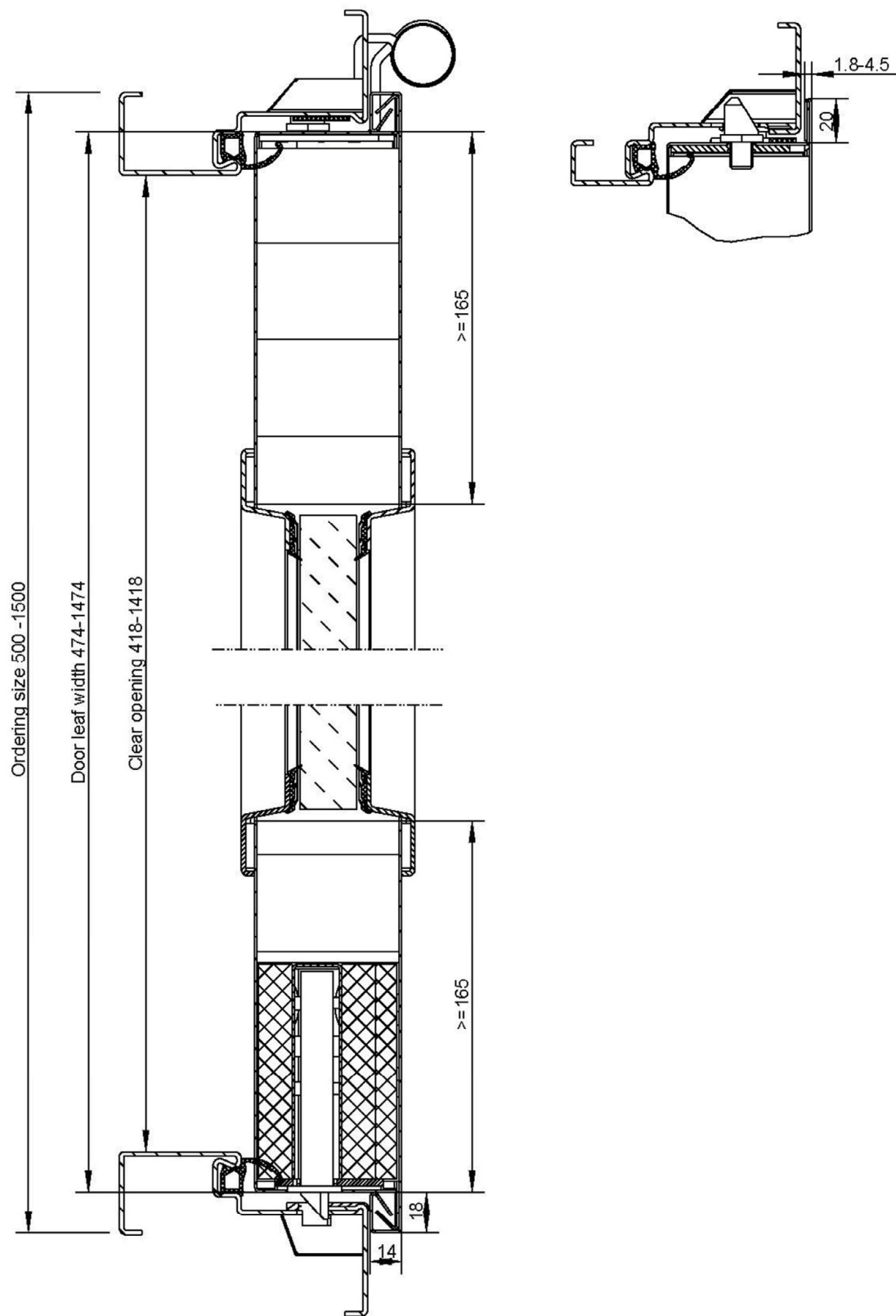
Variant, four-sided all-round frame
with all-round rebated door leaf



"H60-1 OD" and "H60-2 OD"

Construction - vertical section single and double leaf doorset (thick and thin rebate)

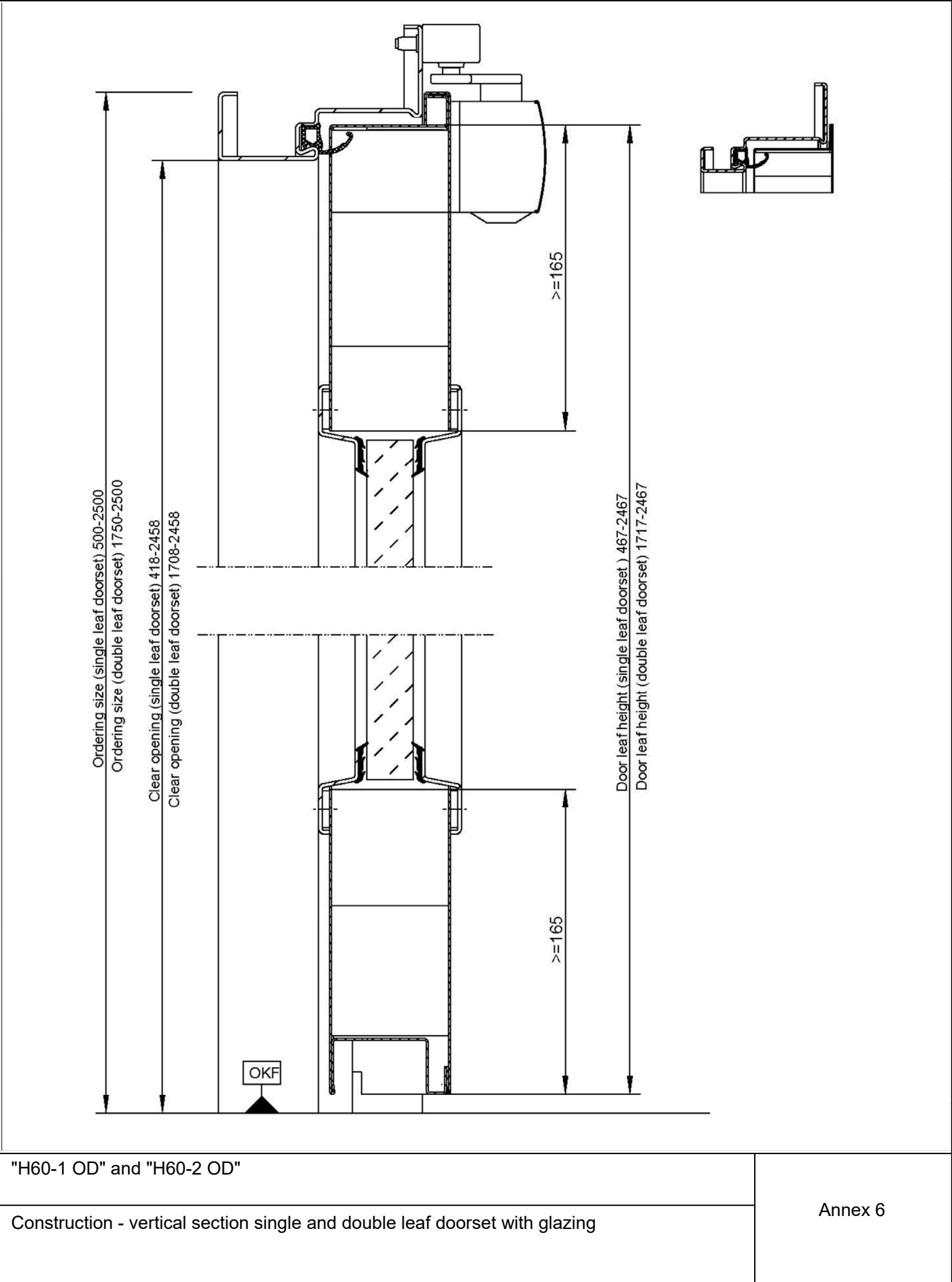
Annex 4

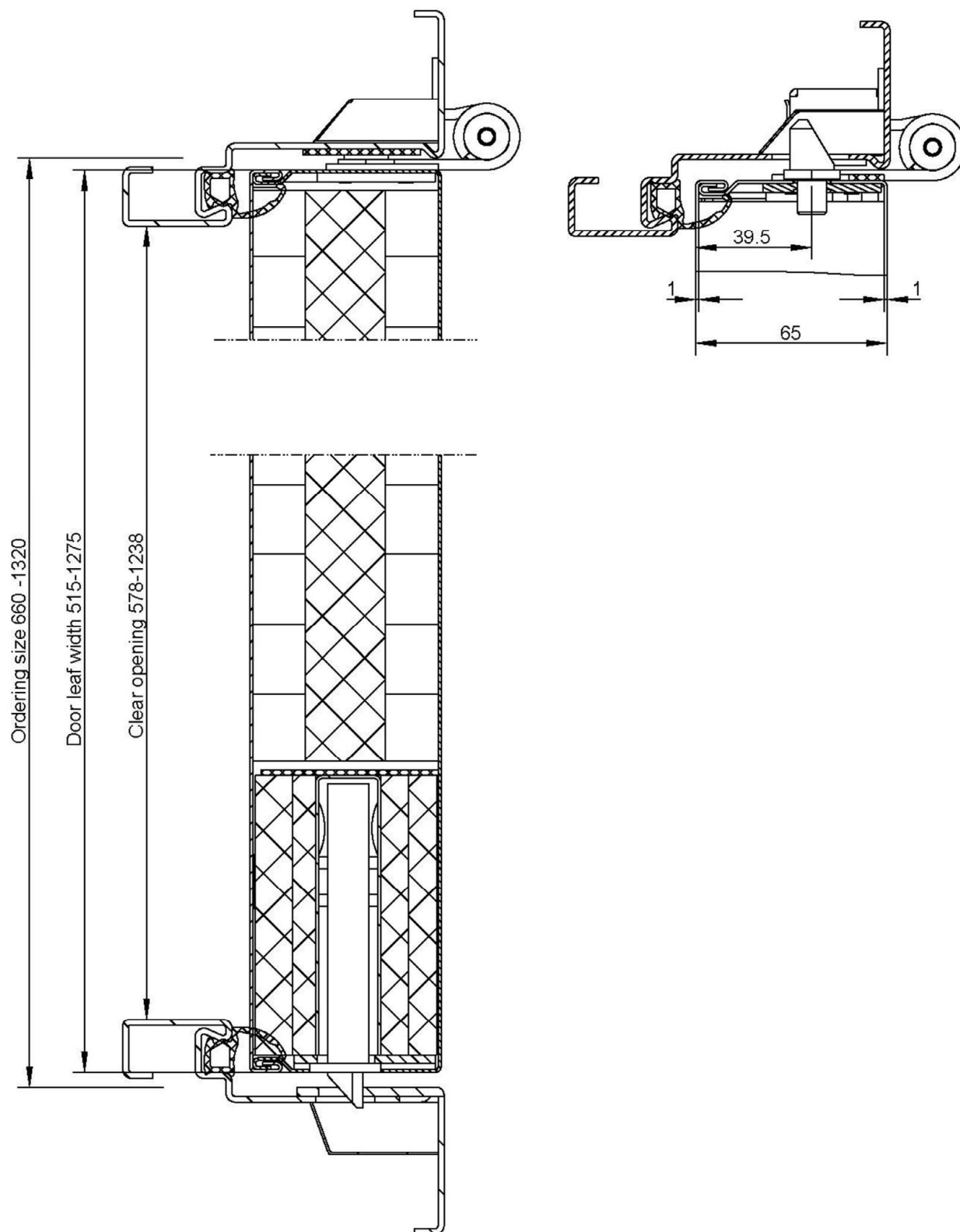


"H60-1 OD"

Construction - horizontal section single leaf doorset with glazing

Annex 5

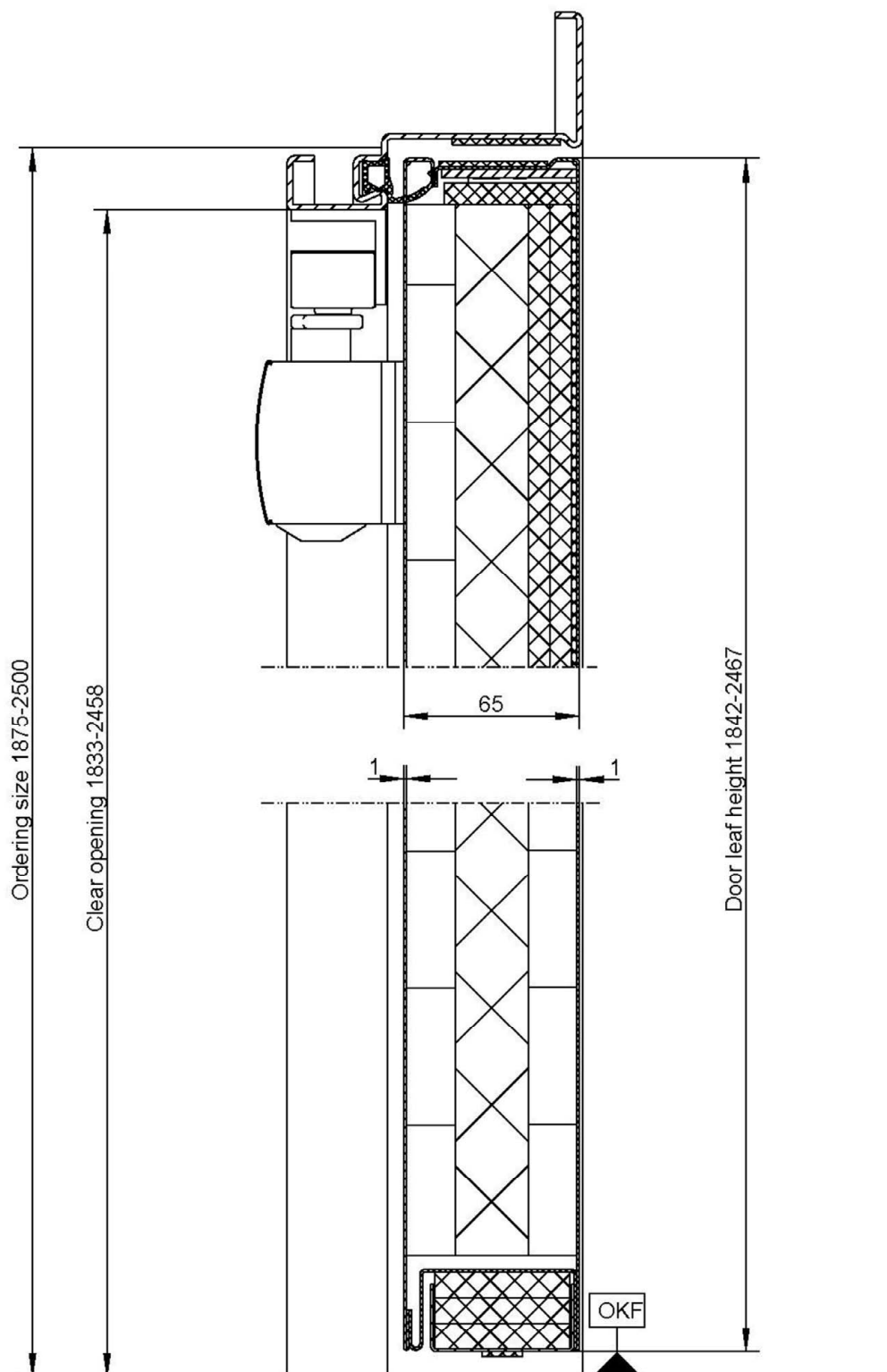




"H60-1 OD" and "H60-2 OD"

Construction - horizontal section single unrebuted leaf doorset

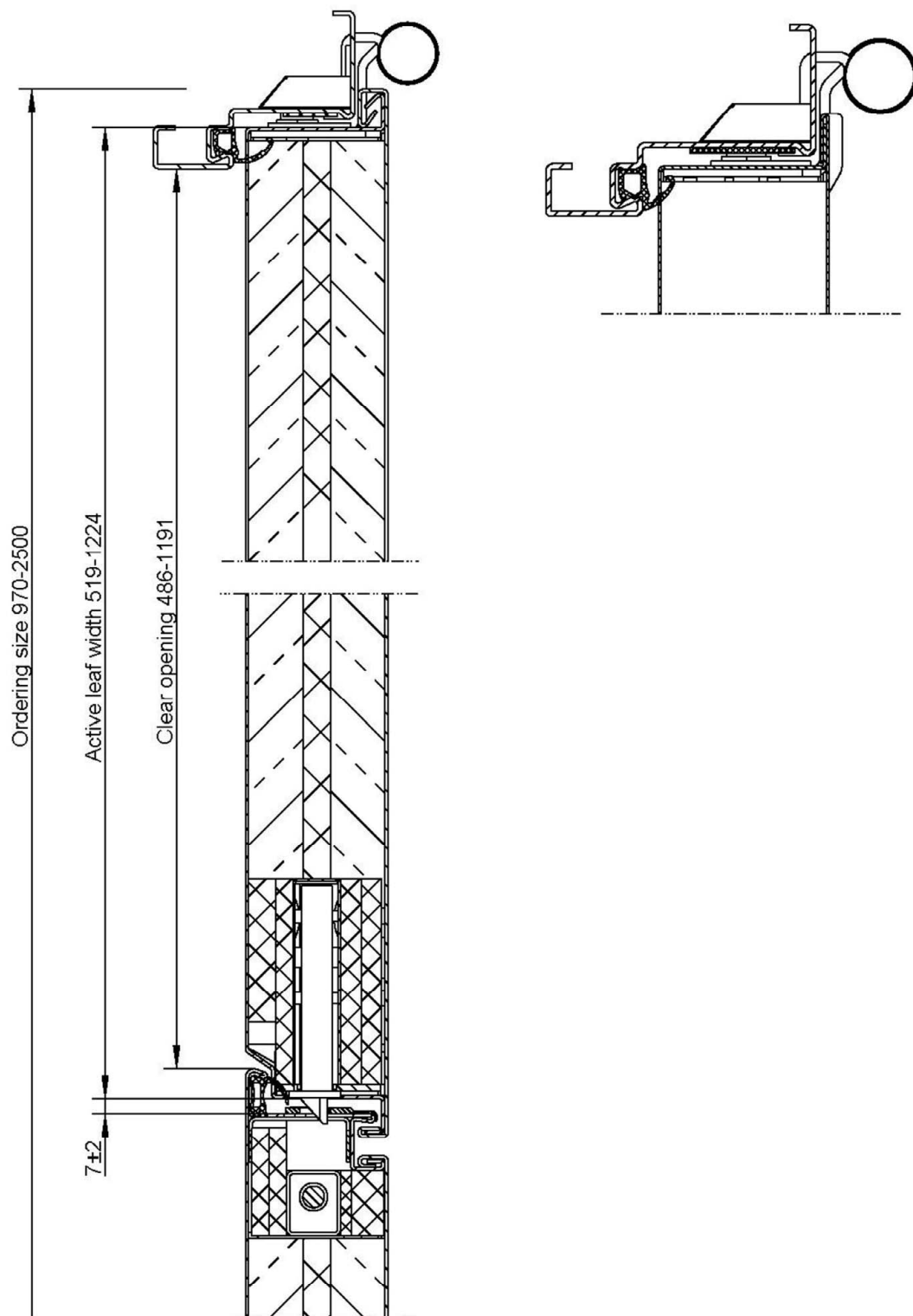
Annex 7



"H60-1 OD"

Construction - vertical section unrebated single leaf doorset

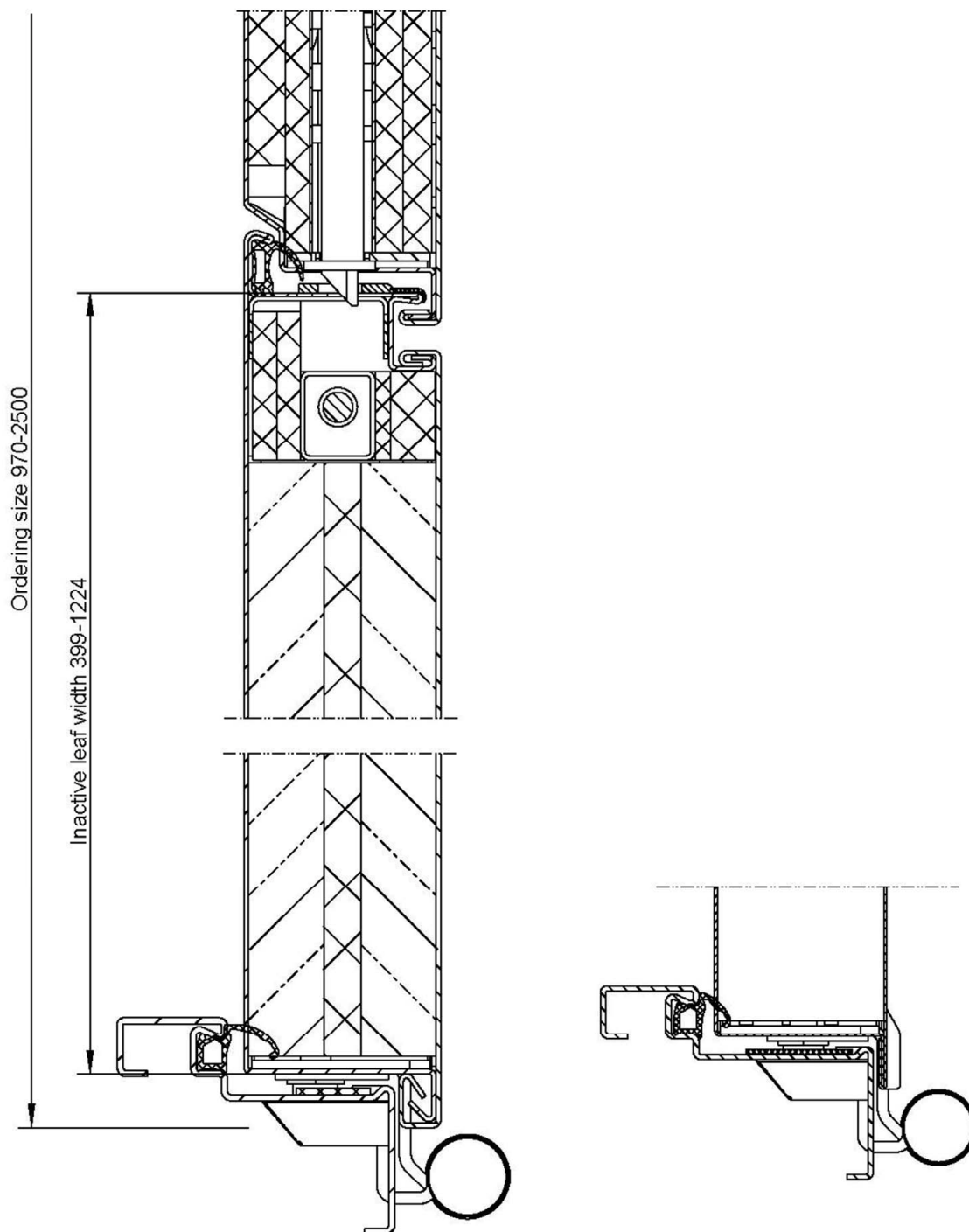
Annex 8



"H60-1 OD"

Construction - horizontal section double leaf doorset

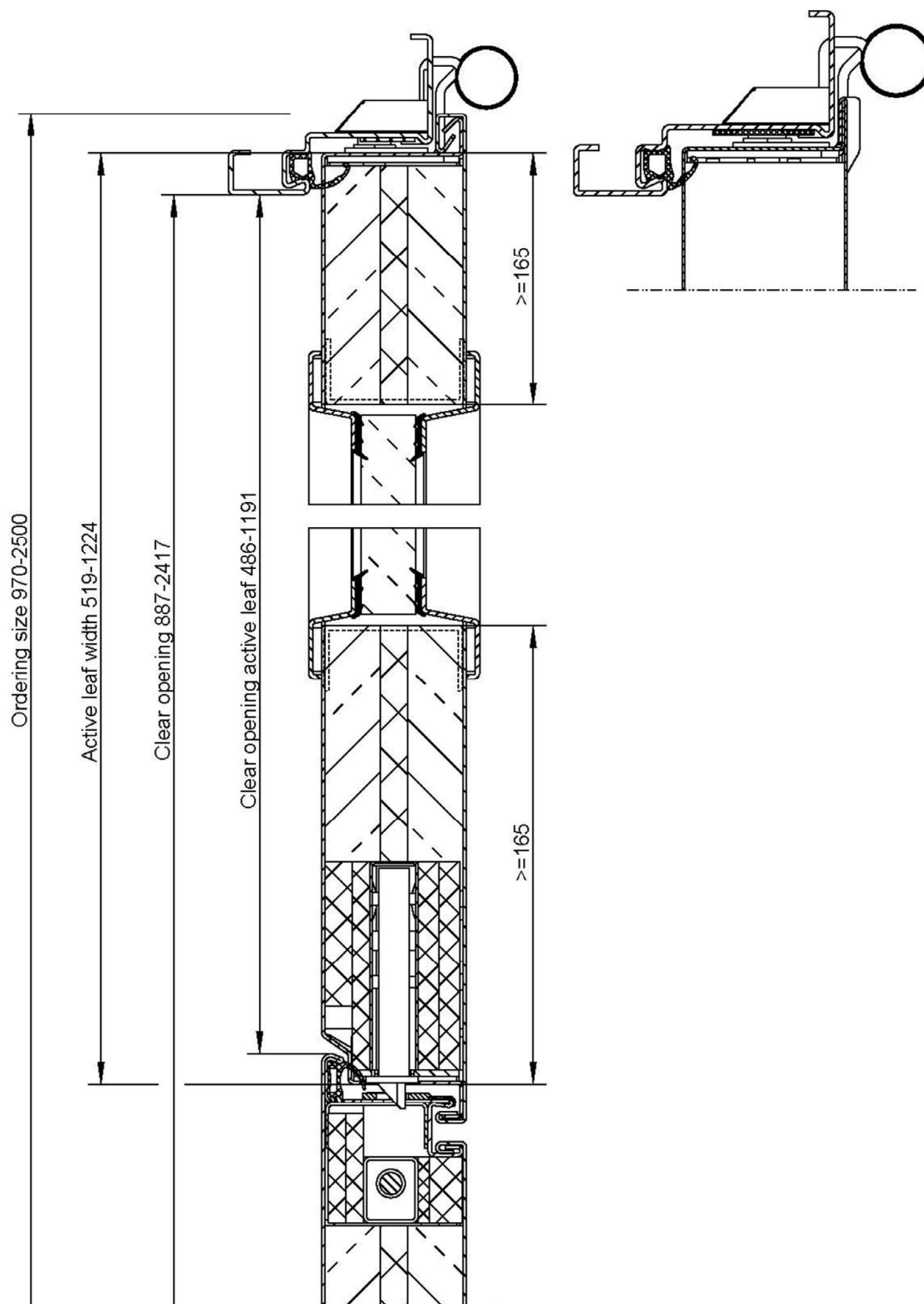
Annex 9



"H60-1 OD" and "H60-2 OD"

Construction - horizontal section double leaf doorset

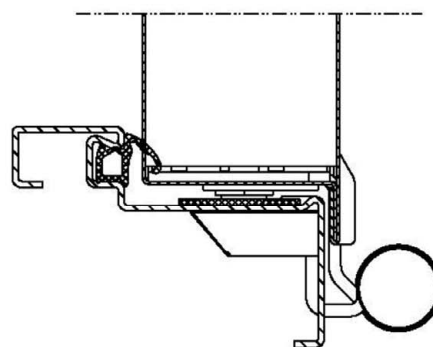
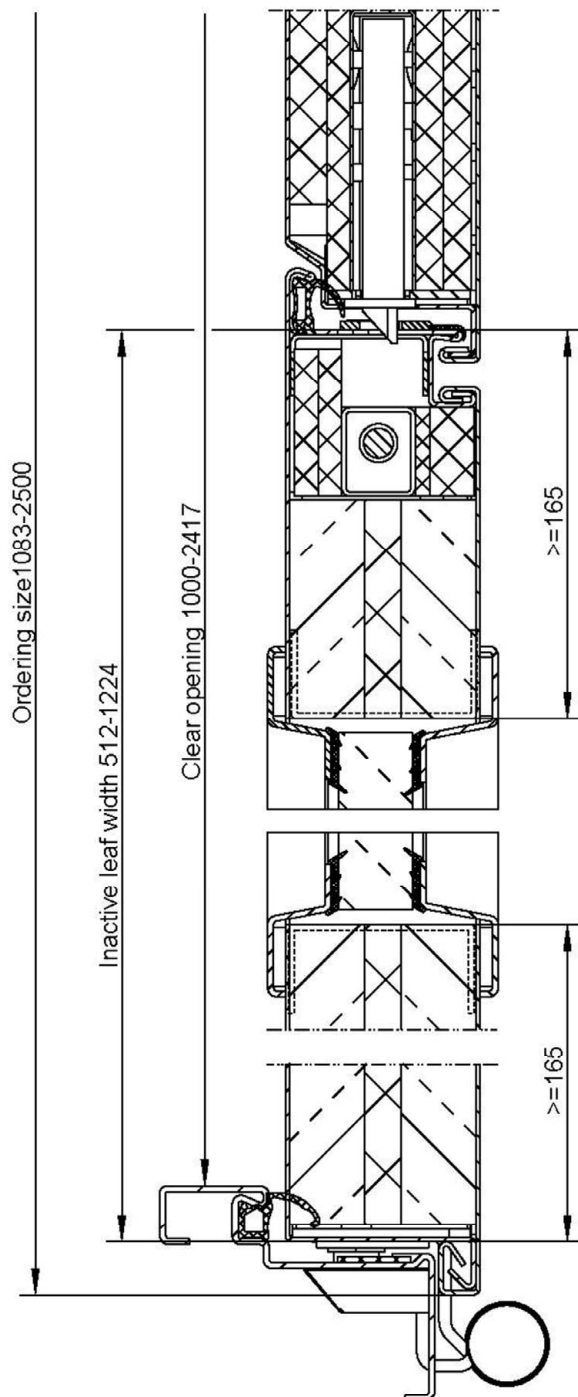
Annex 10



"H60-1 OD" and "H60-2 OD"

Construction - horizontal section double leaf doorset with glazing

Annex 11



"H60-2 OD"

Construction - horizontal section double leaf doorset with glazing

Annex 12