

# LOAD CAPACITY TABLE

## Hinges for doors up to 20 kg. - door mass class 1

The loading capacity of the hinges is a data that cannot be determined in an absolute manner, since not all the elements that constitute doors and windows can always be determined in advance.

The main variables are:

- 1) dimensions of the shutter;
- 2) weight of the shutter;
- 3) number of hinges;
- 4) position of the hinges;
- 5) type and quality of the frame material. For example: the presence of knots in wood may jeopardize the grip of the hinge or in the case of PVC frames the presence and the shape of the internal metal reinforcement may affect the loading capacity of the hinges;
- 6) accuracy, precision and experience in the assembly. For example: installing the male more than 6 mm away from the frame or a thread not completely screwed, can compromise the proper functioning of the hinges;
- 7) position and frequency of use of the window/door.

The following table has been defined taking into consideration:

1) the information provided by the European Norm UNI EN 1935:2002.

2) the tests performed on the hinges.

In particular, norm 1935:2002 suggests to load a hinge with 1/3 of the declared weight in the CE certificate or declaration of performance, thus recommends the use of three hinges per shutter, praxis OTLAV agrees with, since it makes the door/window more stable.

The regulations 1935:2002 also determines that in the case of doors or windows of remarkable width, it is necessary to apply a "coefficient of increase of the shutter mass", which determines the decrease of the loading capacity of the hinges.

**The Otlav hinges are divided in 8 classes of wight:**

Class 0: doors up to 10 kg.

Class 1: doors up to 20 kg.

Class 2: doors up to 40 kg.

Class 3: doors up to 60 kg.

Class 4: doors up to 80 kg.

Class 5: doors up to 100 kg.

Class 6: doors up to 120 kg.

Class 7: doors up to 160 kg.

**NB:** with doors of 13 kg and hinges in class 1, it is possible to use a hinge less than reported in this table.

**Hinges for doors up to 20 kg. - door mass class 1**

Door height mm.	2400	4	4	4	5	5	5	5	5	3	3
	2300	3	3	4	4	5	5	5	3	3	3
	2200	3	3	3	4	4	4	3	3	3	3
	2100	3	3	3	3	4	3	3	3	3	3
	2000	3	3	3	3	3	3	3	3	3	3
	1900	3	3	3	3	3	3	3	3	3	3
	1800	3	3	3	3	3	3	3	3	3	3
	1200	3	3	3	3	3	3	3	Ctd	Ctd	Ctd
	800	3	3	3	3	Ctd	Ctd	Ctd	Ctd	Ctd	Ctd
			600	800	900	1000	1050	1100	1150	1200	1250

Door width mm.

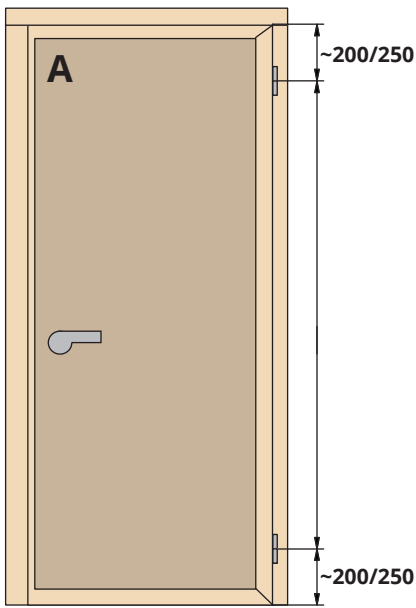
X Suggested number of hinges

3 Switch to a hinge of one higher class, use 3 hinges, to choose the hinge see list on page 3.

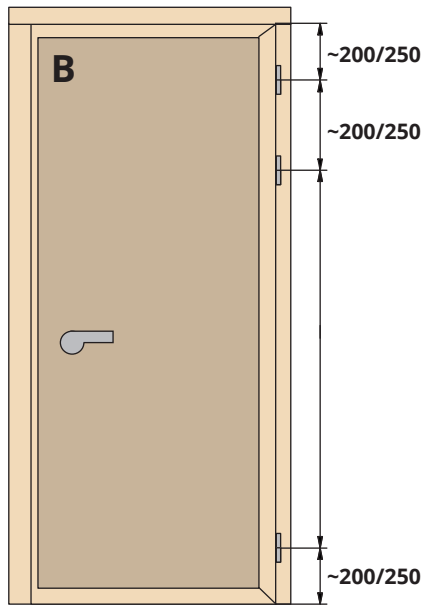
Ctd Non-standard door sizes, please contact the technical department

\* The class refers to the third cell of the CE certificate or declaration of performance.

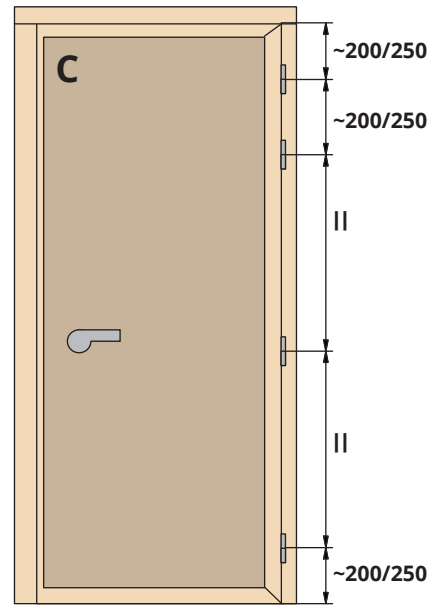
## Positioning of the hinges



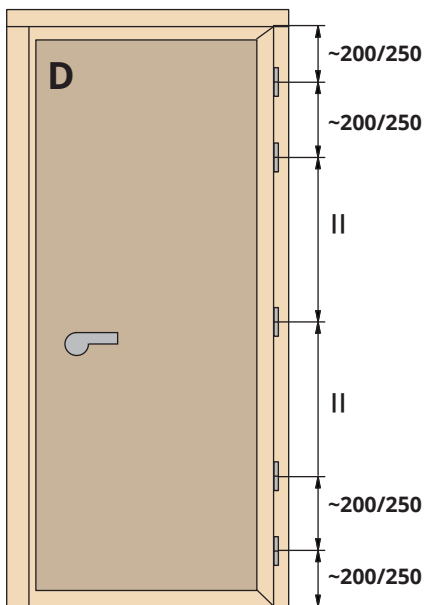
**2 hinges**



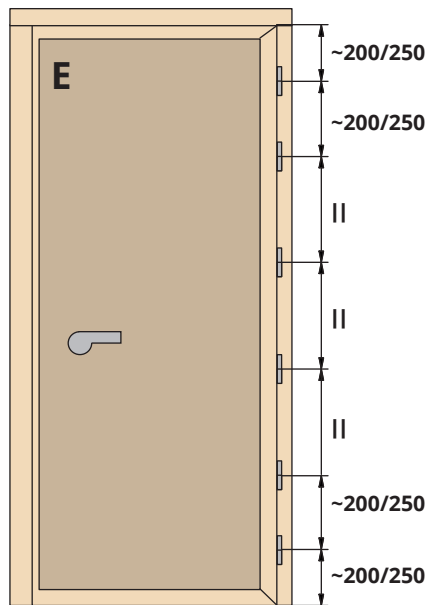
**3 hinges**



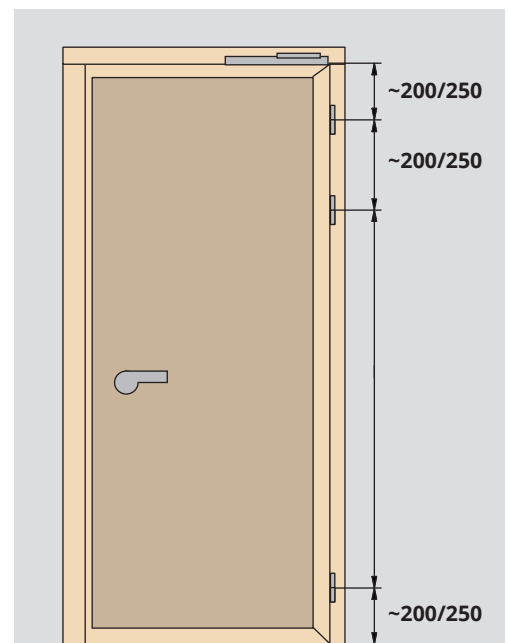
**4 hinges**



**5 hinges**



**6 hinges**



### Door-closer

Referring to the load capacity table, add a hinge, respecting the diagrams reported hereby.

## Codes table

Table of OTLAV hinges codes divided by class of wight.

Hinge classes							
0 - 10 kg.	1 - 20 kg.	2 - 40 kg.	3 - 60 kg.	4 - 80 kg.	5 - 100 kg.	6 - 120 kg.	7- 160 kg.
530 Ø9	060 Ø13	030 Ø13	030 Ø14	320 Ø20	495 Ø16 Exacta	494 Ø20	495 Ø180 URSUS
530 Ø11	210 Ø13	050 Ø13	030 Ø16	483 Ø16	482 Ø16	495 Ø20	
535 Ø9	300 Ø13	055 Ø13	031 Ø16	486 Ø16		495 Ø16 Ursus	
535 Ø11	300 Ø14	057 Ø13	045 Ø18	495 Ø13			
600 Ø9	300 Ø16	060 Ø14	055 Ø14	495 Ø14			
605 Ø9	NT 021	070 Ø13	055 Ø16	495 Ø14			
605 Ø11	P09 Ø13	075 Ø13	057 Ø14	750 Ø18			
610 Ø9		085 Ø13	057 Ø16				
610 Ø11		095 Ø14	058 Ø14				
		100 Ø13,5	085 Ø14				
		101 Ø13,5	100 Ø15				
		102 Ø15	101 Ø15				
		103 Ø15	103 Ø15				
		190 Ø13	104 Ø15				
		190 Ø14	180 Ø16				
		409 Ø14	190 Ø14				
		P05 Ø13	190 Ø16				
		P38 Ø13	221 Ø15				
		P39 Ø13	320 Ø15				
		P50 Ø15	320 Ø16				
		P88 Ø13	320 Ø18				
			335 Ø15				
			340 Ø15				
			341 Ø15				
			343 Ø15				
			355 Ø13				
			355 Ø14				
			355 Ø16				
			484 Ø16				
			485 Ø14				
			486 Ø14				
			488 Ø16				
			491 Ø14				
			CE 022 Ø15				
			CE 047 Ø15				
			CE 048 Ø15				
			CE 335 Ø150				
			FP 096 Ø8				
			TE012 Ø15				