

# Electrical installation solutions for buildings – Technical details

## General purpose enclosures

### Index

Power dissipation values	24/2
MultiBox – dimensions	24/14
APO – dimensions	
Bases	24/16
APO - dimensions	
For mounting	24/17
APO – dimensions	
Cut-outs in side panels	24/18
APO – dimensions	
Cable-end boxes	24/19
VMS – dimensions	
Bases	24/20
VMS – dimensions	
Busbar supports	24/23
ARIA – dimensions	24/24
PolySafe – Alu frame mounting applications	24/26
PolySafe – dimensions	24/27
Compliance with standards and technical characteristics – Gemini	24/29
IP degree of protection – Gemini	24/31
IK degree of resistance to impacts – Gemini	24/32
Double insulation and self-extinguishing tests – Gemini	24/33
Resistance to chemical agents – Gemini	24/34
Integration with ABB products – Gemini	24/35
Disposal instructions	24/36
Overall dimensions – Basic configuration	24/37
Overall dimensions – Components for automation applications	24/40
Overall dimensions – Components for distribution and mixed applications	24/41
Overall dimensions – Casse SR2	24/53
Overall dimensions – SRX enclosures	24/55
Dissipating power – SR2 enclosures	24/57
Dissipating power – SRX enclosures	24/58

## General purpose enclosures technical details

### Power dissipation values

According to EN 62208, IEC 62208 and IEC 60890

**For each enclosures range**

- The 4 or 5 different matrix tables contain all the enclosure **dimensions**.
- The tables are created according to the **positioning** of the enclosure.
- **Two different values** of temperature rise are given depending on the measuring point in the cabinet: **half way or on top**.

**What is acceptable according to EN 62208, IEC 62208 and IEC 60890**

- For common electrical applications, a **temperature rise of 50 K** is generally accepted. If the rise is above 50 K, a larger enclosure should be chosen. More volume results in a decrease of the temperature rise.
- The **absolute** temperature in °C in the enclosure is the **sum** of the **ambient** temperature in °C and the **temperature rise** in K. According to the standards, the absolute temperature is **max. 70 °C**

**How to use a matrix?**

**First** choose the right matrix according to the position and the size of the enclosure.

**Second** calculate the effective power loss in Watt (left column). Add 10-20% to the total effective power loss of the components in order to compensate the small wiring and connections.

**Third** read in the matrix the temperature rise in the cabinet due to the thermal power dissipation.

**Example of an individual enclosure PolySafe 452**

Enclosure: height = 1000mm, width = 1250mm, depth = 320mm. Placed against the wall.

The calculated effective power loss of the components: 600W  
Components are placed in the centre of the cabinet.

In the table 'Rear against wall' (see below) read for **600W** and column **'Half': 40K** temperature rise.

With an ambient temperature of 20 °C, the absolute temperature around the components will be approximately 20 + 40 = 60 °C  
If the temperature is too high for the components, then choose a larger cabinet to allow air ventilation.

**Example of coupled enclosures PolySafe 452**

Enclosure on the **left side**: height 1000, width 1250 mm, depth 320 mm. Enclosure **in the middle**: height 1000, width 1250 mm, depth 320 mm. Enclosure on the **right side**: height 1000, width 1250 mm, depth 320 mm. Placed against the wall

**Do the same calculation as above for each individual enclosure.**

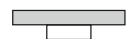
Find the temperature rise for the **left and right side** enclosure in the table **'Front, left and upperside free'**, see page 24/10 and find **'Half': 42K**

Find the temperature rise for the **middle** enclosure in the table **'Frontside and upperside free'**, see page 24/11 and find **'Half': 44K**

**Rear against wall (wall mounting)**

Temperature rise [Kelvin]

Dissipation Watt	PSS 220 500×500		PSS 230 500×750		PSS 320 750×500		PSS 330 750×750		PSS 340 750×1.000		PSS 352 750×1.250		PSS 420 1.000×500		PSS 430 1.000×750		PSS 440/442 1.000×1.000		PSS 452 1.000×1.250		PSS 530 1.250×750		PSS 542/546 1.250×1.000		
	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	
10	4	5	4	4	4	5																			
20	8	9	7	7	6	8	5	6	4	5			5	7											
30	11	13																							
40	13	16	11	13	11	14	9	11	7	9	6	7	9	13	7	9	5	7	5	6	5	8			
50	16	19																							
60	19	22	16	18	16	19	12	16	10	12	8	10	12	18	10	13	7	10	6	8	8	11	6	8	
70	21	25																							
80	23	28	20	23	20	24	15	20	12	16	10	12	16	22	12	16									
90	26	31																							
100	28	33	24	27	23	29	18	23	15	19	12	14	19	27	14	19	11	14	9	12	11	16	9	13	
120	32	38	28	31	27	33	21	27					22	31	17	23									
140	37	44	31	35	31	38	24	31	19	24	15	19	25	35	19	26	15	19	12	16	15	21	12	16	
160	41	48	35	39	34	42	27	34					27	39	21	28									
180	45	53	38	43	38	46	29	38	24	30	19	23	30	43	23	31	18	23	15	19	18	25	15	20	
200	49	58	42	47	41	51	32	41					33	47	25	34									
220	53	63	45	51	44	55	34	44	28	35	22	27	35	50	27	37	21	27	18	23	21	30	18	24	
240			48	55	47	58	37	47					38	54	29	39									
260			52	58	51	62	39	51	32	40	25	31	40	58	31	42	24	31	20	26	24	34	20	27	
280							42	54					43	61	33	45									
300							44	57	36	45	28	35	45	65	35	47	27	35	23	29	27	38	23	30	
350							50	64	40	51	32	40	51	73	40	53	30	39	26	33	31	43	25	34	
400									45	57	36	44			44	59	34	44	29	37	34	48	28	38	
450									49	62	39	48			48	65	37	48	32	40	38	53	31	42	
500													43	53		53	71	40	53	34	44	58	34	46	
550																		44	57	37	47	45	63	37	49
600																		47	61	40	51	48	67	39	53
650													53	65				50	65	42	54	51	72	42	57
700																				45	57			45	60
750																					48	61		47	63
800																					50	64		50	67



## General purpose enclosures technical details

Power dissipation values – MultiBox

Rear against wall		Temperature rise [Kelvin]										
H×W (mm)	MB11	MB11	MB21	MB21	MB22	MB22	MB33	MB33	MB42	MB42	MB44	MB44
Depth (mm)	65×65	65×65	94×65	94×65	94×94	94×94	110×110	110×110	130×94	130×94	130×130	130×130
DISSIPATION	57	81	57	81	57	81	66	90	57	81	75	99
Watt	Top	Top	Top	Top	Top	Top	Top	Top	Top	Top	Top	Top
1												
2												
3												
4	45											
5	55	45	45									
6				45								
7	65	55	55		45							
8	75	65	65	55		45			45			
9						55	45					
10		75	75	65	65	55			55	45		
11							55	45				
12				75						55	45	
13					75	65		55	65			
14							65				55	45
15						75		65	75	65	65	55
20							75	75		75	75	65
25												75

Rear against wall		Temperature rise [Kelvin]											
H×W (mm)	MB52	MB52	MB53	MB53	MB53	MB65	MB65	MB65	MB75	MB75	MB75	MB87	MB87
Depth (mm)	180×94	180×94	180×110	180×110	180×110	182×180	182×180	182×180	254×180	254×180	254×180	361×254	361×254
DISSIPATION	57	81	90	111	165	90	111	165	90	111	165	111	165
Watt	Top	Top	Top	Top	Top	Top	Top	Top	Top	Top	Top	Top	Top
10	45	45											
15	55	55	45										
16	65			45									
17													
18			55										
19	75	65											
20			65	55	45	45							
25		75	75	65	55	55	45		45				
30				75	65	65	55	45	55	45			
35							65	55		55			
40					75	75	75			65		45	
45								65	75	65		45	
50								75		75	55		
55													
60											65	55	45
65													
70											75	65	55
75													
80													
85												75	65
90													
95													
100													75
105													
110													

## General purpose enclosures technical details

### Power dissipation values – APO

#### Rear against wall

Temperature rise [Kelvin]

Dissipation Watt	APO 1 185×150×130		APO 31 300×185×175		APO 41 300×300×175		APO 71 370×300×175		APO 51 485×300×175		APO 81 555×300×175		APO 61 600×300×175		APO 11 600×370×175		APO 12 600×600×175	
	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top
5	12	14	7	9	6	7	5	6	4	5	4	5	4	5	3	4	3	3
10	20	25	12	15	10	12	9	11	8	9	7	9	7	8	6	7	4	5
15	28	34	17	21	14	16	12	15	10	13	10	12	9	11	8	10	6	7
20	36	43	22	27	17	20	15	19	13	16	12	15	11	14	10	13	8	9
25	43	52	26	32	21	24	18	22	16	19	14	18	14	17	12	15	9	11
30			30	37	24	28	21	26	18	22	17	21	16	20	14	17	11	13
40			38	47	30	36	27	32	23	28	21	26	20	25	18	22	14	16
50			45	56	36	43	32	39	27	34	25	31	24	30	21	26	16	19
60					42	49	37	45	32	39	29	36	28	34	25	30	19	22
70							42	51	36	44	33	41	31	39	28	34	21	25
80									40	49	37	46	35	43	31	38	24	28
90											40	50	38	48	34	42	26	31
100													42	52	37	46	28	34
110															40	50	31	36
120															43	53	33	39
130																	35	42
140																	37	44
150																	39	47
160																	41	49
170																	45	53

#### Front, left and upperside free

Temperature rise [Kelvin]

Dissipation Watt	APO 1 185×150×130		APO 31 300×185×175		APO 41 300×300×175		APO 71 370×300×175		APO 51 485×300×175		APO 81 555×300×175		APO 61 600×300×175		APO 11 600×370×175		APO 12 600×600×175	
	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top
5	13	15	8	9	6	7	5	6	5	6	4	5	4	5	4	4	3	3
10	22	27	13	16	11	13	9	11	8	10	7	9	7	9	6	8	5	5
15	30	37	18	23	15	18	13	15	11	14	10	13	10	12	9	11	6	8
20	38	46	23	28	19	22	16	19	14	17	13	16	12	15	11	13	8	10
25	46	56	28	34	22	27	19	23	17	21	15	19	15	18	13	16	10	11
30			32	39	26	31	22	27	19	24	18	22	17	21	15	19	11	13
40			40	50	33	39	28	34	24	30	22	28	19	24	19	23	14	17
50					39	46	33	41	29	36	27	33	25	32	23	28	17	20
60					45	54	39	47	34	42	31	39	29	37	26	32	19	23
70							44	53	38	47	35	44	33	42	30	37	22	26
80									42	52	39	49	37	46	33	41	25	29
90											43	53	41	51	36	45	27	32
100															39	49	29	35
110															43	53	32	38
120																	34	40
130																	36	43
140																	39	46
150																	41	48
160																	43	51
170																		

## General purpose enclosures technical details

### Power dissipation values – APO

#### Frontside and upperside free

Dissipation Watt	Temperature rise [Kelvin]																	
	APO 1 185×150×130		APO 31 300×185×175		APO 41 300×300×175		APO 71 370×300×175		APO 51 485×300×175		APO 81 555×300×175		APO 61 600×300×175		APO 11 600×370×175		APO 12 600×600×175	
	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top
5	13	16	8	10	7	8	6	7	5	6	5	6	4	5	4	5	3	3
10	24	29	14	18	11	14	10	12	8	10	8	10	7	9	7	8	5	6
15	33	40	20	24	16	19	14	17	12	15	11	14	10	13	9	11	7	8
20	41	50	25	31	20	24	17	21	15	18	14	17	13	16	12	14	8	10
25			30	37	24	28	21	25	18	22	16	20	16	20	14	17	10	12
30			34	42	28	33	24	29	20	25	19	24	18	23	16	20	12	14
40			43	54	35	41	30	37	26	32	24	30	23	29	20	25	15	17
50					42	49	36	44	31	38	29	36	27	34	24	30	17	21
60					48	57	42	51	36	44	33	41	32	39	28	35	20	24
70									40	50	38	47	36	45	32	39	23	27
80											42	52	40	50	35	44	26	30
90															39	48	28	33
100															42	52	31	36
110																	33	39
120																	35	42
130																	38	45
140																	40	48
150																	42	50
160																		
170																		

#### Frontside free, upper side not free

Dissipation Watt	Temperature rise [Kelvin]																	
	APO 1 185×150×130		APO 31 300×185×175		APO 41 300×300×175		APO 71 370×300×175		APO 51 485×300×175		APO 81 555×300×175		APO 61 600×300×175		APO 11 600×370×175		APO 12 600×600×175	
	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top
5	15	18	9	11	7	8	6	8	5	6	5	6	5	6	4	5	3	4
10	25	31	16	19	12	15	11	14	9	11	8	10	8	10	7	9	5	6
15	35	43	22	27	17	21	16	19	13	16	12	14	11	14	10	12	7	9
20	44	54	27	34	22	26	20	24	16	20	15	18	14	17	12	15	9	11
25			33	41	26	31	23	29	19	23	18	22	17	21	15	18	11	13
30			38	47	30	36	27	33	22	27	20	25	19	24	17	21	13	15
40			48	59	38	45	34	42	28	34	26	32	24	30	22	27	16	19
50					46	54	41	50	33	41	31	38	29	36	26	32	19	22
60									38	47	35	44	34	42	30	37	22	26
70									43	54	40	50	38	48	34	42	25	29
80													43	53	38	47	28	33
90															42	51	30	36
100																	33	39
110																	36	42
120																	38	45
130																	41	48
140																	43	51
150																		
160																		
170																		

## General purpose enclosures technical details

### Power dissipation values – VMS

Dissipation Watt		Rear against wall (wall mounting)																				Temperature rise [Kelvin]	
		VMS 32 320×220×180		VMS 32 320×220×255		VMS 33 320×320×180		VMS 33 320×320×255		VMS 43 440×320×180		VMS 43 440×320×255		VMS 63 640×320×180		VMS 63 640×320×255		VMS 64 640×440×180		VMS 64 640×440×255			
		Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top		
10		11	14	9	11	9	11	8	9	8	9	7	8	6	7	5	6	5	6	4	5		
20		20	24	16	20	16	19	14	16	13	16	11	14	10	13	9	11	9	11	8	10		
30		27	33	22	27	22	26	19	23	18	23	16	19	14	18	12	15	12	15	11	13		
40		34	42	28	34	28	33	24	28	23	28	20	24	18	23	16	19	15	19	14	17		
50		41	50	33	41	33	39	29	34	28	34	24	29	22	27	19	23	18	22	16	20		
60		47		38	47	38	45	33	39	32	39	28	34	25	31	22	27	21	26	19	23		
70		54		43	53	43	51	38	45	36	45	31	38	28	36	24	30	24	29	21	26		
80				48		48		42	50	41	50	35	43	32	40	27	34	27	33	24	29		
90				53		53		46	55	45	55	38	47	35	43	30	37	29	36	26	32		
100								50		49		42	51	38	47	33	41	32	39	28	35		
120										56		48		44	55	38	47	37	45	33	40		
140												55		50		43	53	42	51	37	46		
160														55		47		47		41	51		
180																52		51		45	56		
200																57		56		49			
220																				53			

Dissipation Watt		Front, right and upperside free																				Temperature rise [Kelvin]	
		VMS 32 320×220×180		VMS 32 320×220×255		VMS 33 320×320×180		VMS 33 320×320×255		VMS 43 440×320×180		VMS 43 440×320×255		VMS 63 640×320×180		VMS 63 640×320×255		VMS 64 640×440×180		VMS 64 640×440×255			
		Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top		
10		12	15	10	12	9	11	8	10	8	10	7	9	6	8	6	7	5	6	5	6		
20		21	26	17	21	16	20	15	17	14	17	12	15	11	14	10	12	9	11	8	10		
30		29	35	24	30	23	27	20	24	20	24	17	21	15	19	13	17	13	16	11	14		
40		36	45	30	37	29	34	25	30	25	30	21	26	19	24	17	21	16	20	14	18		
50		43	53	36	45	34	41	30	36	29	36	26	31	23	29	20	25	19	24	17	21		
60		50		42	52	40	47	35	42	34	42	30	36	27	34	23	29	22	27	20	24		
70		57		48		45	54	40	47	39	47	34	41	31	38	26	33	25	31	22	28		
80				53		50		44	53	43	53	37	46	34	42	29	37	28	35	25	31		
90						55		49		47		41	50	37	47	32	40	31	38	27	34		
100								53		51		45	55	41	51	35	44	34	41	30	37		
120												52		47		41	51	39	48	35	43		
140														53		46		44	54	39	48		
160																51		49		44	54		
180																57		54		48			
200																				52			
220																				56			

# General purpose enclosures technical details

## Power dissipation values – VMS

Dissipation Watt		Temperature rise [Kelvin]																			
		VMS 32 320×220×180		VMS 32 320×220×255		VMS 33 320×320×180		VMS 33 320×320×255		VMS 43 440×320×180		VMS 43 440×320×255		VMS 63 640×320×180		VMS 63 640×320×255		VMS 64 640×440×180		VMS 64 640×440×255	
Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top
10	13	16	11	14	10	12	9	10	9	10	8	9	7	9	6	8	6	7	5	6	
20	22	27	20	24	18	22	15	18	15	18	13	16	12	15	11	13	10	12	9	11	
30	31	37	27	33	25	30	21	25	21	25	18	22	17	21	15	18	14	17	12	15	
40	38	47	34	42	32	38	27	32	26	32	23	28	21	26	18	23	17	21	15	19	
50	46	57	41	50	38	45	32	38	31	38	28	34	25	31	22	28	20	25	18	22	
60	53		47		44	52	37	44	36	44	32	39	29	36	26	32	24	29	21	26	
70			53		50		42	50	41	50	36	44	33	41	29	36	27	33	24	29	
80					55		47	56	46	56	40	49	37	46	32	40	30	37	27	33	
90							52		50		44	54	40	50	35	44	33	40	29	36	
100							56		54		48		44	55	39	48	36	44	32	39	
120											56		51		45	56	41	51	37	45	
140															51		47		42	51	
160															56		52		46		
180																			51		

Dissipation Watt		Temperature rise [Kelvin]																			
		VMS 32 320×220×180		VMS 32 320×220×255		VMS 33 320×320×180		VMS 33 320×320×255		VMS 43 440×320×180		VMS 43 440×320×255		VMS 63 640×320×180		VMS 63 640×320×255		VMS 64 640×440×180		VMS 64 640×440×255	
Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top
10	14	17	12	15	12	14	10	12	9	11	8	10	7	9	7	8	6	7	5	7	
20	24	30	22	27	20	24	18	22	16	20	15	18	13	16	12	14	11	13	10	12	
30	33	41	30	37	28	34	25	30	22	27	20	25	18	22	16	20	15	18	13	16	
40	42	52	38	46	36	42	32	38	28	34	26	31	22	28	20	25	18	23	17	21	
50	50		45	55	43	51	38	45	34	41	31	38	27	33	24	30	22	27	20	25	
60			52		49		44	52	39	48	35	43	31	39	28	35	26	31	23	28	
70					56		50		44	54	40	49	35	44	32	39	29	36	26	32	
80							55		49		45	55	39	49	35	44	32	40	29	36	
90									54		49		43	54	39	48	35	43	32	39	
100											54		47		42	52	39	47	35	43	
120													54		49		45	55	40	50	
140															55		50		46	56	
160																	56		51		
180																			56		

## General purpose enclosures technical details

Power dissipation values – ARIA

### Rear against wall

Temperature rise [Kelvin]

Dissipation Watt	ARIA 32 300×200×170		ARIA 43 400×300×170		ARIA 54 500×400×230		ARIA 64 600×400×230		ARIA 75 700×500×270		ARIA 86 800×600×300		ARIA 108 1,000×800×300	
	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top
10	12	15	8	10	6	7	5	6	4	5	3	4	2	3
20	21	26	15	18	10	12	9	11	7	9	6	7	4	5
30	30	36	20	25	14	17	12	15	10	12	8	10	5	7
40	37	46	26	32	17	21	15	19	12	15	10	13	7	9
50	45	55	31	38	21	25	18	22	15	18	12	15	8	11
60			36	44	24	29	21	26	17	21	13	18	9	13
70			41	49	27	33	24	29	19	24	15	20	11	14
80			45	55	30	36	27	33	21	26	17	23	12	16
90					33	40	29	36	23	29	18	25	13	18
100					36	44	32	39	26	31	20	27	14	19
110					39	47	34	42	28	34	22	29	15	21
120					42	50	37	45	30	36	23	31	16	22
130							39	49	32	39	25	33	17	24
140							42	51	33	41	26	35	19	25
150									35	43	28	37	20	26
160									37	46	29	39	21	28
170									39	48	31	41	22	29
180									41	50	32	43	23	31
190											34	45	24	32
200											35	47	25	33
210											37	49	26	35
220											38	51	27	36
230													28	37
240													29	39
250													30	40
260													31	41
270													31	42
280													32	44
290													33	45
300													34	46
310													35	47
320													36	49
330													37	50
340														

### Front, left and upperside free

Temperature rise [Kelvin]

Dissipation Watt	ARIA 32 300×200×170		ARIA 43 400×300×170		ARIA 54 500×400×230		ARIA 64 600×400×230		ARIA 75 700×500×270		ARIA 86 800×600×300		ARIA 108 1,000×800×300	
	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top
10	13	16	9	11	6	7	5	7	4	5	3	4	2	3
20	23	28	16	19	10	13	9	11	7	9	6	8	4	6
30	31	38	22	26	15	18	13	16	10	12	8	11	6	8
40	39	49	27	33	18	22	16	20	13	16	10	13	7	10
50	47	58	32	40	22	27	19	24	15	19	12	16	9	12
60			38	46	25	31	23	28	18	22	14	19	10	13
70			43	52	29	35	26	31	20	24	16	21	11	15
80					32	39	28	35	22	27	18	23	13	17
90					35	43	31	38	24	30	19	26	14	19
100					38	46	34	42	27	33	21	28	15	20
110					41	50	37	45	29	35	23	30	16	22
120							39	48	31	38	24	32	18	23
130							42	52	33	40	26	35	19	25
140									35	43	28	37	20	26
150									37	45	29	39	21	28
160									39	48	31	41	22	29
170									41	50	32	43	23	31
180									43	52	34	45	24	32
190											35	47	26	34
200											37	49	27	35
210											38	51	28	37
220													29	38
230													30	39
240													31	41
250													32	42
260													33	44
270													34	45
280													35	46
290													36	48
300													37	49
310													38	50
320														
330														
340														



# General purpose enclosures technical details

## Power dissipation values – ARIA

Dissipation Watt		Temperature rise [Kelvin]													
		ARIA 32 300×200×170		ARIA 43 400×300×170		ARIA 54 500×400×230		ARIA 64 600×400×230		ARIA 75 700×500×270		ARIA 86 800×600×300		ARIA 108 1,000×800×300	
Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top
10	14	17	9	11	6	8	6	7	4	5	4	5	3	3	
20	24	30	16	20	11	14	10	12	8	9	7	8	4	6	
30	33	41	23	28	16	19	14	17	11	13	9	11	6	8	
40	42	52	29	35	20	24	17	22	13	16	11	14	8	10	
50			34	42	23	29	21	26	16	20	14	17	9	12	
60			40	48	27	33	24	30	18	23	16	19	11	14	
70			45	55	31	37	27	34	21	26	18	22	12	16	
80					34	42	31	38	23	29	20	24	14	18	
90					38	46	34	41	26	31	22	27	15	19	
100					41	50	36	45	28	34	24	29	16	21	
110							39	49	30	37	26	31	18	23	
120							42	52	32	40	27	34	19	24	
130									34	42	29	36	20	26	
140									37	45	31	38	21	27	
150									39	47	33	40	23	29	
160									41	50	35	42	24	31	
170											36	44	25	32	
180											38	47	26	34	
190											40	49	27	35	
200											41	51	29	37	
210													30	38	
220													31	40	
230													32	41	
240													33	42	
250													34	44	
260													35	45	
270													36	47	
280													37	48	
290													39	49	
300													40	51	
310															
320															
330															
340															

Dissipation Watt		Temperature rise [Kelvin]													
		ARIA 32 300×200×170		ARIA 43 400×300×170		ARIA 54 500×400×230		ARIA 64 600×400×230		ARIA 75 700×500×270		ARIA 86 800×600×300		ARIA 108 1,000×800×300	
Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top
20	27	33	19	23	12	15	11	14	8	10	7	8	5	6	
30	37	46	26	32	17	21	15	19	11	14	10	12	7	9	
40	47	57	33	40	22	26	19	24	14	18	12	15	9	11	
50			39	48	26	32	23	28	17	21	14	18	10	14	
60			45	56	30	37	27	33	20	24	17	21	12	16	
70					34	41	30	37	23	28	19	23	13	18	
80					38	46	33	41	25	31	21	26	15	20	
90					42	51	37	45	28	34	23	28	16	22	
100							40	49	30	37	25	31	18	24	
110									32	40	27	33	19	26	
120									35	43	29	36	21	27	
130									37	45	31	38	22	29	
140									39	48	33	41	23	31	
150									42	51	35	43	25	33	
160											37	45	26	35	
170											39	47	27	36	
180											41	50	29	38	
190													30	40	
200													31	41	
210													32	43	
220													34	45	
230													35	46	
240													36	48	
250													37	49	
260													39	51	
270															
280															
290															
300															
310															
320															
330															
340															



## General purpose enclosures technical details

### Power dissipation values – PolySafe

Dissipation Watt		Temperature rise [Kelvin]																								
		PS 220 500×500		PS 230 500×750		PS 320 750×500		PS 330 750×750		PS 340 750×1.000		PS 352 750×1.250		PS 420 1.000×500		PS 430 1.000×750		PS 440/442 1.000×1.000		PS 452 1.000×1.250		PS 530 1.250×750		PS 542/546 1.250×1.000		
		Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half
10	5	6	4	5	4	5																				
20	9	10	7	8	7	9	5	7	5	5			6	8	5	6										
30	12	14	10	11	10	12																				
40	15	18	12	14	12	15	10	12	8	9	6	7	11	13	8	10	6	7	5	6	7	9	5	6		
50	18	21	15	17	15	18																				
60	21	25	17	19	17	21	13	16	11	13	9	10	15	19	11	14	8	10	7	8	9	12	7	9		
70	23	28	19	22	19	24																				
80	26	31	21	24	22	27	17	20	14	16	11	13	19	23	14	18	11	13	9	11	11	15	9	11		
90	29	34	23	26	24	29																				
100	31	37	26	29	26	32	20	25	17	20	13	15	23	28	17	22	13	16	10	13	14	18	11	14		
120	36	43	30	33	30	37	23	28	19	23			26	33	19	25	15	18								
140	41	49	33	38	34	42	26	32	22	26	17	20	30	37	22	28	17	21	14	16	18	24	14	18		
160	46	54	37	42	38	47	29	36	24	29			33	41	25	31	18	23								
180	50	59	41	46	42	51	32	39	27	32	21	25	36	45	27	35	20	25	17	20	22	29	17	22		
200			45	50	45	56	35	43	29	34			39	49	29	38	22	27								
220			48	54	49	60	38	46	31	37	25	29	42	53	32	41	24	29	20	24	26	35	20	26		
240			52	58	52	65	41	50	33	40			46	57												
260						43	53	36	42	28	33	49	61	36	46	27	34	22	27	29	40	23	29			
280						46	56	38	45			52	64													
300						48	59	40	48	32	37			41	52	31	38	25	30	33	44	24	33			
350						55	67	45	54	36	42			46	59	35	43	28	34	37	50	26	37			
400							50	60	40	47			51	66	39	48	32	38	42	56	29	41				
450										44	52					42	52	35	42	46	61	32	45			
500										48	56					46	57	38	46	50	67	38	49			
550										52	61					50	62	41	50			42	53			
600																		44	53			45	57			
650																		47	57			47	61			
700																		50	60			50	65			

Dissipation Watt		Temperature rise [Kelvin]																								
		PS 220 500×500		PS 230 500×750		PS 320 750×500		PS 330 750×750		PS 340 750×1.000		PS 352 750×1.250		PS 420 1.000×500		PS 430 1.000×750		PS 440/442 1.000×1.000		PS 452 1.000×1.250		PS 530 1.250×750		PS 542/546 1.250×1.000		
		Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half
10	6	7	4	5	4	5							4	5												
20	10	12	8	9	8	9	6	8	5	6	4	5	7	8	5	7						4	6			
30	14	16	11	12	11	13							9	11												
40	17	20	13	15	13	16	11	13	9	11	7	9	12	14	9	12	7	9	5	7	7	10	5	7		
50	20	24	16	18	16	20							14	17												
60	24	28	19	21	18	23	15	18	12	15	10	13	16	20	12	16	10	12	8	9	10	14	7	10		
70	27	32	21	24	21	26																				
80	30	35	24	27	23	28	19	23	16	19	13	16	20	25	15	20	12	16	10	12	13	18	9	13		
90	33	39	26	29	25	31																				
100	36	42	28	32	28	34	23	28	19	23	16	19	24	30	18	24	15	19	11	14	15	21	11	15		
120	41	49	33	37	32	39	27	32	22	27	18	22	28	35	21	28					18	24				
140	47	55	37	42	36	45	31	36	24	30	21	25	32	39	24	32	19	25	15	19	20	28	15	20		
160	52	62	41	46	40	50	34	40	27	33	23	28	35	44	27	35					22	31				
180			45	51	44	55	37	44	30	37	25	30	39	48	29	39	23	30	18	23	24	34	18	24		
200			49	55	48	60	41	48	32	40	27	33	42	53	32	42										
220			53	60	52	64	44	52	35	43	30	36	46	57	35	46	28	35	22	27	29	40	21	28		
240						47	56	38	46	32	38	49	61	37	49											
260						50	60	40	49	34	41	52	65	40	52	32	40	25	31	33	45	24	32			
280							43	52	36	43					42	56										
300							45	55	38	46					44	59	35	45	28	34	37	51	27	36		
350								51	63	43	52				50	66	40	51	31	39	42	58	31	41		
400										48	58						45	57	35	43	46	64	34	46		
450										52	64						49	63	38	48	51	70	38	50		
500																	53	68	42	52			41	55		
550																			45	56			44	59		
600																			48	60			48	63		
650																			51	64			51	67		

## General purpose enclosures technical details

Power dissipation values – PolySafe

Dissipation Watt	Temperature rise [Kelvin]																								
	PS 220		PS 230		PS 320		PS 330		PS 340		PS 352		PS 420		PS 430		PS 440/442		PS 452		PS 530		PS 542/546		
	500×500	500×750	750×500	750×750	750×1.000	750×1.250	1.000×500	1.000×750	1.000×1.000	1.000×1.250	1.250×750	1.250×1.000	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	Half	Top	
20	7	9	6	7	6	8	4	6					5	7											
40	13	15	10	13	10	13	8	10	6	8	5	6	8	12	6	8	5	6	4	5	5	7			
60	17	21	14	17	14	19	11	14					11	16	8	11									
80	22	26	17	22	17	23	13	18	10	13	9	11	14	21	10	14	8	11	7	9	8	12	7	9	
100	26	31	21	26	20	28	16	21					17	25	12	16									
120	30	36	24	30	24	33	19	25	14	18	12	15	20	28	14	19	11	15	9	12	12	17	9	13	
140	34	41	27	34	27	37	21	28					22	32	16	22									
160	38	46	30	38	30	41	24	31	18	23	15	19	25	36	17	24	14	19	12	15	15	21	12	16	
180	42	50	33	42	33	45	26	34					27	39	19	26									
200	46	55	36	46	36	49	28	37	21	27	18	23	29	43	21	29	17	22	14	18	17	25	14	19	
220	50	59	39	50	38	53	30	40					32	46	23	31									
250			43	55	43	59	34	45	25	33	21	27	35	51	25	34	20	27	17	22	21	30	17	23	
300			50	64	49	68	39	52	29	38	25	31	41	59	29	40	23	31	19	25	24	34	19	27	
350							44	58	33	43	28	36	46	67	33	45	26	35	22	29	27	39	22	30	
400							49	65	37	48	31	40	51	75	36	50	29	39	24	32	30	43	24	34	
450							54	71	41	53	34	43			40	55	32	43	27	35	33	48	27	37	
500									44	57	37	47			44	60	35	47	29	38	36	52	29	40	
550									48	62	40	51			47	65	38	51	32	41	39	56	31	43	
600									51	66	43	55			50	69	41	54	34	44	42	60	34	46	
700											49	62					46	61	38	50	48	68	38	53	
800											54	69					51	68	43	56	53	76	42	58	
900																			47	61			47	64	
1.000																			51	67			51	70	

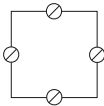
# General purpose enclosures technical details

## MultiBox – dimensions

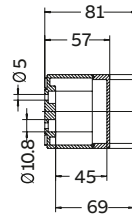
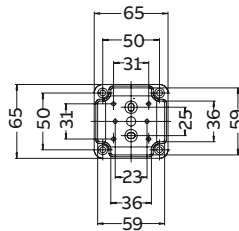
**MB11 - MB42**  
**Polystyrene/  
 Polycarbonate**

**Polycarbonate\***

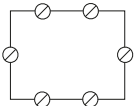
MB11



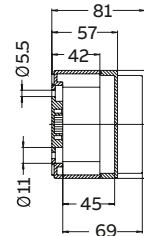
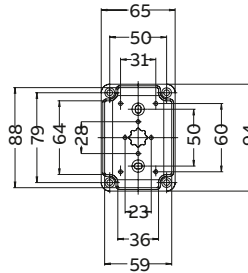
Metric knockouts  
 ∅ = M16/20



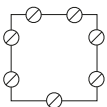
MB21



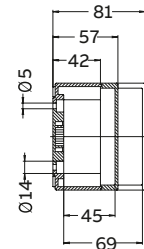
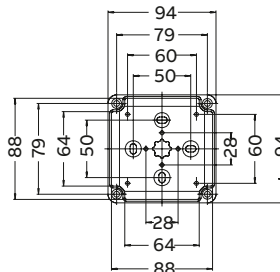
Metric knockouts  
 ∅ = M16/20



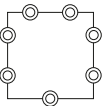
MB22



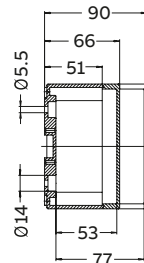
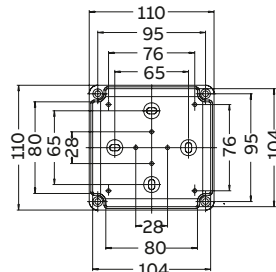
Metric knockouts  
 ∅ = M16/20



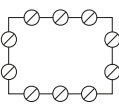
MB33



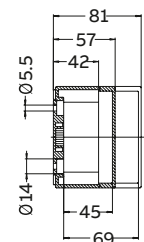
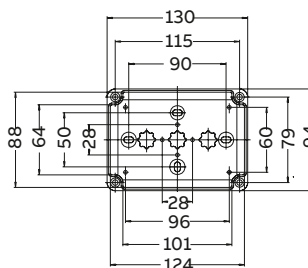
Metric knockouts  
 ∅ = M20/25



MB42



Metric knockouts  
 ∅ = M16/20



(\* ) Smooth = one metric knock-out on short side for power supply cord

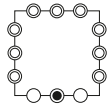
# General purpose enclosures technical details

## MultiBox – dimensions

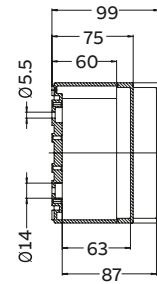
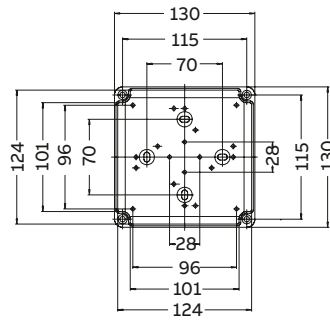
**MB44-MB75**  
**Polystyrene/**  
**Polycarbonate**

**Polycarbonate\***

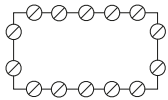
MB44



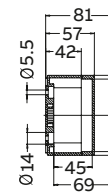
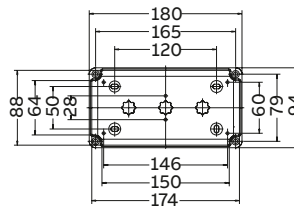
Metric knockouts  
 ○ = M20  
 ⊙ = M20/25  
 ● = M25/32



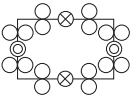
MB52



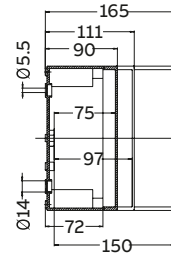
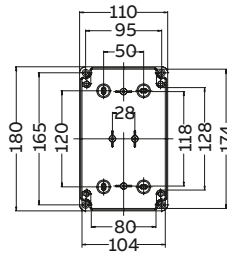
Metric knockouts  
 ⊙ = M16/20



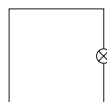
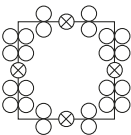
MB53



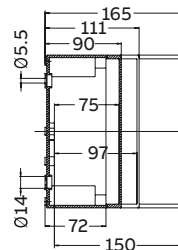
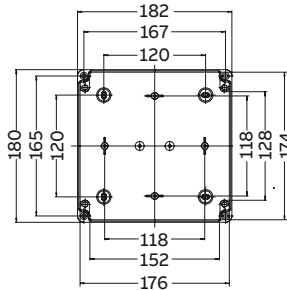
Metric knockouts  
 ○ = M20  
 ⊙ = M20/25  
 ● = M25/32  
 ⊗ = M32/40



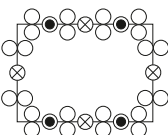
MB65



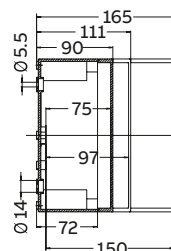
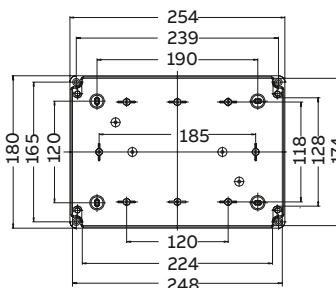
Metric knockouts  
 ○ = M20  
 ⊗ = M32/40



MB75



Metric knockouts  
 ○ = M20  
 ● = M25/32  
 ⊗ = M32/40



(\* ) Smooth = one metric knock-out on short side for power supply cord

## General purpose enclosures technical details

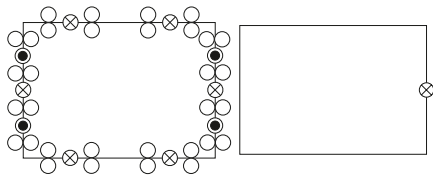
### MultiBox – dimensions

#### MB87

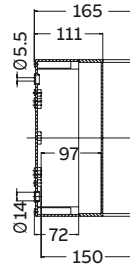
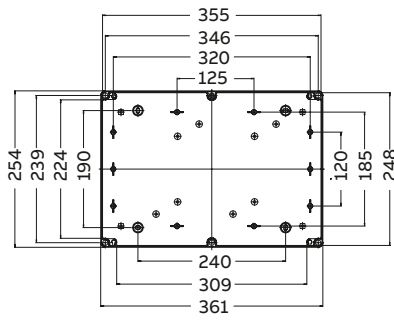
Polystyrene/  
Polycarbonate

Polycarbonate\*

MB87



Metric  
knockouts  
○ = M20  
● = M25/32  
⊗ = M32/40



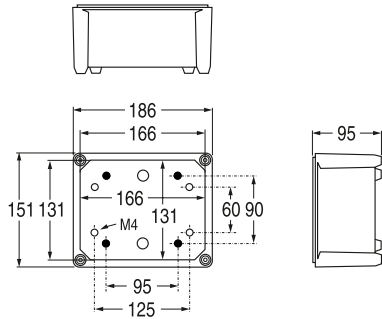
(\*) Smooth = one metric knock-out on short side for power supply cord

# General purpose enclosures technical details

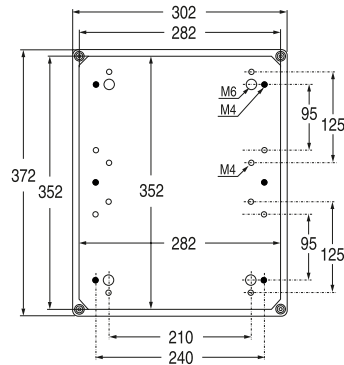
## APO – dimensions

### Bases

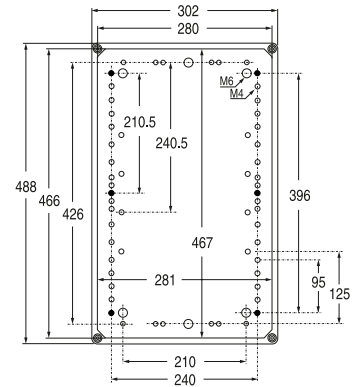
**APO 1**



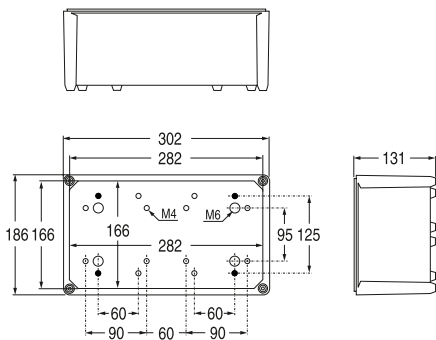
**APO 71**



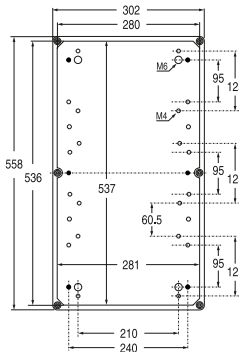
**APO 51**



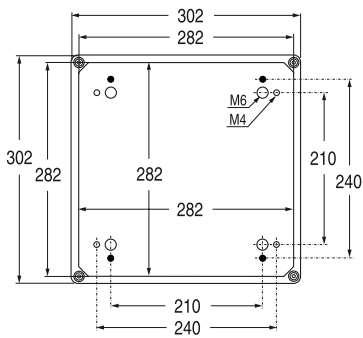
**APO 31**



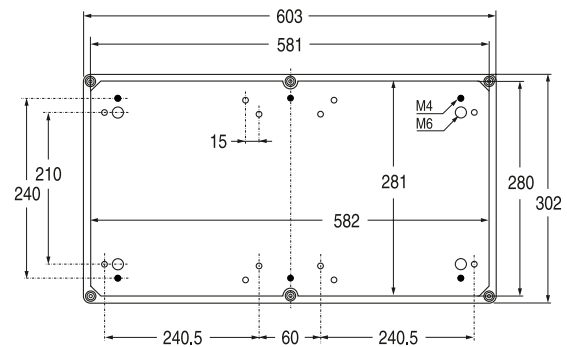
**APO 81**



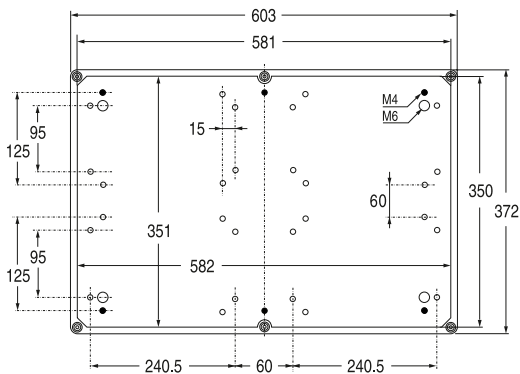
**APO 41**



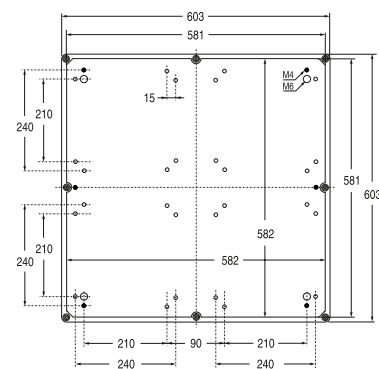
**APO 61**



**APO 11**



**APO 12**



● = insert standard delivered in APO boxes (base + cover)

○ = with insert M4 or M6

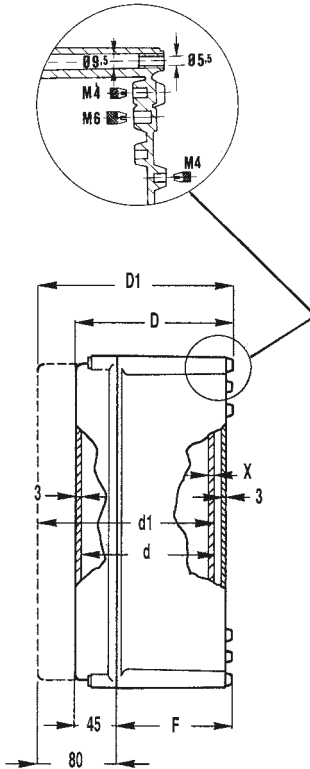
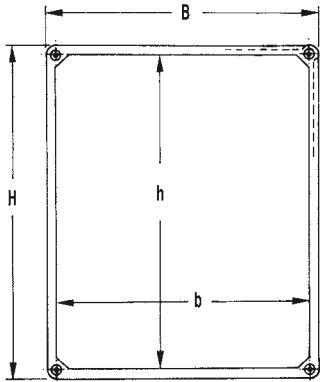


# General purpose enclosures technical details

APO - dimensions

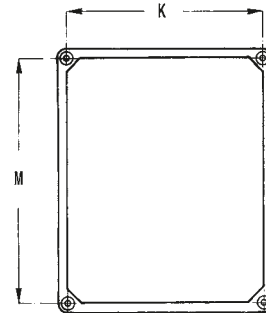
For mounting

## Boxes

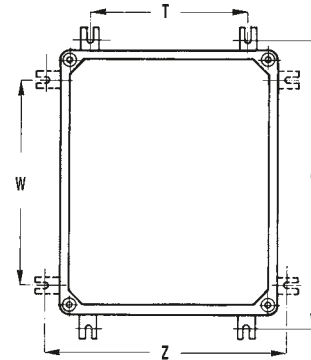


## Wall mounting

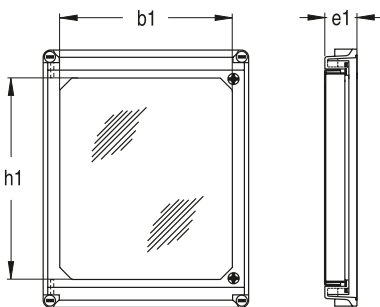
Direct to the wall



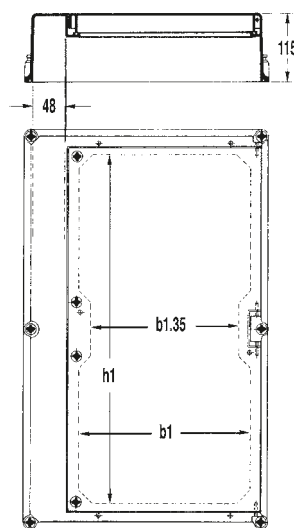
With stainless steel mounting brackets



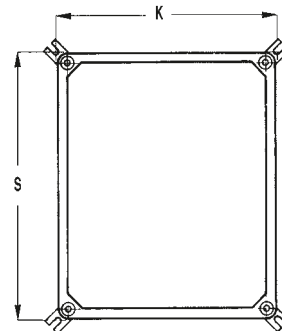
## Transparent hinged cover



## APO 11 Hinged cover with side flange



With polyamide mounting brackets



## Dimensions

H	B	D	D1	h	b	d	d1	F	h1	b1	e1	Type	K	M	R	S	T	V	W	Z
186	151	140	-	166	131	118-X	-	95	-	-	-	APO 1	131	166	155	190	-	-	-	-
302	186	175	-	282	166	150-X	-	130	110	260	45	APO 31	282	166	190	306	125	312	241	197
302	302	175	-	282	282	150-X	-	130	225	260	45	APO 41	282	282	306	306	241	313	241	313
372	302	175	-	352	282	150-X	-	130	295	260	45	APO 71	282	352	376	306	241	383	311	313
488	302	175	210	467	281	150-X	185-X	130	410	260	45	APO 51	280	466	490	304	241	499	427	313
558	302	175	210	537	281	150-X	185-X	130	-	-	-	APO 81	280	536	561	305	241	569	497	313
603	302	175	210	582	281	150-X	185-X	130	525	260	45	APO 61	280	581	606	305	241	614	542	313
603	372	175	210	582	351	150-X	185-X	130	525	260	115	APO 11	350	581	606	374	311	614	542	383
603	603	175	210	582	582	150-X	185-X	130	-	-	-	APO 12	581	581	605	605	542	614	542	614

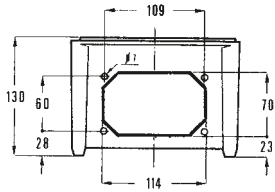
X = thickness of mounting plate

## General purpose enclosures technical details

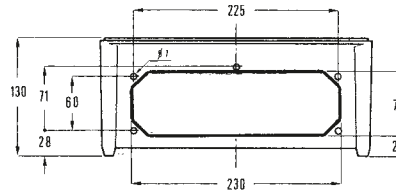
APO – dimensions

Cut-outs in side panels

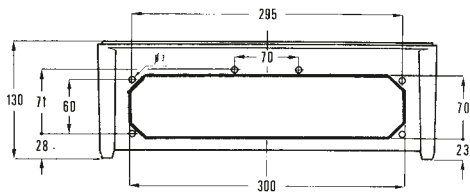
Side 185



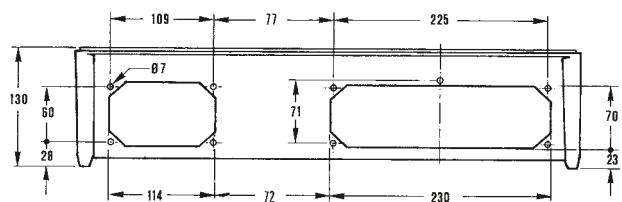
Side 300



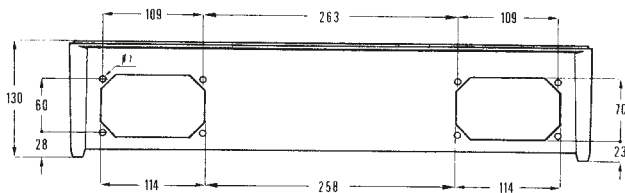
Side 370



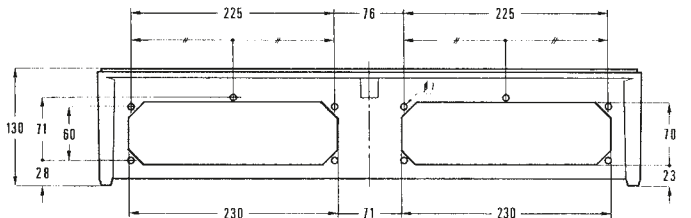
Side 485



Side 555



Side 600



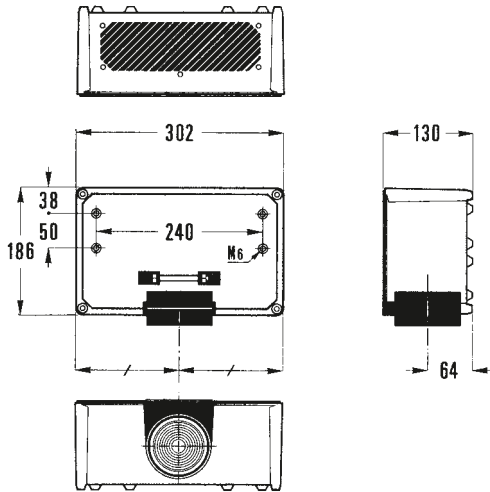
# General purpose enclosures technical details

APO – dimensions

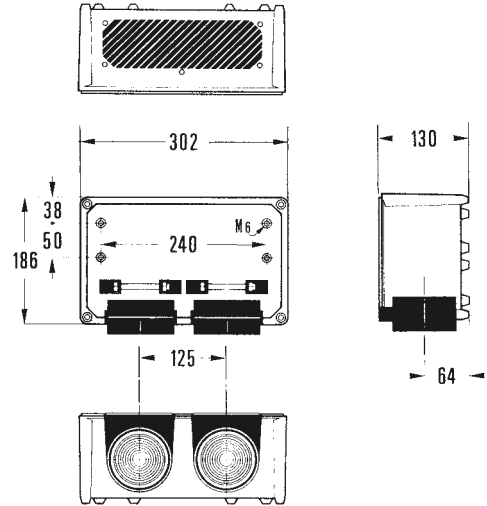
Cable-end boxes

**APO 31**

1 entry

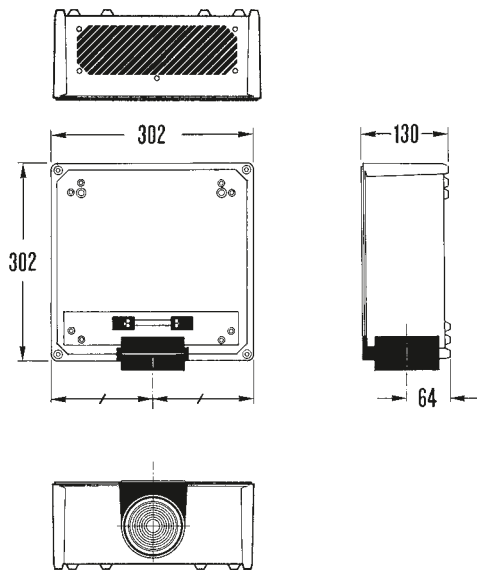


2 entries



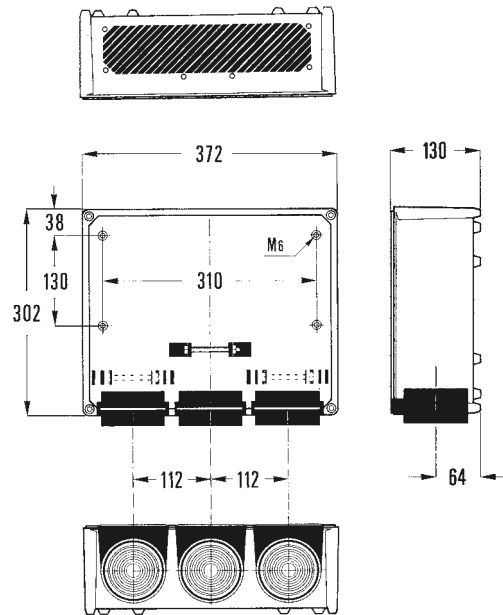
**APO 41**

1 entry



**APO 71**

3 entries

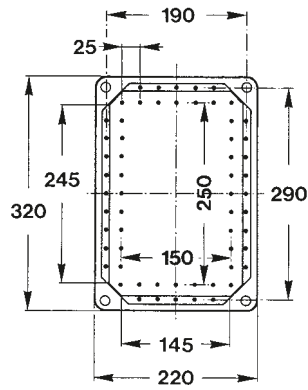


## General purpose enclosures technical details

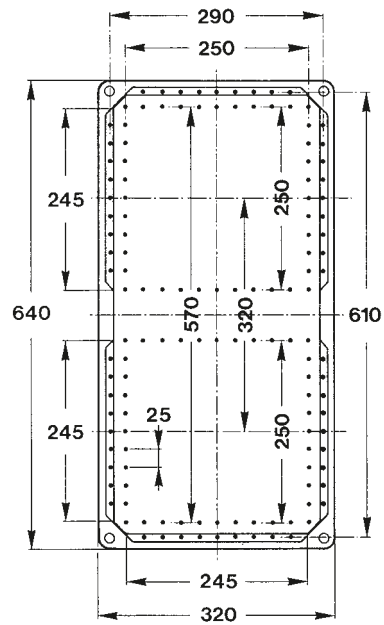
### VMS – dimensions

#### Bases

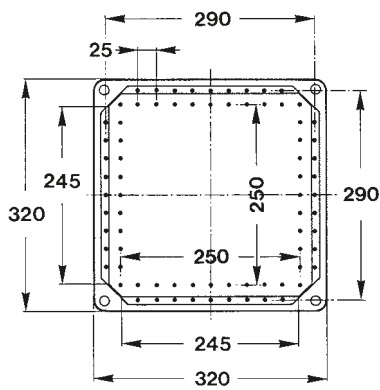
VMS 32



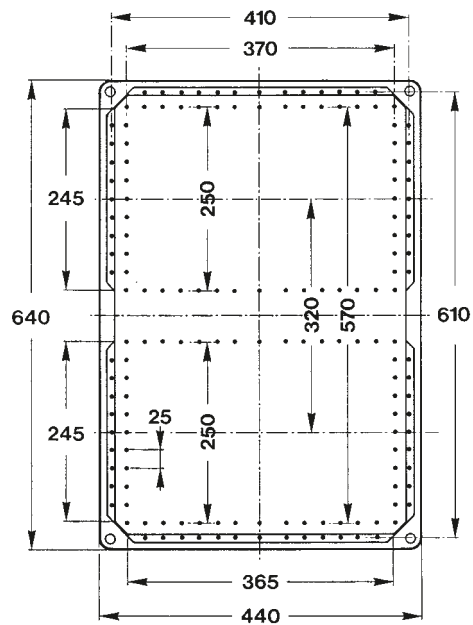
VMS 63



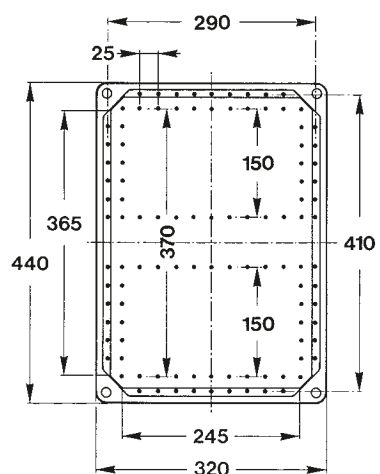
VMS 33



VMS 64



VMS 34



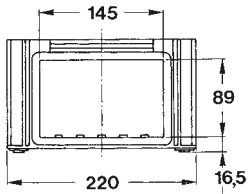
# General purpose enclosures technical details

## VMS – dimensions

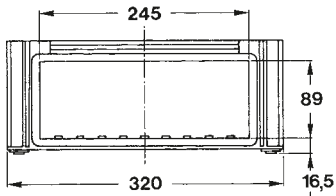
### Bases

#### Openings in the base side walls

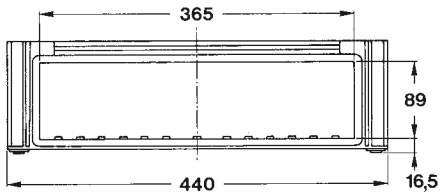
##### Side 220



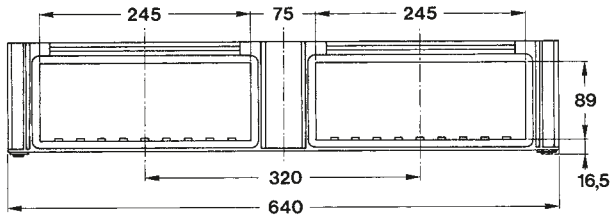
##### Side 320



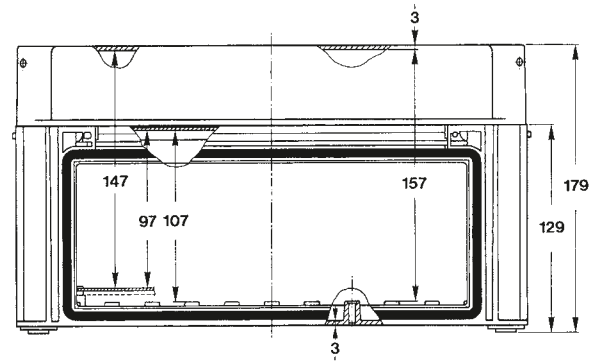
##### Side 440



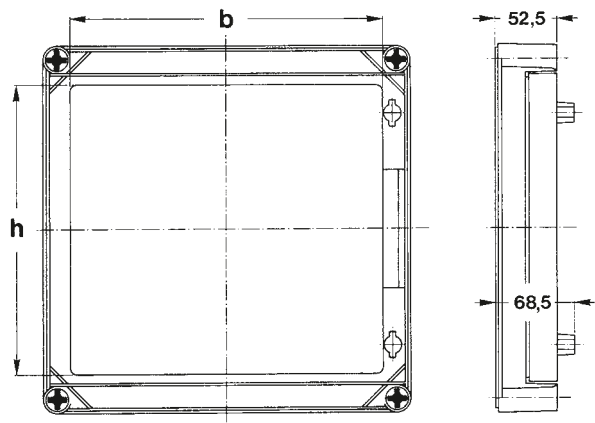
##### Side 640



#### Built-in heights



#### Pivoting covers



Type	Dimensions	b	h
VMS 33	320×320mm	260	241
VMS 43	440×320mm	260	361

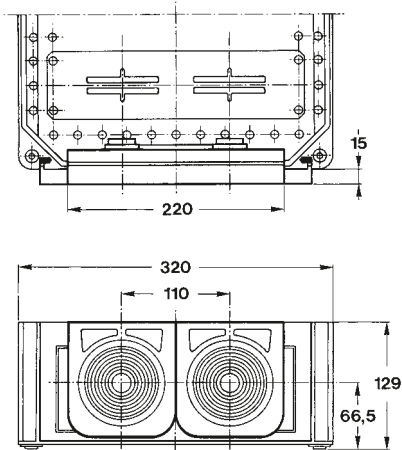
## General purpose enclosures technical details

### VMS – dimensions

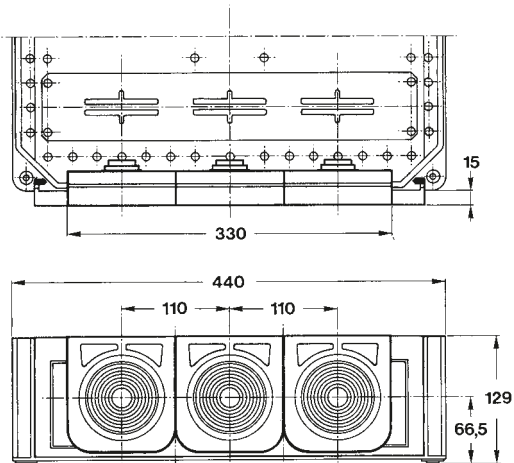
#### Bases

#### Cable end plates and universal cable stress releases

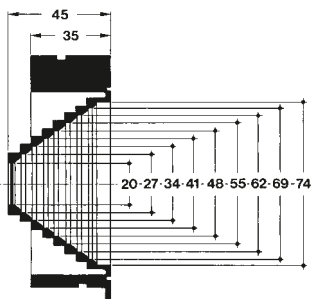
##### Side 320



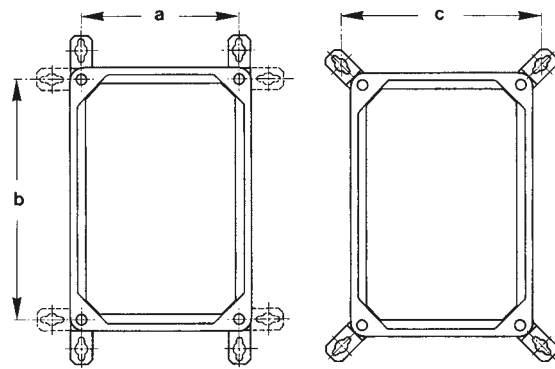
##### Side 440



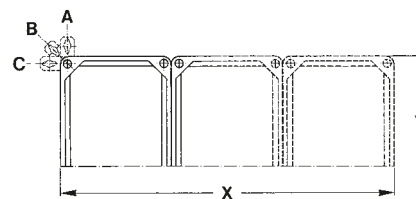
##### Side view



#### Mounting brackets



Type	Dimensions	a	b	c
VMS 32	320×220 mm	193	293	254
VMS 33	320×320 mm	293	293	354
VMS 43	440×320 mm	293	413	354
VMS 63	640×320 mm	293	613	354
VMS 64	640×440 mm	413	613	474



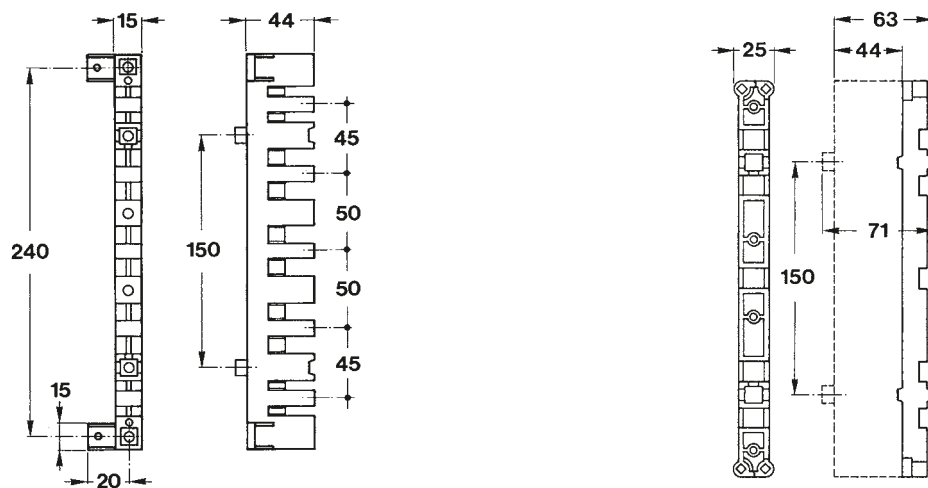
Centre dimensions		
A	X - 27	Y + 40
B	X + 34	Y + 34
C	X + 40	Y - 27

## General purpose enclosures technical details

VMS – dimensions

Busbar supports

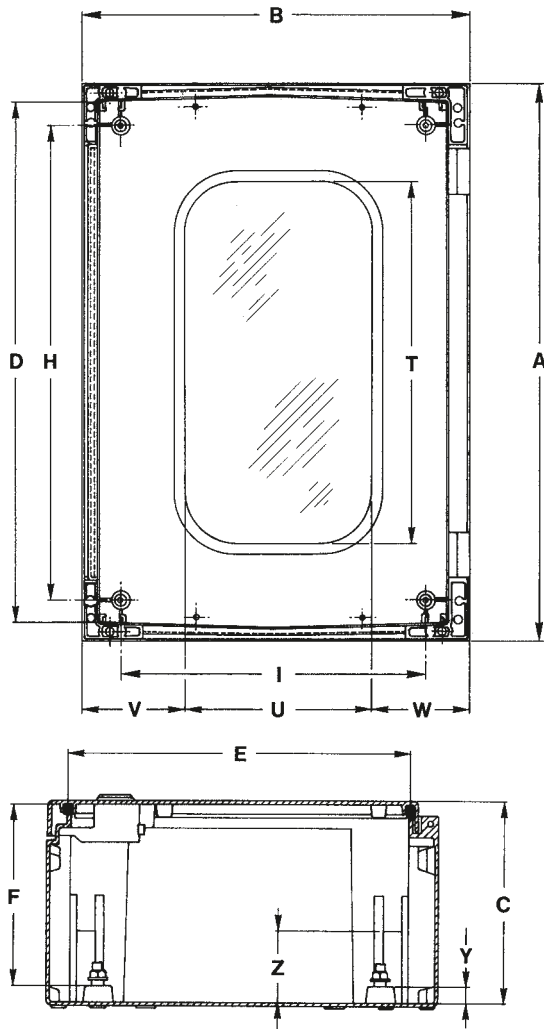
630 A-1 250 A - parallel



# General purpose enclosures technical details

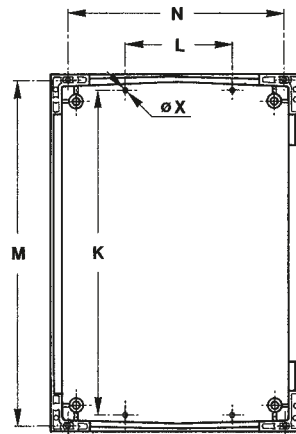
## ARIA – dimensions

Cabinets

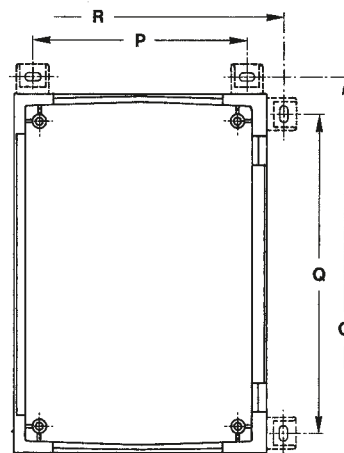


Wall mounting

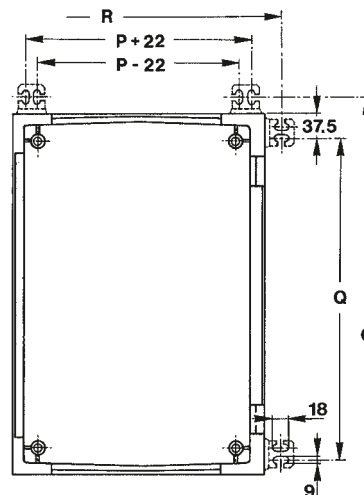
Direct to the wall



By fixing lugs in polyamide



By fixing lugs in stainless steel



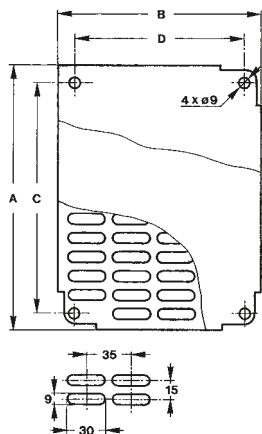
Dimensions	ARIA 32	43	54	64	75	86	108
A	315	415	515	615	735	835	1035
B	215	315	415	415	535	635	835
C	170	170	230	230	270	300	300
D	275	375	475	575	675	775	975
E	170	270	370	370	470	570	770
F	148	148	208	208	248	278	277
H	225	325	425	525	625	725	925
I	125	225	325	325	425	525	725
K	275	375	475	575	675	775	975
L	70	150	200	200	300	400	600
M	295	395	495	595	-	-	-
N	155	255	355	355	-	-	-
O	362	462	562	662	782	882	1082
P	162	262	362	362	482	582	782
Q	262	362	462	562	682	782	982
R	262	362	462	462	582	682	882
T	-	280	380	480	580	680	880
U	-	130	230	230	330	430	630
V	-	70	70	70	80	80	80
W	-	115	115	115	125	125	125
X	6	6	6	6	8	8	8
Y	14	14	15,5	15,5	15,5	15,5	15,5
Z	28	25	88	88	118	148	148



# General purpose enclosures technical details

## ARIA – dimensions

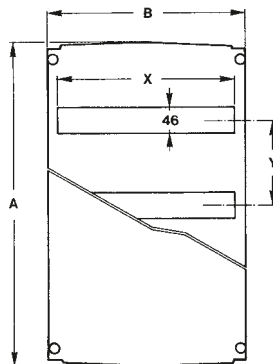
### Mounting plates



Dimensions				
ARIA	A	B	C	D
32	250	150	225	125
43	350	250	325	225
54	450	350	425	325
64	550	350	525	325
75	650	450	625	425
86	750	550	725	525
108	950	750	925	725

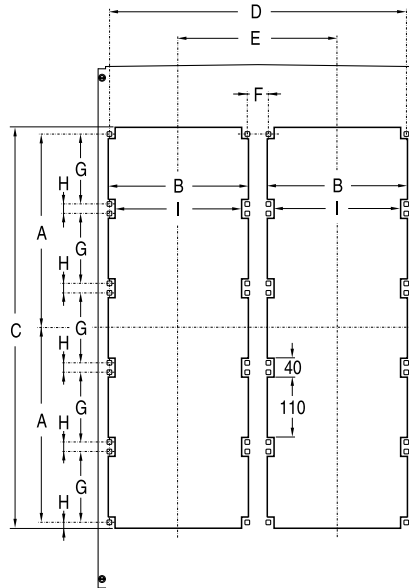
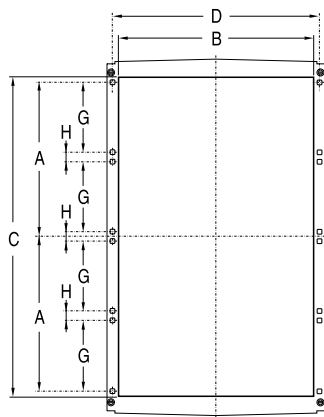
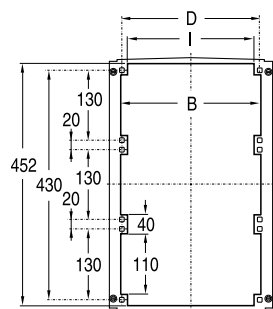
### Cover plates

#### Plain and with openings for DIN-rail equipment



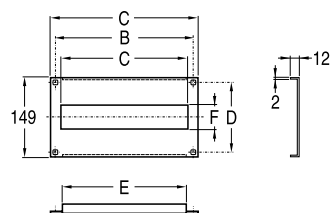
Dimensions				
ARIA	A	B	X	Y
32	2 rows 279	162	108	125
43	2 rows 379	262	216	150
54	3 rows 479	362	324	150
64	3 rows 579	362	324	150
75	4 rows 690	462	396	150
86	4 rows 790	562	2 x 216	150
108	5 rows 990	762	2 x 324	150

### Cover plates with cut-out for individual modular cover plates



Dimensions										
Type	A	B	C	D	E	F	G	H	I	Mod.
ARIA 43	140	216	302	236	-	-	130	20	-	24
ARIA 54	-	308	-	303	-	-	-	-	283	51
ARIA 64	-	326	-	336	-	-	-	-	316	54
ARIA 75	290	400	602	428	-	-	130	20	-	88
ARIA 86	290	216	602	524	288	52	130	20	-	96
ARIA 108	365	326	752	732	396	60	130	20	316	180

### Individual modular cover plate

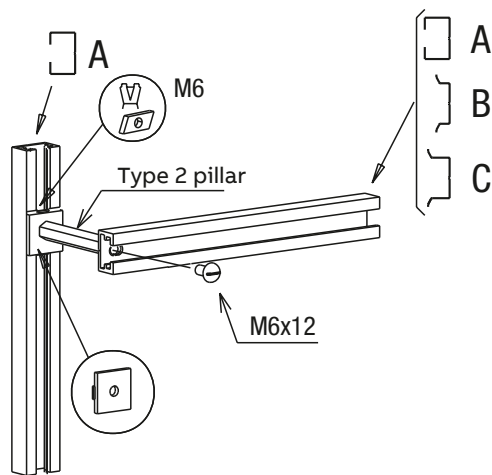
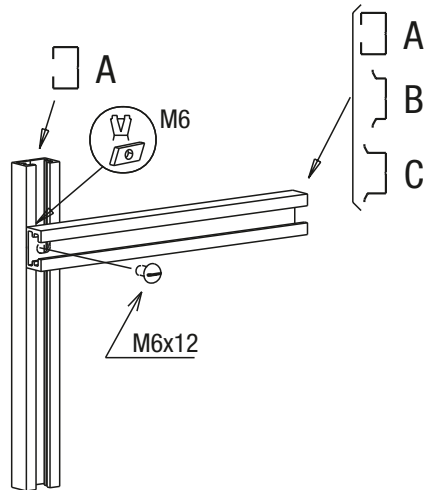


Dimensions						
Type	A	B	C	D	E	F
831796	255	236	216	130	210	46
831797	255	236	0	130	210	0
831798	322	303	306	130	280	46
831799	322	303	0	130	280	0
831800	355	336	324	130	312	46
831801	355	336	0	130	312	0
831802	455	428	396	130	396	46
831803	455	428	0	130	396	0

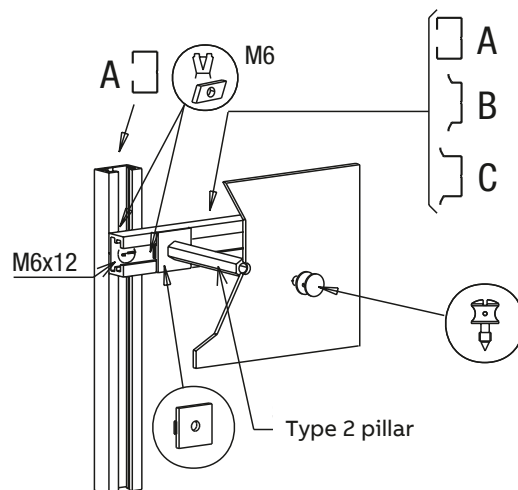
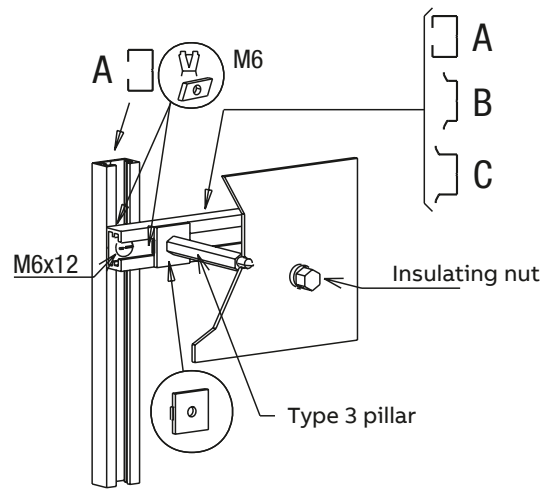
## General purpose enclosures technical details

### PolySafe – Alu frame mounting applications

Alu frame with progressive adjustment

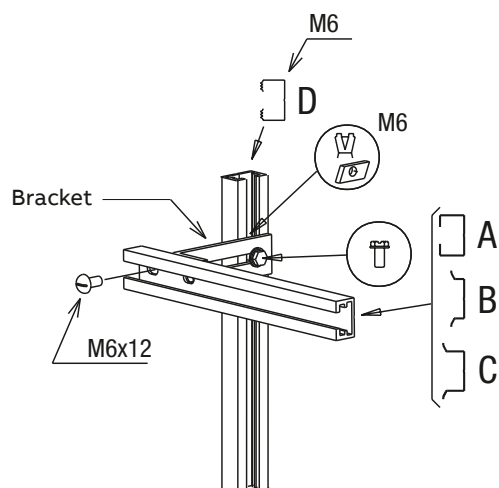


Installation of the cover plate



Note:  
Same installation technique as for the cover plate on the mounting plate.

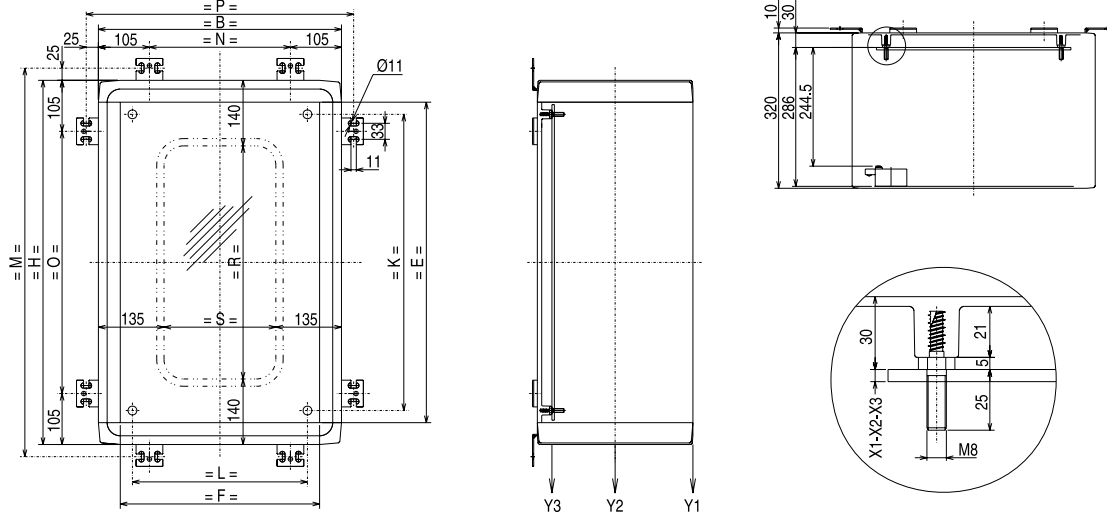
Alu frame with adjustment in 12.5 mm increments



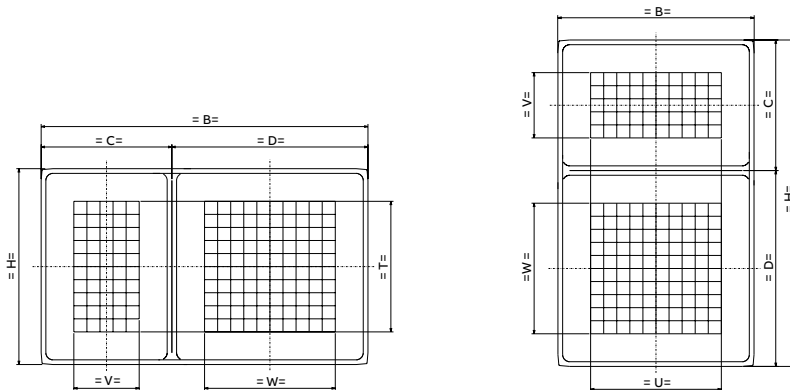
# General purpose enclosures technical details

## PolySafe – dimensions

### Enclosures



### Usable mounting space on the doors



### Dimensions

Type	H	B	C	D	E	F	K	L	M	N	O	P	R	S	T	U	V	W	X1	X2	X3	Y1	Y2	Y3
220	500	500			410	410	360	360	550	290	290	550	220	230	250	250			5	2	-	8	80	110
230	500	750			410	660	360	610	550	540	290	800	220	480	250	500			5	2	-	8	80	110
320	750	500			660	410	610	360	800	290	540	550	470	230	500	250			5	2	-	8	80	110
330	750	750			660	660	610	610	800	540	540	800	470	480	500	500			5	2	-	8	80	110
340	750	1.000			660	910	610	860	800	790	540	1050	470	730	500	750			5	2	-	6	80	110
352	750	1.250	500	750	660		610	1.110	800	1.040	540	1.300			500		250	500	5	2	10	5	80	110
420	1.000	500			910	410	860	360	1.050	290	790	550	720	230	750	250			5	2	-	8	80	110
430	1.000	750			910	660	860	610	1.050	540	790	800	720	480	750	500			5	2	-	8	80	110
440	1.000	1.000			910	910	860	860	1.050	790	790	1.050	720	730	750	750			5	2	10	6	80	110
442	1.000	1.000	500	500	910		860	860	1.050	790	790	1.050			750		250	250	5	2	10	6	80	110
452	1.000	1.250	500	750	910		860	1.110	1.050	1.040	790	1.300			750		250	500	5	2	10	5	80	110
530	1.250	750			1.160	660	1.110	610	1.300	540	1.040	800	970	480	1.000	500			5	2	10	8	80	110
542	1.250	1.000	500	750		910	1.110	860	1.300	790	1.040	1.050				750	250	500	5	2	10	6	80	110
546	1.250	1.000	500	750		910	1.110	860	1.300	790	1.040	1.050				750	250	500	5	2	10	6	80	110

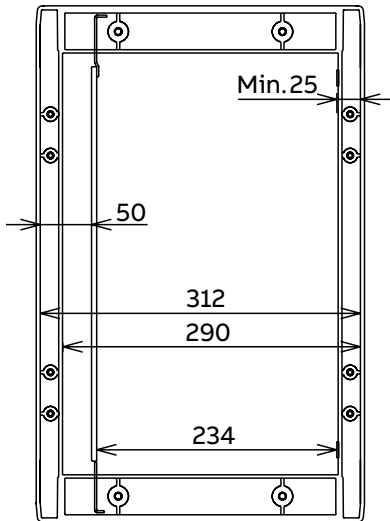
Enclosure external dimensions | Door dimensions | Enclosure let-through dimensions | Centres of the mounting plate | Centres for wall mounting | Window surface | Usable mounting space on the doors | Thickness of the mounting plate | Admissible charge in kg

X1 = pertinax 5mm  
 X2 = metal perforated 2mm  
 X3 = pertinax 10mm

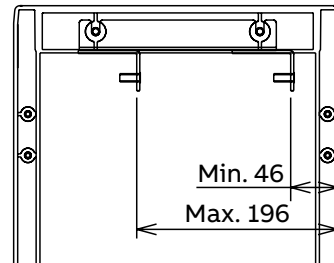
## General purpose enclosures technical details

### PolySafe – dimensions

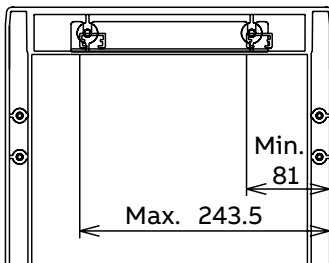
Inner door



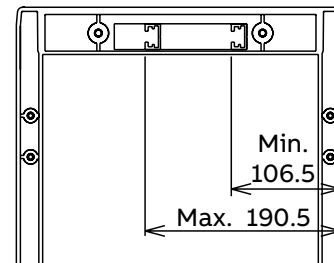
Adjustable mounting plate



Adjustable mounting frame in steps of 12.5 mm



Continuously adjustable mounting frame



# General purpose enclosures technical details

## Compliance with standards and technical characteristics – Gemini

### Reference Standards

Standard IEC 62208 (“Empty enclosures for low voltage switch-gear and control gear assemblies. General requirements”), that has implemented at an international level the Standard EN 50298, presently EN 62208, is the prescriptive reference for Gemini switchboards.

The object of Standard CEI EN 50298 is to formulate definitions, classifications, characteristics and test prescriptions for cases designed to be used as part of protection and operating equipment (switchboards) in compliance with the Standards of the EN 61439 series, that have a maximum rated voltage of 1000 V in alternating current for maximum frequencies of 1000 Hz or 1500 V in direct current and are suitable for general use in both internal and external applications.

The Standard applies to empty enclosures, before the user has installed protection and operating devices inside them. The Standard does not apply to enclosures with structural and functional characteristics that make them subject to other prescriptions (e.g. cases for domestic installations and the like). In this case Standards IEC 60670 – CEI 23-48 (“General requirements for enclosures for accessories for household and similar fixed electrical installations”) and CEI 23-49 (“Enclosures for accessories for household and similar fixed electrical installations. Part 2: particular requirements for enclosures for protection devices and accessories dissipating a considerable power in normal use”) apply. On the basis of the indications of the ABB SACE technical characteristics’ table, the installer may have to certify compliance with Standards CEI 23-51 – EN 61439 – CEI 17-13-1 (“Part 1: standard equipment subject)

# General purpose enclosures technical details

## Compliance with standards and technical characteristics – Gemini

**Gemini switchboards features table**

Size	1	2	3	4	5	6
Gemini with transparent door	1SL0211A00	1SL0212A00	1SL0213A00	1SL0214A00	1SL0215A00	1SL0216A00
Gemini with opaque door	1SL0201A00	1SL0202A00	1SL0203A00	1SL0204A00	1SL0205A00	1SL0206A00
External dimensions WxHxD (mm)	335x400x210	460x550x260	460x700x260	590x700x260	590x855x360	840x1005x360
Internal dimensions WxHxD (mm)	250x300x180	375x450x230	375x600x230	500x600x230	500x750x330	750x900x330
IP degree	IP66	IP66	IP66	IP66	IP66	IP66
Double isolation	Si	Si	Si	Si	Si	Si
IK degree	10	10	10	10	10	10
GWT (°C)	750	750	750	750	750	750
Operating temperature	-25 °C ... +100 °C	-25 °C ... +100 °C	-25 °C ... +100 °C	-25 °C ... +100 °C	-25 °C ... +100 °C	-25 °C ... +100 °C
No. of DIN modules	24 (12x2)	54 (18x3)	72 (18x4)	96 (24x4)	120 (24x5)	216 (36x6)
No. of vertical modules (H=150 mm)	2	3	4	4	5	6
Material	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic
Color	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035	Gray RAL7035
Fast wiring system	Unifix L	Unifix L	Unifix L	Unifix L	Unifix L	Unifix L
No. of locks	2	2	2	2	3	3
Rated frequency	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz	50-60 Hz
<b>STANDARD CEI 23-51<sup>(1)</sup></b>						
- Max. dispersible power <sup>(2)</sup>	45 W	72 W	85 W	102 W	156 W	248 W
<b>STANDARD CEI EN 61439</b>						
<b>Over-temperature (par. 8.2.1)<sup>(3)</sup></b>						
- Max. dispersible power with over-temperature of 25 °C	40 W	65 W	77 W	91 W	133 W	205 W
- Max. dispersible power with over-temperature of 30 °C	45 W	72 W	85 W	102 W	156 W	248 W
- Max. dispersible power with over-temperature of 35 °C	52 W	85 W	100 W	121 W	187 W	299 W
- Max. dispersible power with over-temperature of 40 °C	62 W	100 W	118 W	143 W	221 W	355 W
<b>Impulse withstand (par. 8.2.2)</b>						
- Rated service voltage <sup>(4)</sup>	≤ 800 V	≤ 800 V	≤ 800 V	≤ 800 V	≤ 800 V	≤ 800 V
- Rated impulse withstand voltage	8 kV	8 kV	8 kV	8 kV	8 kV	8 kV

<sup>(1)</sup> Limits of applicability of the standard CEI 23-51

The standard may be applied only when the wired switchboard meets all the following conditions:

- fixed installation with average ambient temperature up to 25 °C, occasionally up to 35 °C;
- alternate current with rated voltage up to 440 V;
- input rated current up to 125 A;
- assumed short circuit rated current up to 10 kA or limiting current devices protection with limited current up to 15 kA at their rated breaking capacity.

<sup>(2)</sup> Maximum dissipation power data was obtained following the indications of Standard CEI 23-49, with a temperature difference of Dt=30 °C.

<sup>(3)</sup> Note to paragraph 8.2.1 of Standard CEI EN 61439-1

The table gives the thermal dissipation values of Gemini switchboards when they are wall-mounted. The dispersible power figures (in Watts) vary according to the overtemperature allowed in the accessible parts of the switchboard and must be compared with the total amount of power dissipated by all the components installed inside the switchboard taking into due account the factor of contemporaneity.

<sup>(4)</sup> Rated service voltage according to CEI EN 61439-1 1000V AC and 1500V DC

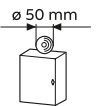
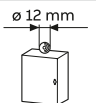
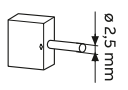
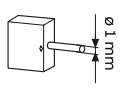
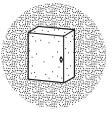
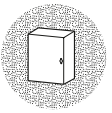
## General purpose enclosures technical details

### IP degree of protection – Gemini

As indicated in the following table, the IP degree of protection is expressed by two characteristic numbers depending on the behavior of the product to which it refers according to the prescriptions of CEI 70-1 and IEC 529 Standards.


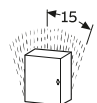
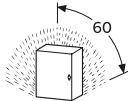
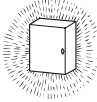
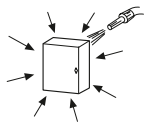
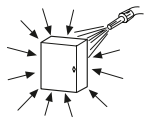
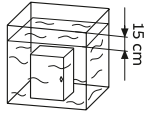
With IP66 degree of protection, Gemini switchboards are totally protected against the penetration of dusts and sprays of seawater.

#### First number: protection against the penetration of solid bodies

IP		
0		No protection
1		Protection against the penetration of solid bodies with a diameter of over 50mm
2		Protection against the penetration of solid bodies with a diameter of over 12 mm or a length of over 80 mm
3		Protection against the penetration of solid bodies with a diameter or thickness of over 2,5 mm
4		Protection against the penetration of solid bodies with a diameter or thickness of over 1,0 mm
5		Protection against the penetration of dusts
6		Total protection against the penetration of dusts

1<sup>st</sup> number defined by Standards CEI 70-1 – IEC 60529

#### Second number: protection against the penetration of water


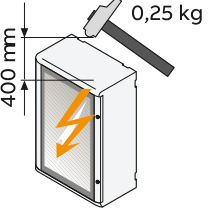
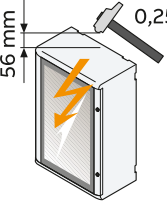
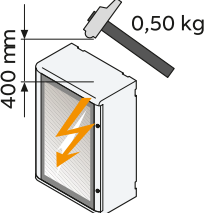
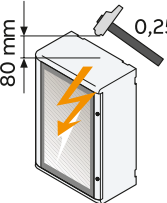
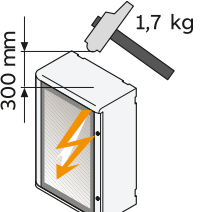
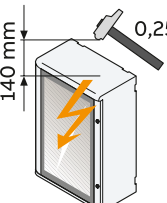
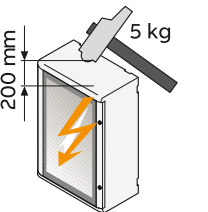
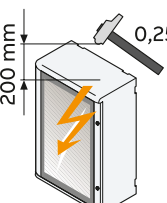
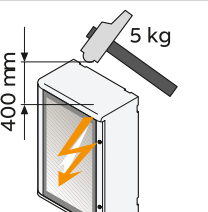
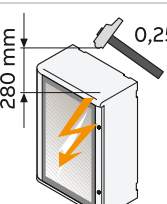
IP		
0		No protection
1		Protection against the penetration of drops of water falling vertically
2		Protection against the penetration of drops of water falling at an angle of up to 15° from vertical
3		Protection against the penetration of drops of water falling at an angle of up to 60° from vertical
4		Protection against the penetration of splashes of water from all directions
5		Protection against the penetration of water sprayed by a hose from all directions
6		Protection against the penetration of sea water
7		Protection against the penetration of water during temporary immersion
8		Protection against the penetration of water during continual immersion

2<sup>nd</sup> number defined by Standards CEI 70-1 - IEC 60529.

## General purpose enclosures technical details

### IK degree of resistance to impacts – Gemini

The IK degree is expressed in Joules in compliance with Standard CEI EN 50102.

IK 0		No protection against impacts		Resistance to impacts with impact energy up to 1,00 J
IK 01		Resistance to impacts with impact energy up to 0,150 J		Resistance to impacts with impact energy up to 2,00 J
IK 02		Resistance to impacts with impact energy up to 0,200 J		Resistance to impacts with impact energy up to 5,00 J
IK 03		Resistance to impacts with impact energy up to 0,350 J		Resistance to impacts with impact energy up to 10,00 J
IK 04		Resistance to impacts with impact energy up to 0,500 J		Resistance to impacts with impact energy up to 20,00 J
IK 05		Resistance to impacts with impact energy up to 0,700 J		




## General purpose enclosures technical details

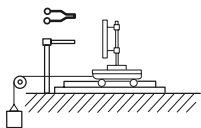
### Double insulation and self-extinguishing tests – Gemini

#### Double insulation

Double insulation guarantees that Gemini is protected against indirect contacts on condition that the manufacturer's instructions are observed when carrying out mounting

and wiring operations on the switchboard and that the appropriate accessories are used (e.g. screw-cover caps). Double insulation is indicated by the graphic symbol 

#### Self-extinguishing tests

Test text	Equipment required	Compliance with Standards	Purpose	Test results of the test	Test conditions		
					Heat source	Test period	Characteristic elements
Glow-wire test		IEC 695-2-1 CEI 50-11	To assess the danger of fire by simulating thermal stresses produced by heat sources or by ignition (e.g. glowing elements, resistances overloaded for short intervals)	If a flame is generated, it must go out within 30 seconds of removing the glow wire. The test is conducted at temperatures of: - 650 °C - 750 °C - 850 °C - 960 °C	Glow wire ø 4 mm	30 sec.	Assessment of the time it takes for the flame to go out

## General purpose enclosures technical details

### Resistance to chemical agents – Gemini

#### Resistance to chemical agents

The behavior of Gemini switchboards in the presence of chemical agents is indicated in the table with the symbols:

Cold water	■
Hot water	■
Sulfuric acid 50%	■
Hydrochloric acid 36%	■
Acetic acid 60%	■
Benzol	▲
Gasoline	▲
Acetone	■
Ethyl alcohol	■
Ammonia	■
Dichloromethane	▲
Diesel oil - naphtha	▲
Mineral oils and greases	■
Food oils and greases	■
Perchloroethylene	▲
Trichlorethene	▲
Ethylether	■
Toluene	▲
Methanol	■
Wine	■
Fruit juices	■
Laundry lye	■
Detergents	■

Caption:

- high resistance
- ▲ limited resistance

## General purpose enclosures technical details

### Integration with ABB products – Gemini

#### Installation of Tmax XT moulded-case circuit breakers

The table indicates the type of installation required for the different versions of Tmax XT moulded-case circuit breakers in Gemini switchboards.

Before carrying out wiring operations check compliance with Standards on the basis of the technical characteristics of the switchboard and circuit breaker (CEI EN 60439-1).

Size	Installation	XT1				XT2				XT3				XT4			
		3p	4p	3p D	4p D	3p	4p	3p D	4p D	3p	4p	3p D	4p D	3p	4p	3p D	4p D
1	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	O1	■	■	■	■	■	■	■	■	■	■			■	■		
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
4	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
6	D	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	K1	■	■	■													
	K2		■	■	■					■	■	■	■				
	O1	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■
	O2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

#### Caption

- D, installation on DIN rail
- K1, installation with Tmax kit H = 150 (holes made)
- K2, installation with Tmax kit H = 300 (holes made)
- O1, installation on modular plate (1 module, H = 150 mm)
- O2, installation on modular plate (2 modules, H = 300 mm)
- T, installation on total base plate

## General purpose enclosures technical details

### Disposal instructions

#### Information about how to dispose of Gemini switchboards when they reach the end of their life

Instructions are given below about the procedures to adopt when disposing of Gemini switchboards at the end of their life cycle.

The text is drafted in the form of a table referring to Standard CEI 308-1 "Information table concerning the end of life of electric and electronic products and a compilation guide", 2002 -04, ed. 1, pamphlet number 308-1 6454.

#### Section I – Global product specification

Name	Type of product			External dimensions WxHxD (mm)
Size	With transparent door	With opaque door	Rated weight (kg)	
1	1SL0211A00	1SL0201A00	4,3	335x400x210
2	1SL0212A00	1SL0202A00	7,9	460x550x260
3	1SL0213A00	1SL0203A00	9,5	460x700x260
4	1SL0214A00	1SL0204A00	12,0	590x700x260
5	1SL0215A00	1SL0205A00	17,8	590x855x360
6	1SL0216A00	1SL0206A00	21,1	840x1005x360

#### Section II – Global product table

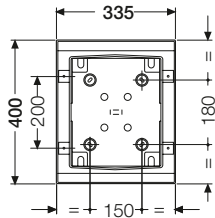
General code: CER 17 02 03 plastic (more than 95% of the product's weight)

Part (P1, P2 ecc.)/ Component number	Diagram	Quantity % over total weight	Material description	Symbol	Dangerousness (Yes/No)	CER code	
P1/BOX		~ 80%	Polypropylene	 >PP<	No	17 02 03	
P2/ROOF			Polycarbonate	 >PC<	No	17 02 03	
P3/DOOR			~ 20%	Steel	 >PC<	No	17 04 05
P4/ACCESSORIES			< 5%	Brass	-	No	17 04 01
P5/ACCESSORIES			< 5%	Polypropylene	-	No	17 02 03

# General purpose enclosures technical details

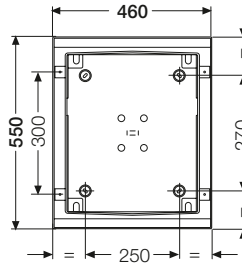
## Overall dimensions – Basic configuration

### Front view



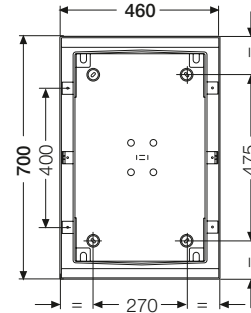
**Size 1**

1SL0201A00 - 1SL0211A00 - 1SL0221A00



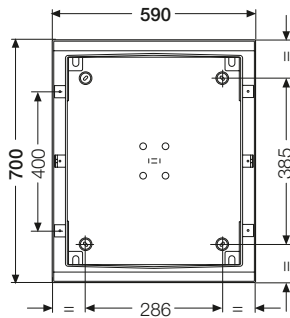
**Size 2**

1SL0202A00 - 1SL0212A00 - 1SL0222A00



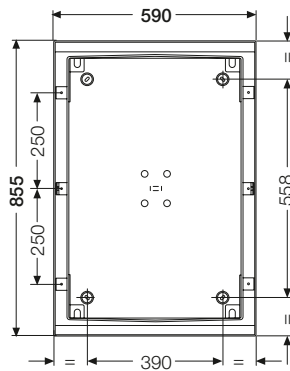
**Size 3**

1SL0203A00 - 1SL0213A00 - 1SL0223A00



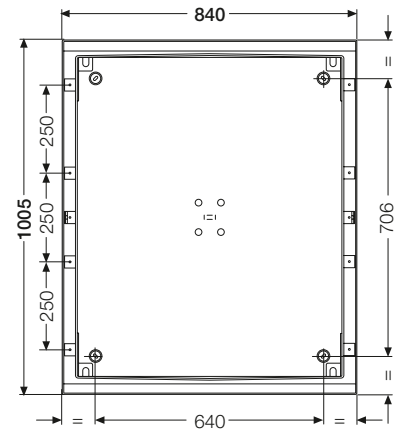
**Size 4**

1SL0204A00 - 1SL0214A00 - 1SL0224A00



**Size 5**

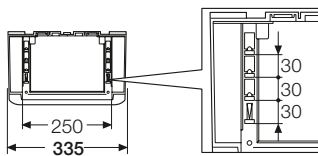
1SL0205A00 - 1SL0215A00 - 1SL0225A00



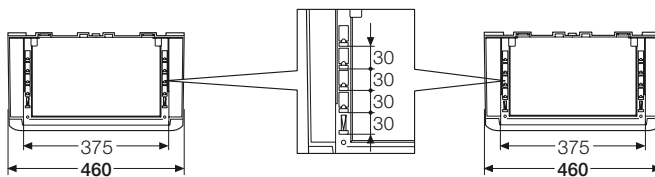
**Size 6**

1SL0206A00 - 1SL0216A00 - 1SL0226A00

### Top view

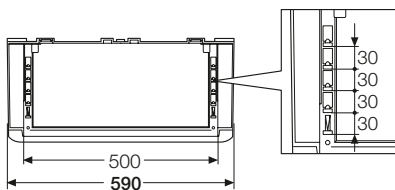


**Size 1**

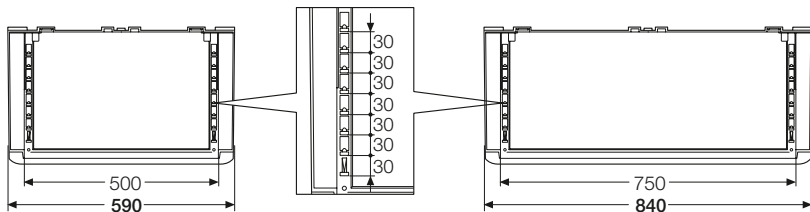


**Size 2**

**Size 3**



**Size 4**



**Size 5**

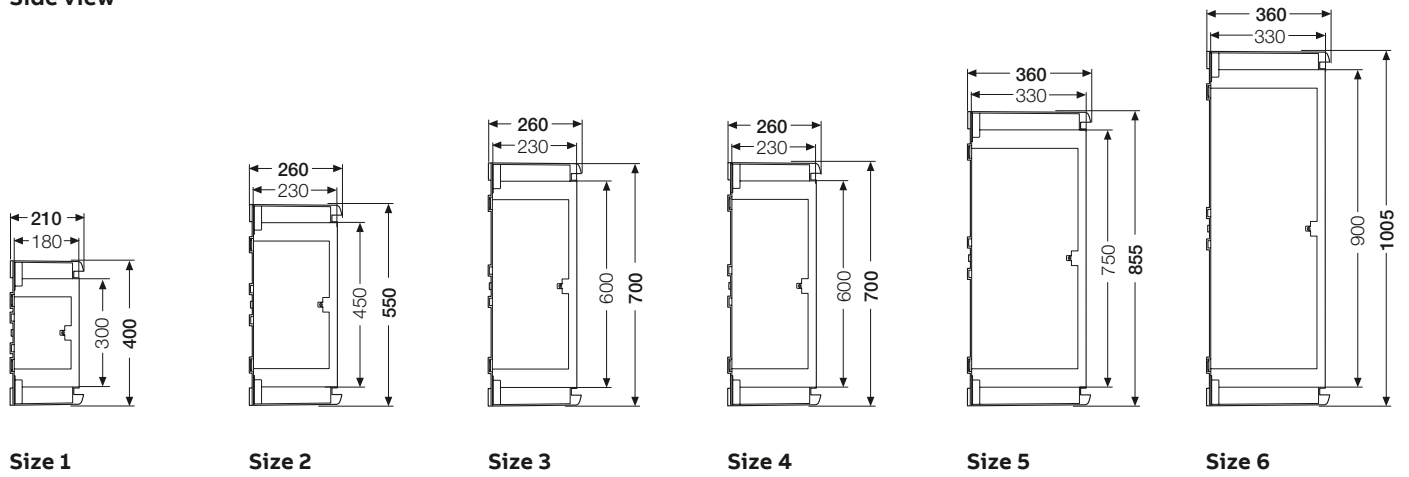
**Size 6**

Measurements are expressed in millimeters.

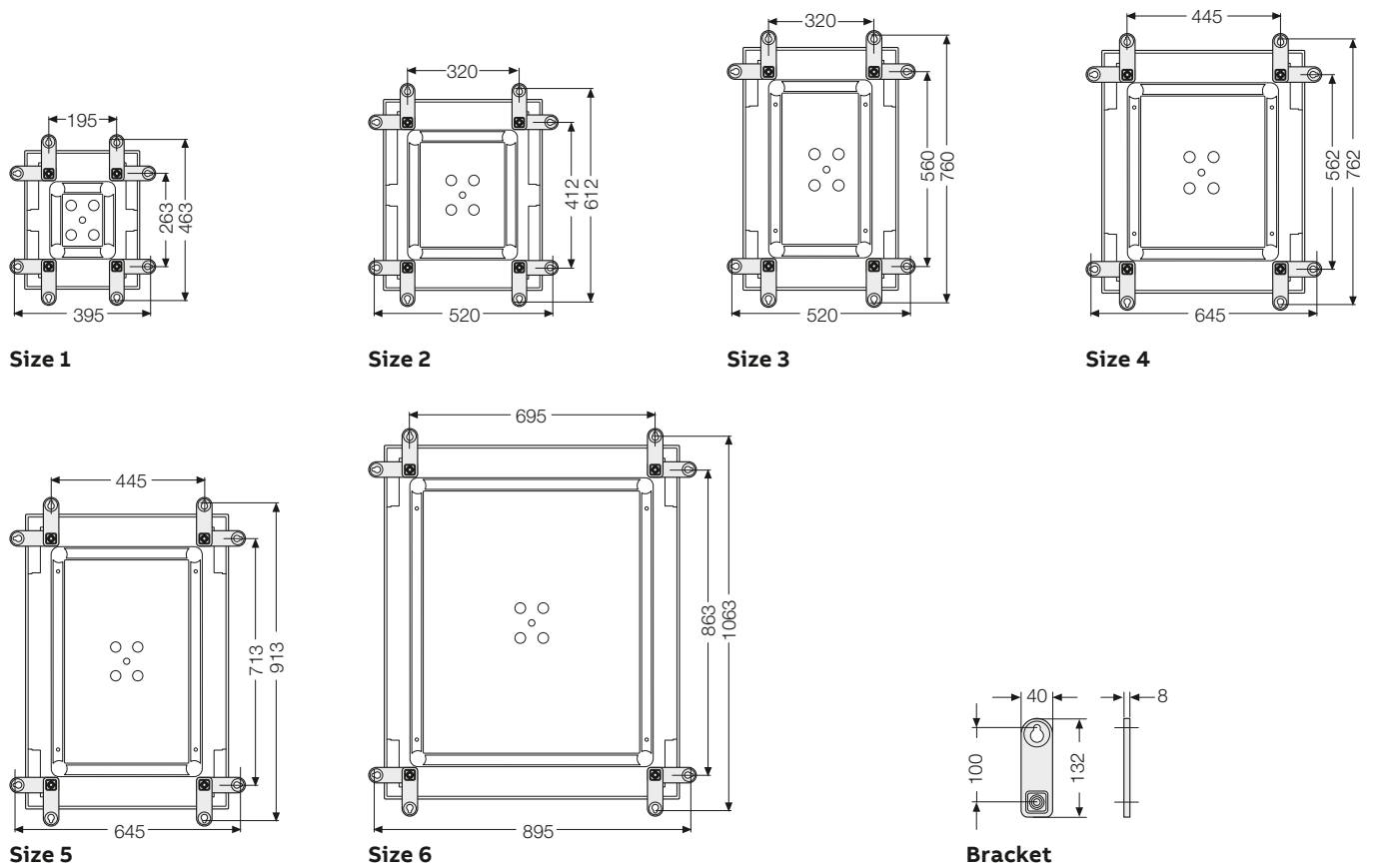
## General purpose enclosures technical details

### Overall dimensions – Basic configuration

#### Side view



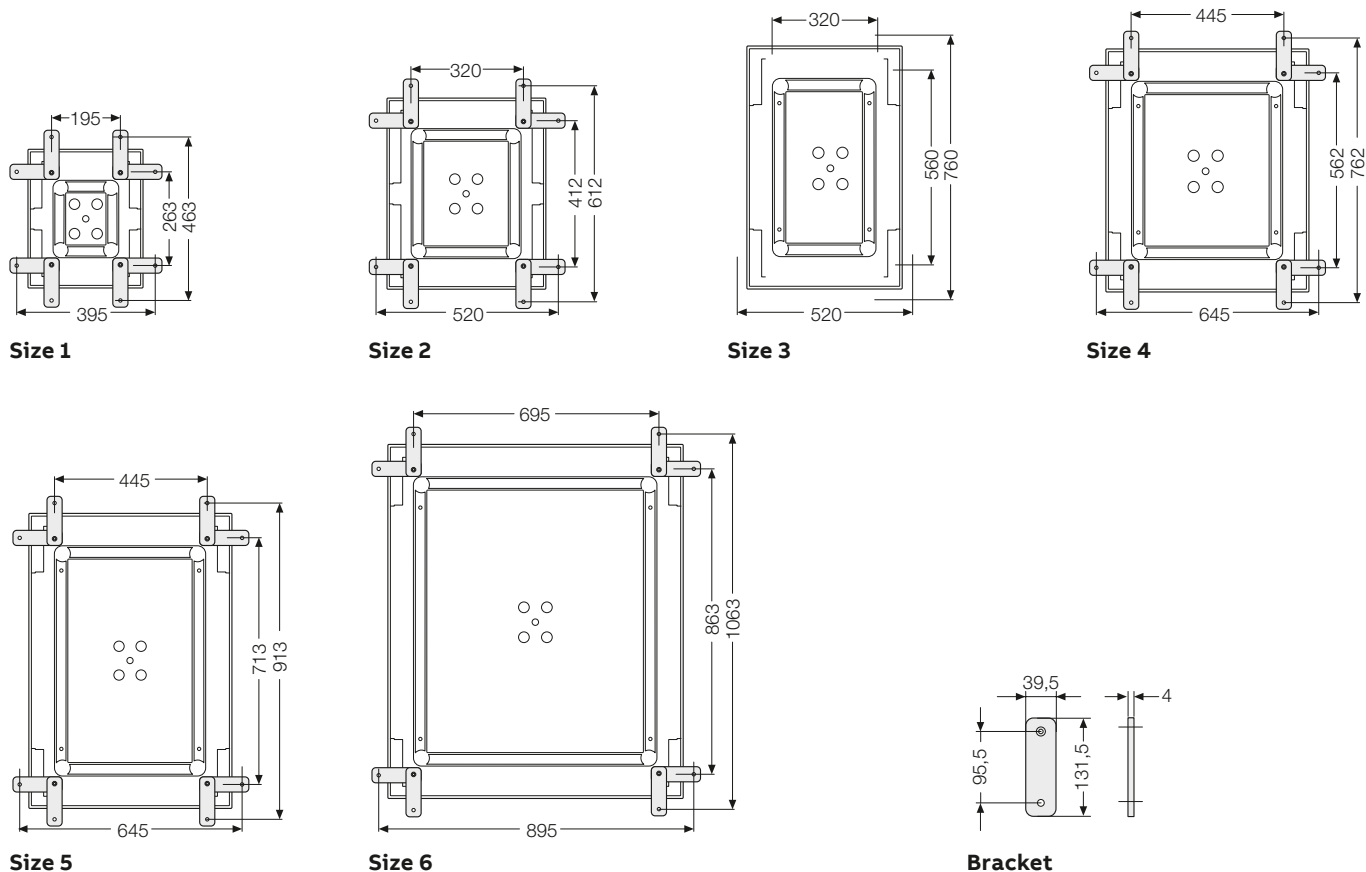
#### Installation with plastic brackets



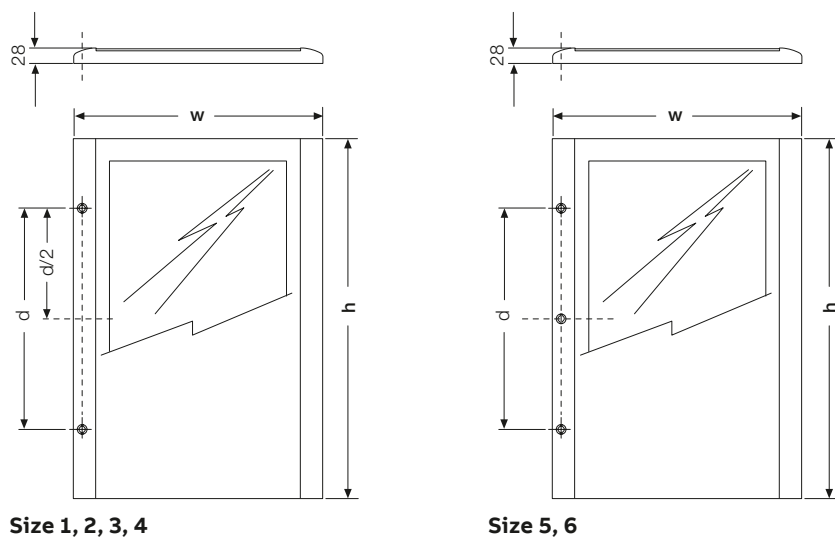
## General purpose enclosures technical details

### Overall dimensions – Basic configuration

#### Installation with stainless steel brackets



#### External opaque and transparent doors



Size	w	h	Locks	d = lock distance
1	325	349	2	200
2	450	499	2	300
3	450	649	2	400
4	575	649	2	400
5	575	799	3	500
6	825	949	3	750

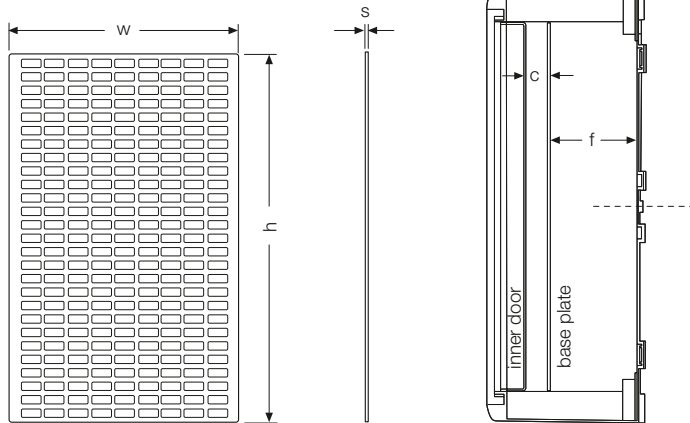
Measurements are expressed in millimeters.

## General purpose enclosures technical details

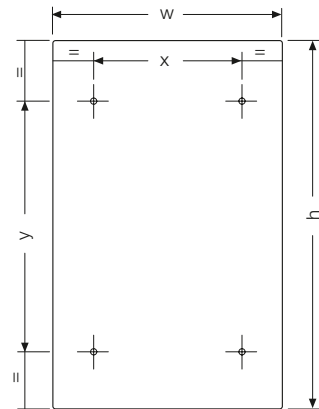
Overall dimensions – Components for automation applications

### Base plate

#### Metal, drilled



#### Metal, blank and insulating



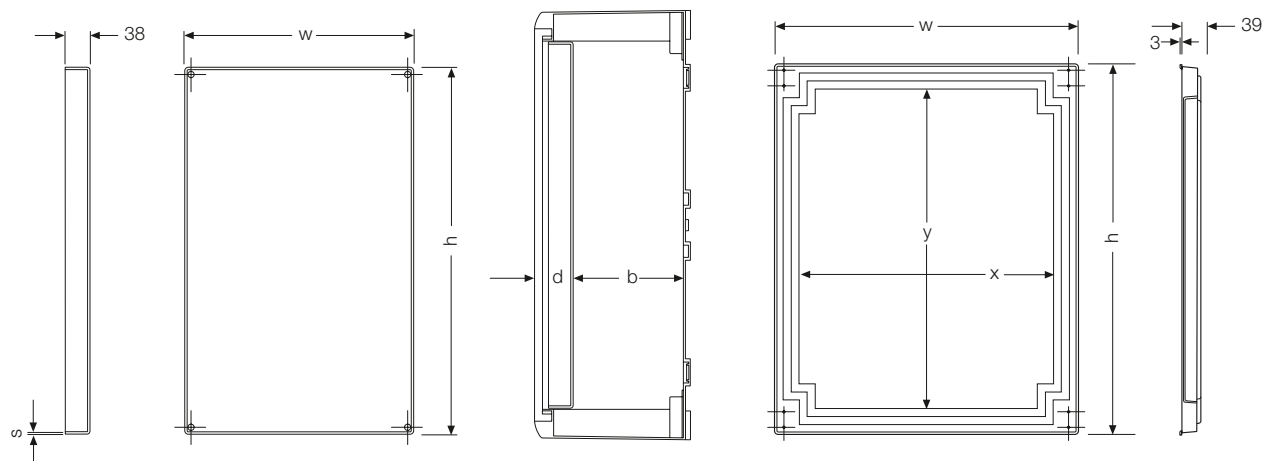
Size	w	h	Metal, blank and drilled		Insulating		f = base distance		c = distance inner door		Distance of the plate from the inner door
			s	s	MIN.	MAX.	MIN.	MAX.			
1	235	285	2	5	16,3	91	33,5	110	-		
2	360	435	2	5	36,4	140	33,5	139	152,4		
3	360	585	2	5	36,4	140	33,5	139	152,4		
4	485	585	2	5	36,4	140	33,5	139	152,4		
5	485	735	2	5	47	244	33,5	228	252,0		
6	735	885	2	5	47	244	33,5	228	252,0		

#### Drilling for base mounting with code 1SL0383A00

Size	x	y
1	-	-
2	337	248
3	337	398
4	462	398
5	462	548
6	711	698

The distance of the plate from the base and inner door depends on the installation point selected for mounting the plate on the box.

### Inner doors



Size	w	h	s	Inner door distance		x	y
				d = door	b = base		
1	250	300	3	63	128	245	295
2	375	450	4	63	177	365	435
3	375	600	4	63	177	215	435
4	500	600	4	63	177	340	440
5	500	750	4	63	277	340	590
6	750	900	4	63	277	585	735

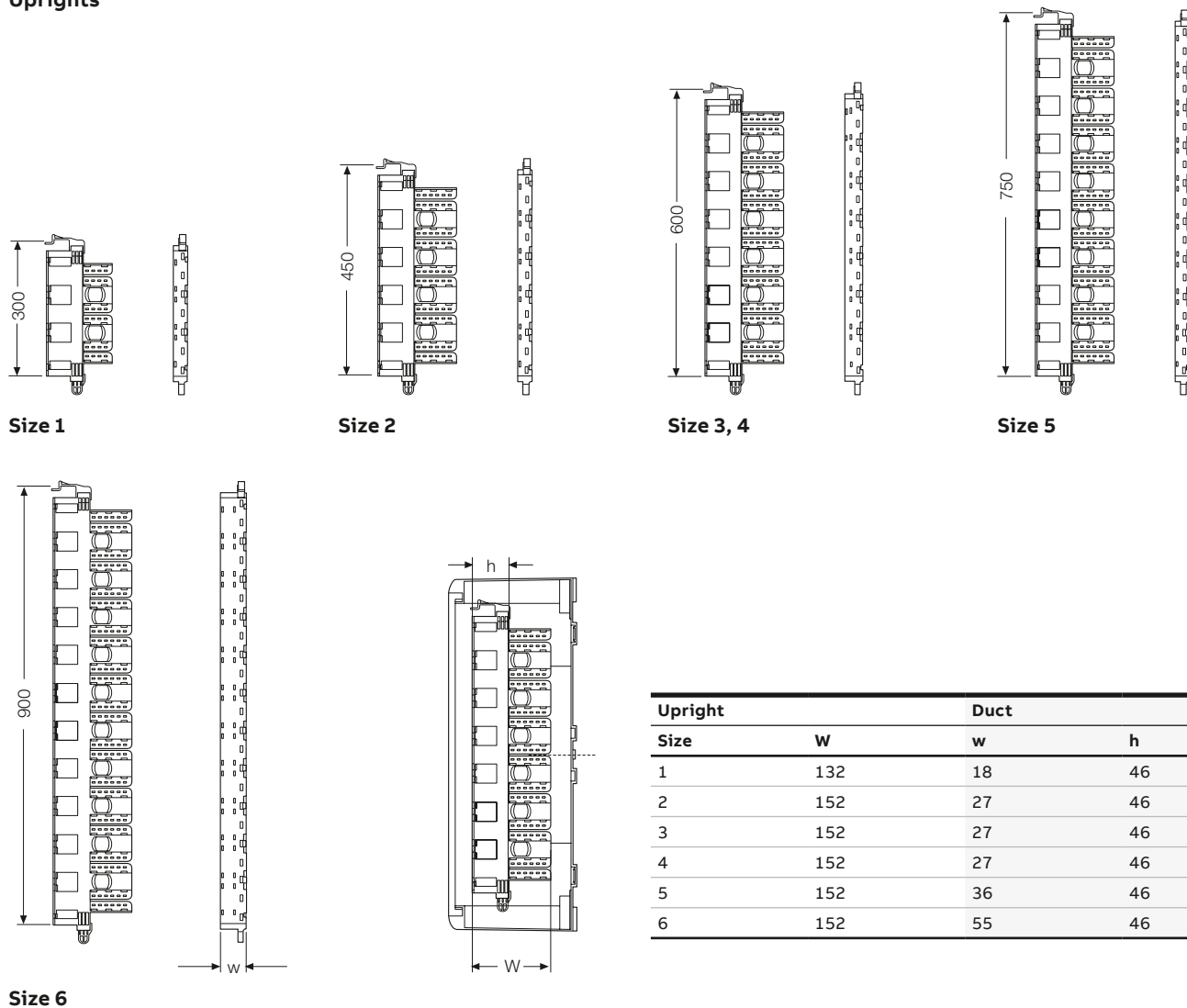
Measurements are expressed in millimeters.



## General purpose enclosures technical details

Overall dimensions – Components for distribution and mixed applications

### Uprights



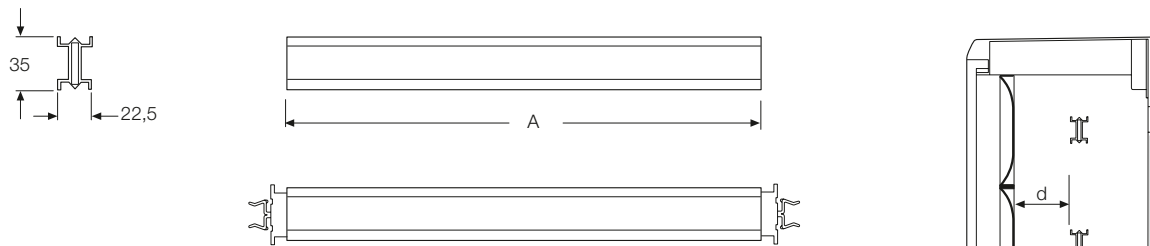
Upright Size	Duct		
	W	w	h
1	132	18	46
2	152	27	46
3	152	27	46
4	152	27	46
5	152	36	46
6	152	55	46

Measurements are expressed in millimeters.

## General purpose enclosures technical details

Overall dimensions – Components for distribution and mixed applications

### DIN rails

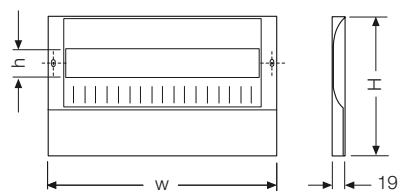


Size	A	d = distance between panel with holes/DIN rail					
		pos. 1	pos. 2	pos. 3	pos. 4	pos. 5	pos. 6
1	210	51	63,5	76	88,5	-	-
2	318	51	63,5	76	88,5	101	113,5
3	318	51	63,5	76	88,5	101	113,5
4	443	51	63,5	76	88,5	101	113,5
5	443	51	63,5	76	88,5	101	113,5
6	663	51	63,5	76	88,5	101	113,5

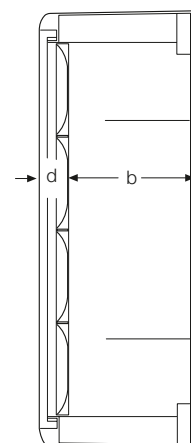
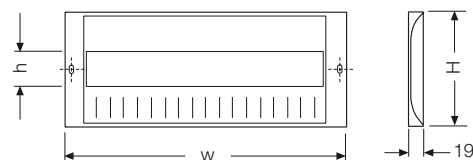
The distances of the DIN rail from the Panel depend on depth adjustment made through rail mountings.

### Drilled panels

#### 1 + 1/2 module



#### 1 module



Drilled panel Size	1 mod.		1+1/2 mod.		Window h	module	Panel distance	
	w	H	w	H			d = door	b = base
1	250	150	-	-	46	12	44	145
2	375	150	375	225	46	18	44	197
3	375	150	375	225	46	18	44	197
4	500	150	500	225	46	24	44	197
5	500	150	500	225	46	24	44	297
6	750	150	750	225	46	36	44	297

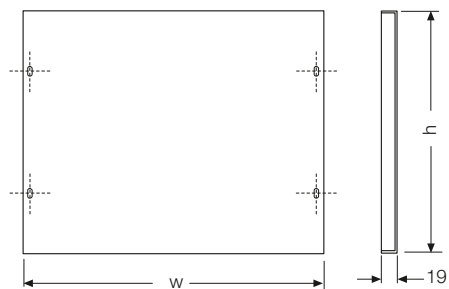
Measurements are expressed in millimeters.

## General purpose enclosures technical details

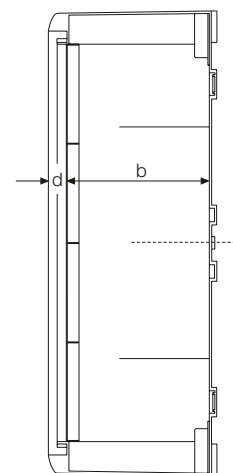
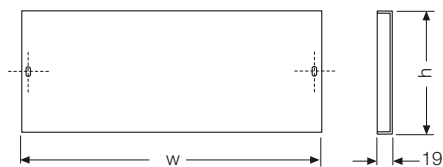
Overall dimensions – Components for distribution and mixed applications

### Blank panels

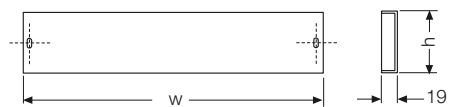
#### Blank panel 2 modules



#### Blank panel 1 module



#### Blank panel 1/2 module



Size	1/2 mod.		1 mod.		2 mod.		Panel distance	
	w	h	w	h	w	h	d = door	b = base
1	250	75	250	150	250	300	26,5	162
2	375	75	375	150	375	300	26,5	214
3	375	75	375	150	375	300	26,5	214
4	500	75	500	150	500	300	26,5	214
5	500	75	500	150	500	300	26,5	314
6	750	75	750	150	750	300	26,5	314

Measurements are expressed in millimeters.

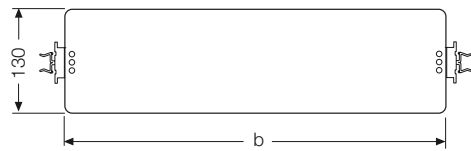
## General purpose enclosures technical details

Overall dimensions – Components for distribution and mixed applications

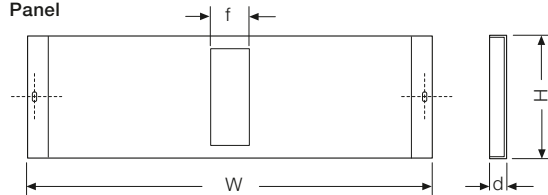
### Kit for Tmax

#### Kit H 150

Plate

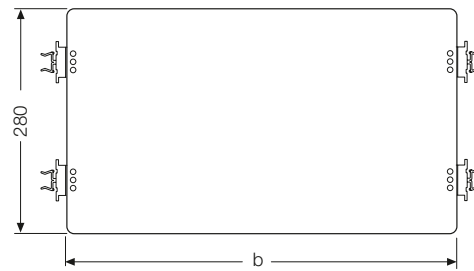


Panel

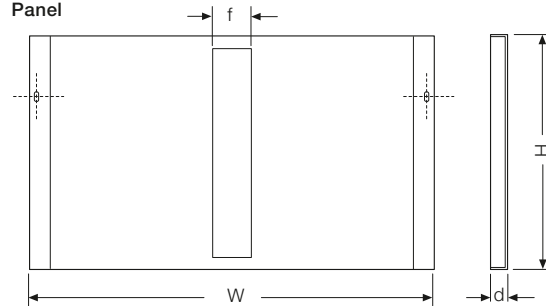


#### Kit H 300

Plate



Panel



kit for Tmax H 150 (available for sizes 2-6)

Size	W	H	d	f	b
2	375	150	19	46	318
3	375	150	19	46	318
4	500	150	19	46	443
5	500	150	19	46	443
6	750	150	19	46	663

kit for Tmax H 300 (available for sizes 2-6)

Size	W	H	d	f	b
2	375	300	19	46	318
3	375	300	19	46	318
4	500	300	19	46	443
5	500	300	19	46	443
6	750	300	19	46	663

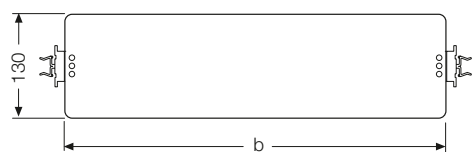
## General purpose enclosures technical details

Overall dimensions – Components for distribution and mixed applications

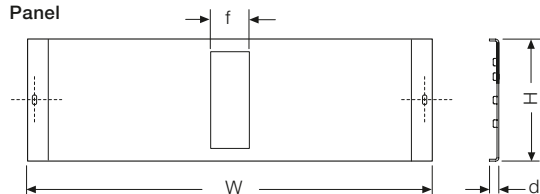
### Kit for Tmax XT

#### Kit H 150

Plate



Panel

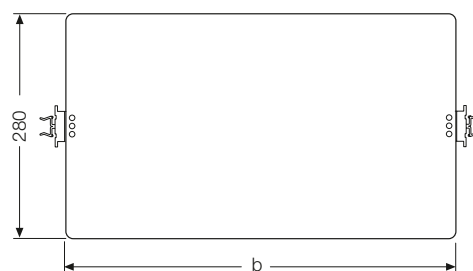


kit for Tmax XT H 150 (available for sizes 2-6)

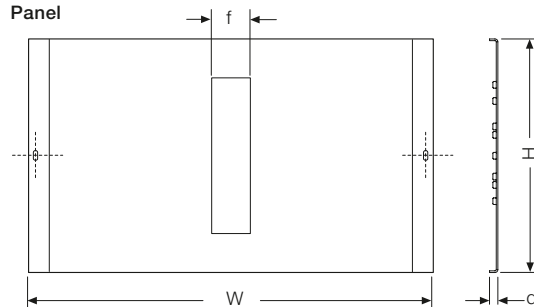
Size	W	H	d	f	b
2	375	150	10	46	318
3	375	150	10	46	318
4	500	150	10	46	443
5	500	150	10	46	443
6	750	150	10	46	663

#### Kit H 300

Plate



Panel



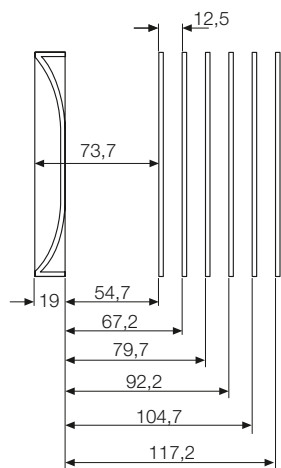
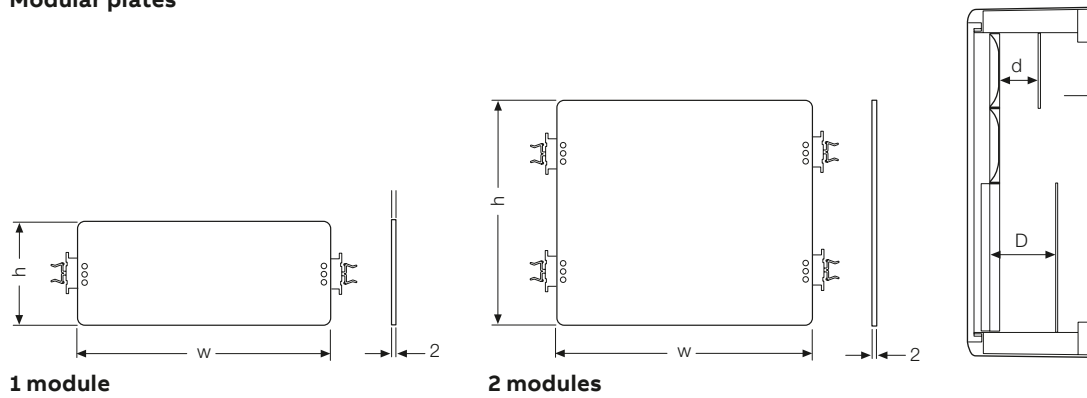
kit for Tmax XT H 300 (available for sizes 2-6)

Size	W	H	d	f	b
2	375	300	10	46	318
3	375	300	10	46	318
4	500	300	10	46	443
5	500	300	10	46	443
6	750	300	10	46	663

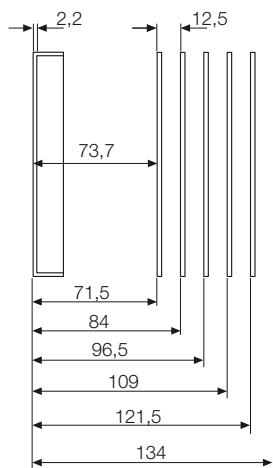
## General purpose enclosures technical details

Overall dimensions – Components for distribution and mixed applications

### Modular plates



Drilled panel



Blank panel

Size	1 module		2 modules	
	w	h	w	h
1	210	130	-	-
2	318	130	318	280
3	318	130	318	280
4	443	130	443	280
5	443	130	443	280
6	663	130	663	280

D = distance blank panel/plate						
pos. 1	pos. 2	pos. 3	pos. 4	pos. 5	pos. 6	
71,5	84	96,5	109	-	-	
71,5	84	96,5	109	121,5	134	
71,5	84	96,5	109	121,5	134	
71,5	84	96,5	109	121,5	134	
71,5	84	96,5	109	121,5	134	
71,5	84	96,5	109	121,5	134	

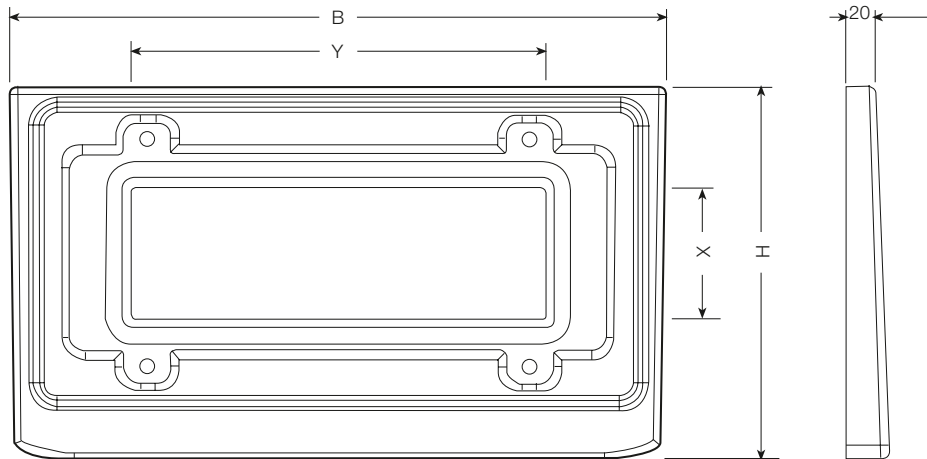
d = distance drilled panel/plate						
pos. 1	pos. 2	pos. 3	pos. 4	pos. 5	pos. 6	
54,7	67,2	79,7	92,2	-	-	
54,7	67,2	79,7	92,2	104,7	117,2	
54,7	67,2	79,7	92,2	104,7	117,2	
54,7	67,2	79,7	92,2	104,7	117,2	
54,7	67,2	79,7	92,2	104,7	117,2	
54,7	67,2	79,7	92,2	104,7	117,2	

The distance of the panels from the modular plates depends on the depth at which the DIN rail is regulated by using fixing devices.

## General purpose enclosures technical details

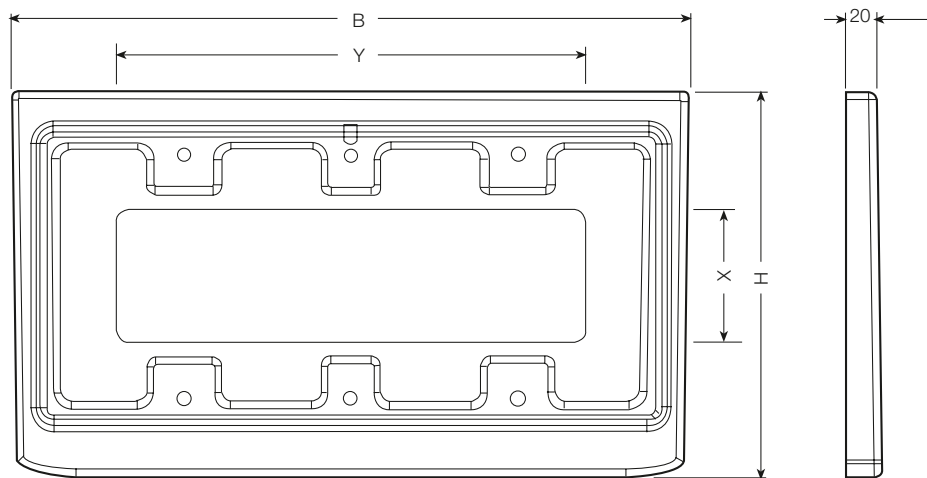
Overall dimensions – Components for distribution and mixed applications

### Coupling kit



Size	B	H	X	Y
1	-	-	-	-
2	455	258	90	286
3	455	258	90	286
4	583	260	90	412
5	583	360	190	412
6	834	360	190	662

### Bottom base H 30

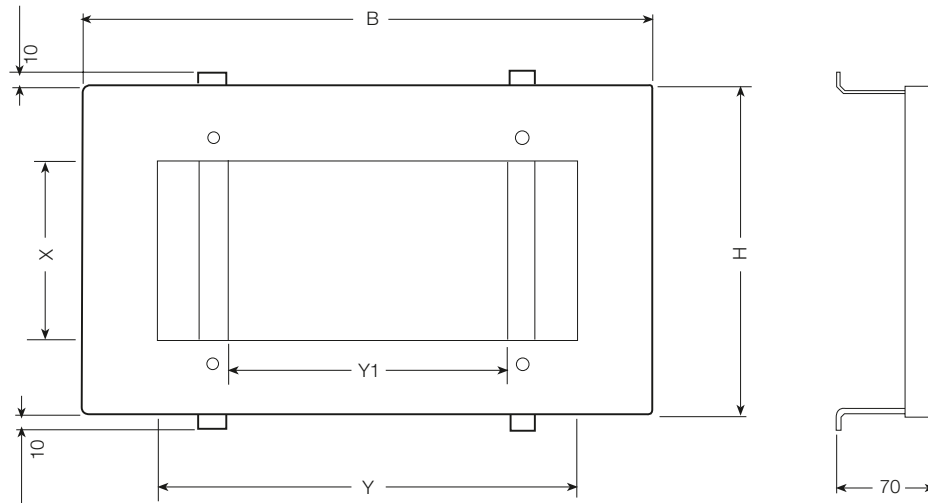


Size	B	H	X	Y
1	-	-	-	-
2	458	260	91	316
3	458	260	91	316
4	583	260	91	440
5	590	366	164	400
6	840	366	164	640

## General purpose enclosures technical details

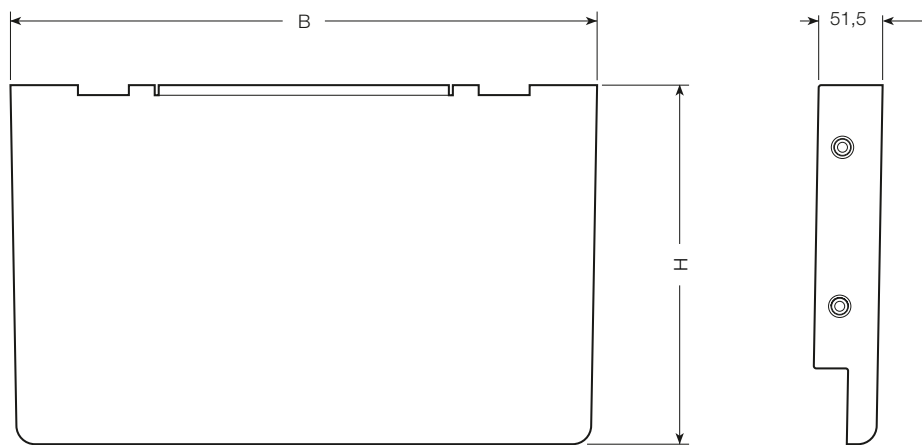
Overall dimensions – Components for distribution and mixed applications

### Fixed frame



Size	B	H	X	Y	Y1
1	-	-	-	-	-
2	415	240	130	305	205
3	415	240	130	305	205
4	540	240	130	430	330
5	584	330	210	480	280
6	834	330	210	730	530

### Integral cover



Size	B	H
1	347	238
2	472	289
3	472	289
4	600	289
5	604	390
6	854	390



## General purpose enclosures technical details

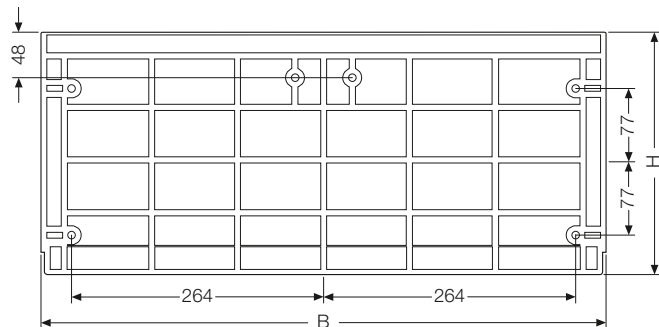
Overall dimensions – Components for distribution and mixed applications

### Pedestal

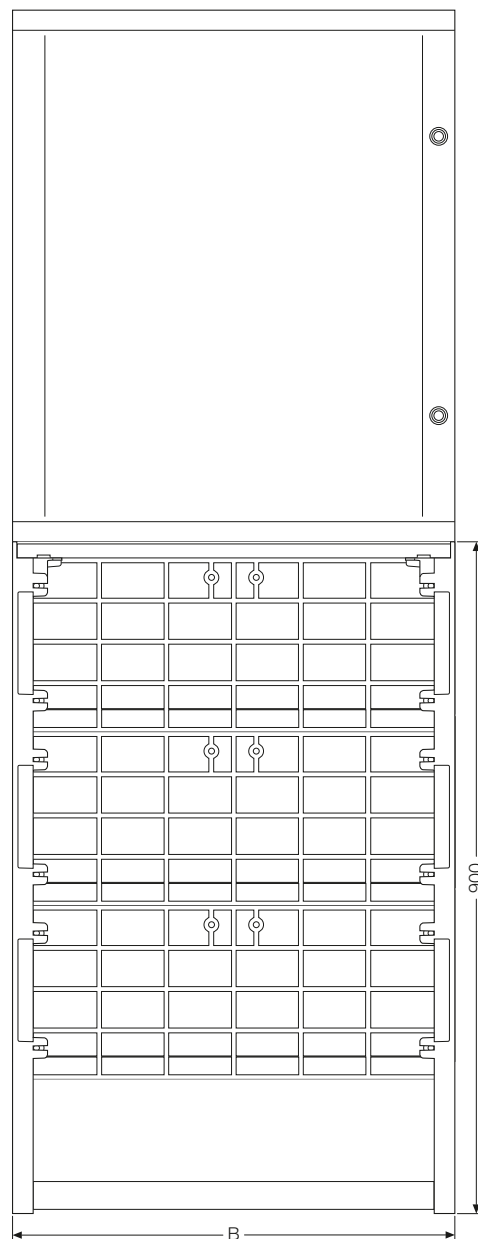
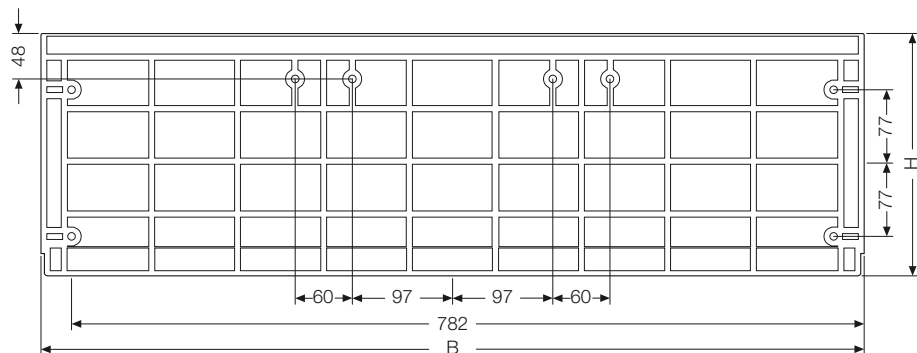
#### Front view



#### Size 4, 5



#### Size 6



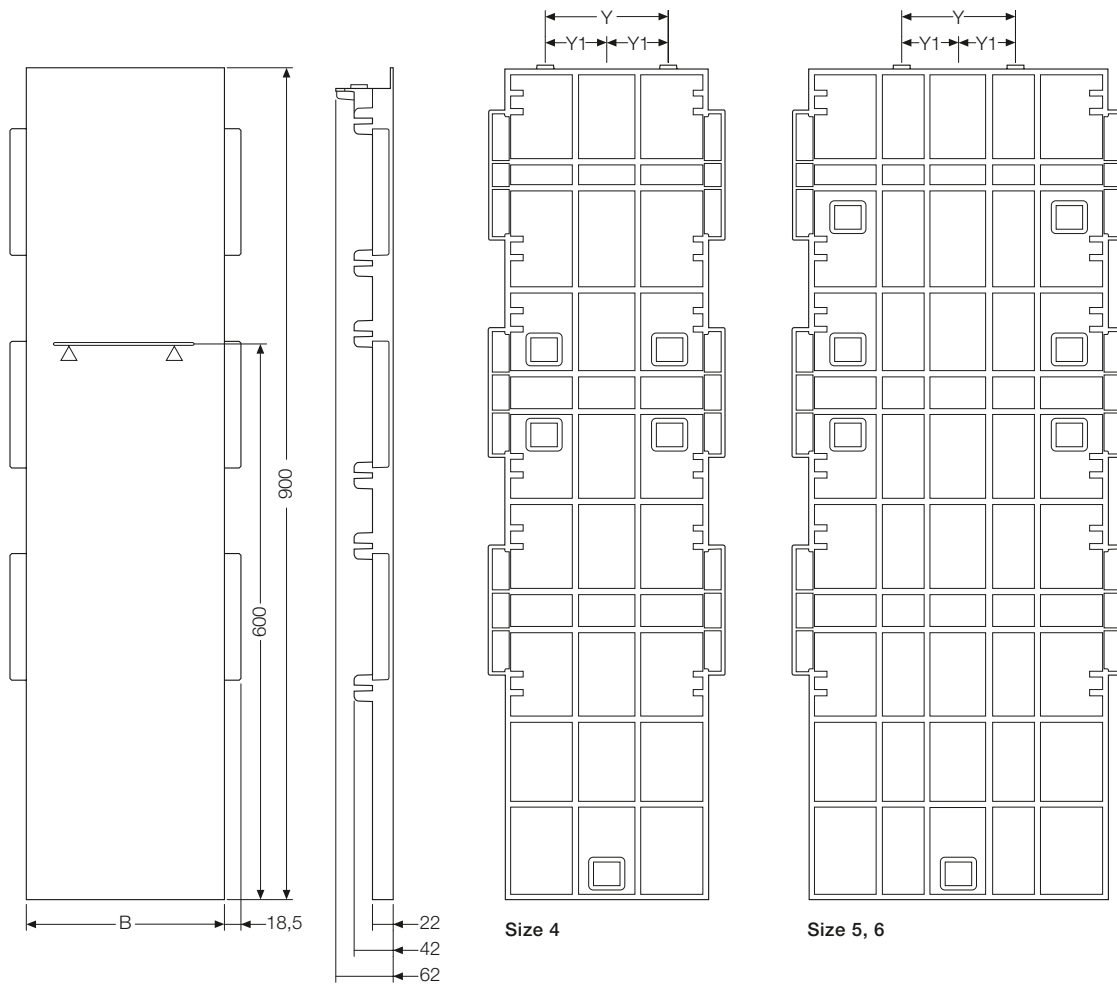
Size	B	H	s
4	592	254	28
5	592	254	28
6	846	254	28

Measurements are expressed in millimeters.

## General purpose enclosures technical details

Overall dimensions – Components for distribution and mixed applications

### Side view

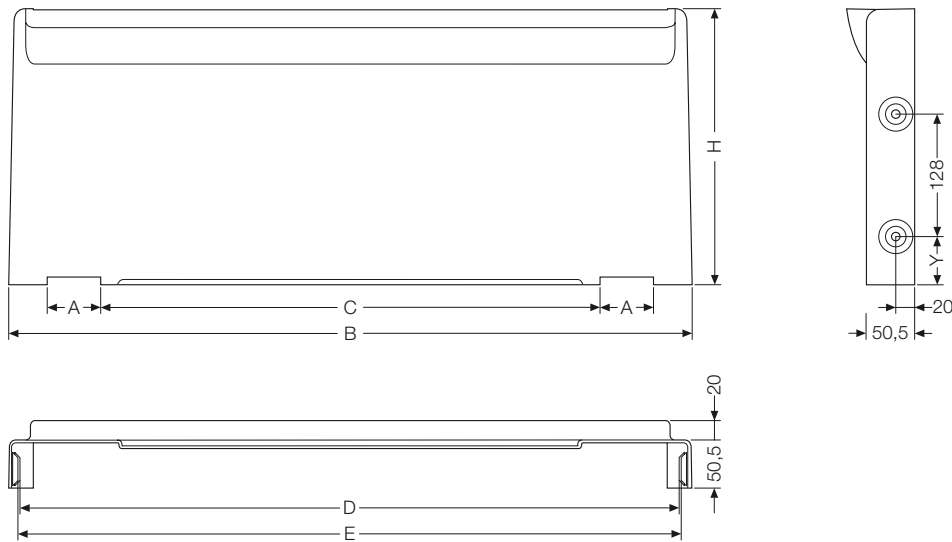


Size	B	Y	Y1
4	213	130	65
5	313	120	60
6	313	120	60

## General purpose enclosures technical details

Overall dimensions – Components for distribution and mixed applications

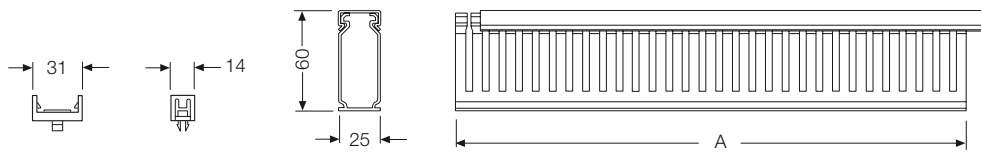
### Horizontal Gemini kit



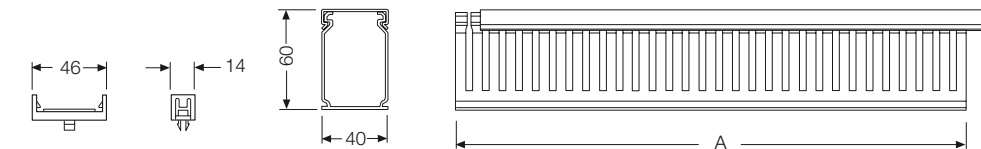
Size	A	B	C	H	Y	D	E
3	56	715,6	523	288	51	692	696
4	56	715,6	523	288	51	692	696
5	60	870	660	388	151	844	848
6	60	1021	810	388	153	994	998

### Wiring kit

Duct 25x60 mm



Duct 40x60 mm



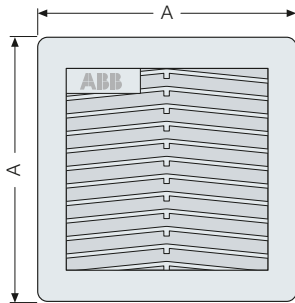
Size	A
1	210
2	318
3	318
4	443
5	443
6	663

Measurements are expressed in millimeters.

## General purpose enclosures technical details

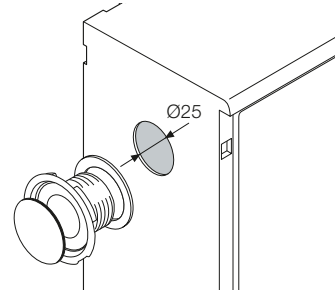
Overall dimensions – Components for distribution and mixed applications

### Ventilation kit

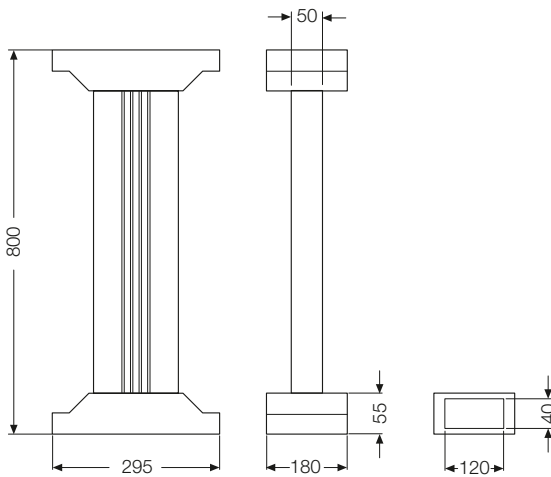


Code	A
EN0105K	105
EN0150K	150
EN0204K	204

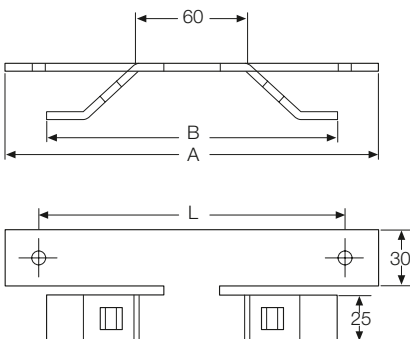
### Anti-condensation kit



### Floor pedestals



### Pole installation kit



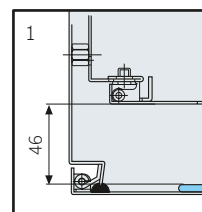
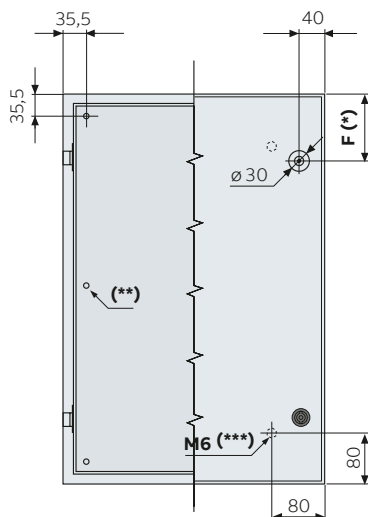
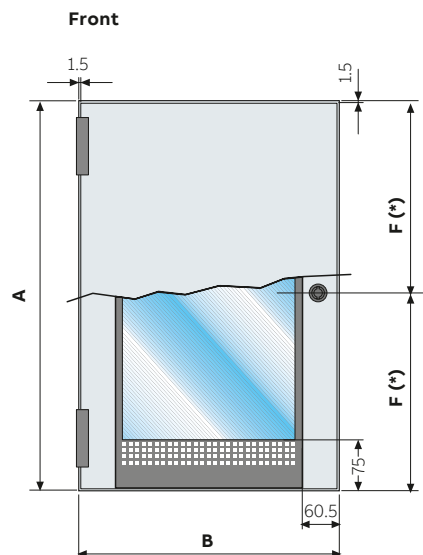
Size	A	B	L
1	232	206	196
2	358	332	320
3	358	332	320
4	483	457	447
5	483	457	447
6	733	707	697

Note: minimum pole section = 150 mm

# General purpose enclosures technical details

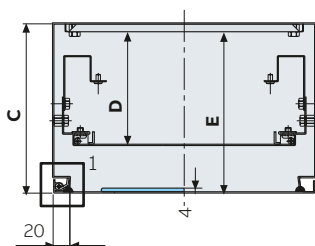
## Overall dimensions – Casse SR2

### Basic version

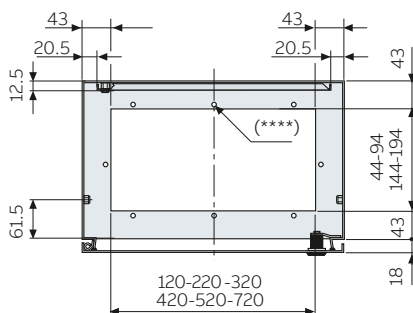


(\*) Locks (F)  
 n°1 central for enclosures from h = 303 to 503 mm  
 n°2 for enclosures from h = 603 to 703 mm (F = 100 mm)  
 n°2 for enclosures from h = 803 to 1 203 mm (F = 150 mm)

### Modular panels and inner door



### Fairlead flange



(\*\*) Copper plated nut on the rear only for enclosures from h = 1 003 to 1 203 mm

(\*\*\*) Copper plated nut on door  
 n° 1 for enclosures from h = 303 to 503 mm  
 n° 4 for enclosures from h = 603 to 803 mm  
 n° 6 for enclosures from h = 1 003 to 1 203 mm

(\*\*\*\*) Flange fixing holes  
 n° 4 for enclosures from l = 203mm  
 n° 6 for enclosures from l = 303 to 403 mm  
 n° 8 for enclosures from l = 503 to 1 203 mm

Code	A	B	C	D	E	F (*)	G	H	I	L
SRN3215K	303	203	147	82	133,5	151,5	163	337	237	263
SRN3315K	303	303	147	82	133,5	151,5	263	337	337	263
SRN3415K	303	403	147	82	133,5	151,5	363	337	437	263
SRN4315K	403	303	147	82	133,5	201,5	263	437	337	363
SRN4320K	403	303	197	132	183,5	201,5	263	437	337	363
SRN4420K	403	403	197	132	183,5	201,5	363	437	437	363
SRN4620K	403	603	197	132	183,5	201,5	563	437	637	363
SRN5320K	503	303	197	132	183,5	251,5	263	537	337	463
SRN5420K	503	403	197	132	183,5	251,5	363	537	437	463
SRN5425K	503	403	247	182	233,5	251,5	363	537	437	463
SRN6420K	603	403	197	132	183,5	100	363	637	437	563
SRN6425K	603	403	247	182	233,5	100	363	637	437	563
SRN6625K	603	603	247	182	233,5	100	563	637	637	563
SRN7520K	703	503	197	132	183,5	100	463	737	537	663
SRN7525K	703	503	247	182	233,5	100	463	737	537	663
SRN8625K	803	603	247	182	233,5	150	563	837	637	763
SRN8630K	803	603	297	232	283,5	150	563	837	637	763
SRN8830K	803	803	297	232	283,5	150	763	837	837	763

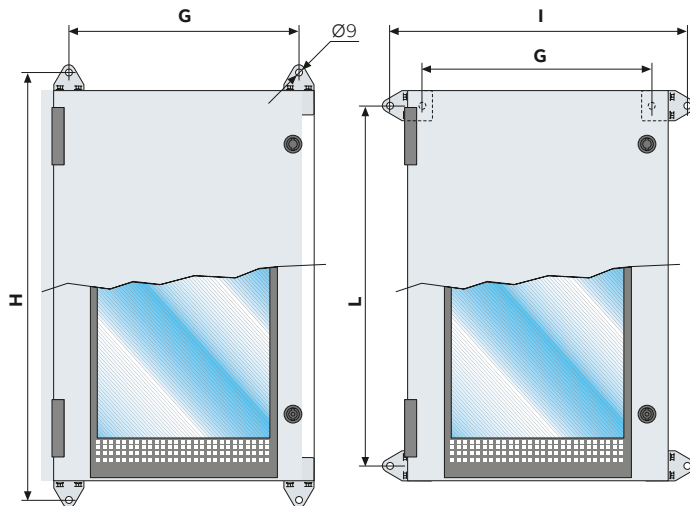
Code	A	B	C	D	E	F (*)	G	H	I	L
SRN10625K	1003	603	247	182	233,5	150	563	1037	637	963
SRN10630K	1003	603	297	232	283,5	150	563	1037	637	963
SRN10830K	1003	803	297	232	283,5	150	763	1037	837	963
SRN12630K	1203	603	297	232	283,5	150	563	1237	637	1163
SRN12830K	1203	803	297	232	283,5	150	763	1237	837	1163
SRN5420VK	503	403	197	132	183,5	150	363	537	437	463
SRN5425VK	503	403	247	182	233,5	150	363	537	437	463
SRN6420VK	603	403	197	132	183,5	150	363	637	437	563
SRN6425VK	603	403	247	182	233,5	150	363	637	437	563
SRN7520VK	703	503	197	132	183,5	150	463	737	537	663
SRN7525VK	703	503	247	182	233,5	150	463	737	537	663
SRN8625VK	803	603	247	182	233,5	150	563	837	637	763
SRN8630VK	803	603	297	232	283,5	150	563	837	637	763
SRN10625VK	1003	603	247	182	233,5	150	563	1037	637	963
SRN10630VK	1003	603	297	232	283,5	150	563	1037	637	963
SRN10830VK	1003	803	297	232	283,5	150	763	1037	837	963
SRN12630VK	1203	603	297	232	283,5	150	563	1237	637	1163
SRN12830VK	1203	803	297	232	283,5	150	763	1237	837	1163

Measurements are expressed in millimeters.

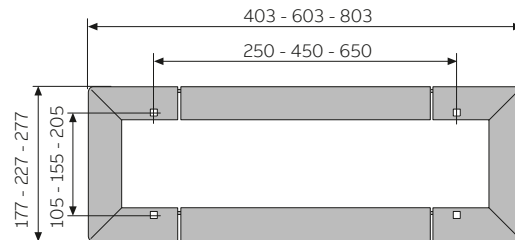
## General purpose enclosures technical details

### Overall dimensions – Casse SR2

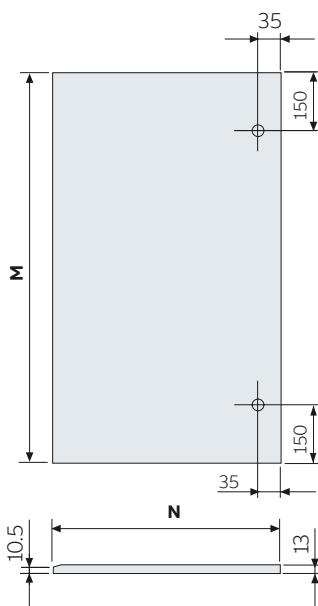
#### Centre distances for wall fixing



#### Centre distances for plinth fixing



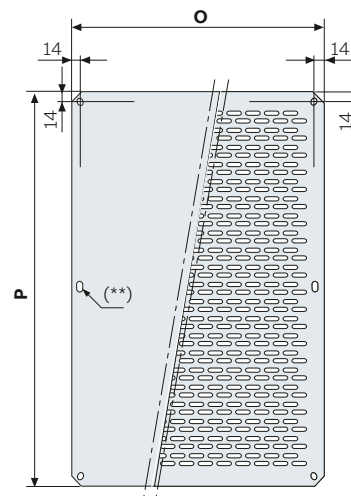
#### Internal counterdoors



Code	M	N
KC5040K *	456	360
KC6040K *	556	360
KC7050K *	656	460
KC8060K	756	560
KC1060K	956	560
KC1080K	956	760
KC1260K	1156	560
KC1280K	1156	760

\* The counterdoors with H 500 mm, 600 mm and 700 mm, only have one hole in the centre for the lock

#### Internal plates



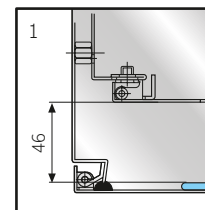
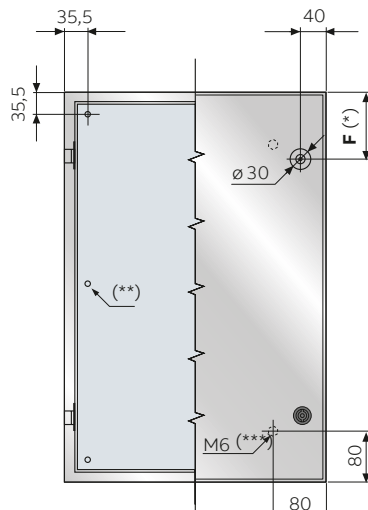
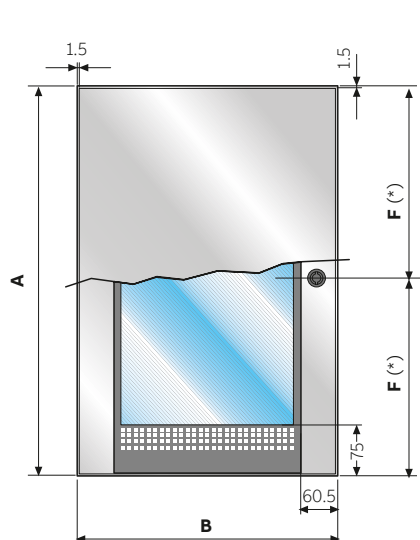
Code	O	P
PF3020	160	260
PF3030	260	260
PF3040 - PF4030	360	260
PF4040	360	360
PF5030	260	460
PF5040	360	460
PF6040 - PF4060	360	560
PF6060	560	560
PF7050	460	660
PF8060	560	760
PF8080	760	760
PF1060	560	960
PF1080	760	960
PF1260	560	1160
PF1280	760	1160

Measurements are expressed in millimeters.

## General purpose enclosures technical details

### Overall dimensions – SRX enclosures

#### Basic version

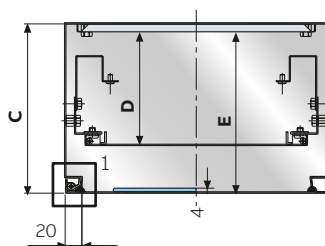


- (\*) Locks (F)  
 1 central for enclosures from  
 h=303 to 503 mm  
 2 for enclosures from  
 h=603 to 703 mm (F=100mm)  
 2 for enclosures  
 from h=803 to 1203 mm (F=150mm)

- (\*\*) Copper plated nut on the rear  
 only for enclosures from h=1003 to 1203 mm

- (\*\*\*) Copper plated nut on door  
 1 for enclosures from h=303 to 503 mm  
 4 for enclosures from h=603 to 803 mm  
 6 for enclosures from h=1003 to 1203 mm

#### Modular panels and inner door



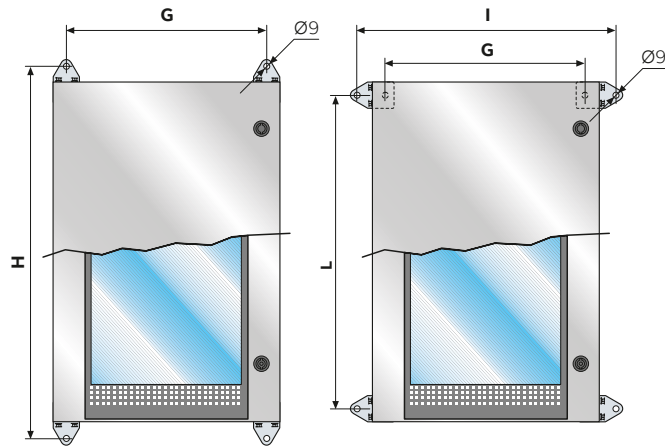
Code	A	B	C	D	E	F (*)	G	H	I	L
SRN3215X	303	203	147	82	133,5	151,5	163	337	237	263
SRN3415X	303	403	147	82	133,5	151,5	363	337	437	263
SRN4315X	403	303	147	82	133,5	201,5	263	437	337	363
SRN4320X	403	303	197	132	183,5	201,5	263	437	337	363
SRN4420X	403	403	197	132	183,5	201,5	363	437	437	363
SRN4620X	403	603	197	132	183,5	201,5	563	437	637	363
SRN5420X - SRN5420VX	503	403	197	132	183,5	251,5	363	537	437	463
SRN5520X	503	503	197	132	183,5	251,5	363	537	437	463
SRN6420X - SRN6420VX	603	403	197	132	183,5	100	363	637	437	563
SRN6620X	603	603	197	132	183,5	100	363	637	437	563
SRN6630X	603	603	297	232	283,5	100	363	637	437	563
SRN7525X - SRN7525VX	703	503	247	182	233,5	100	463	737	537	663
SRN8620X	803	603	197	132	183,5	150	363	637	437	563
SRN8625VX	803	603	247	182	233,5	150	563	837	637	763
SRN8630X	803	603	297	232	283,5	150	563	837	637	763
SRN8830X	803	803	297	232	283,5	150	763	837	837	763
SRN10830X - SRN10830VX	1003	803	297	232	283,5	150	763	1037	837	963
SRN12630X	1203	603	297	232	283,5	150	563	1237	637	1163
SRN12830X	1203	803	297	232	283,5	150	763	1237	837	1163

Measurements are expressed in millimeters.

# General purpose enclosures technical details

## Overall dimensions – SRX enclosures

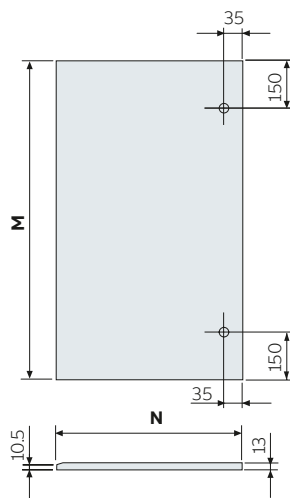
### Centre distances for wall-mounting



### Centre distances for plinth fixing

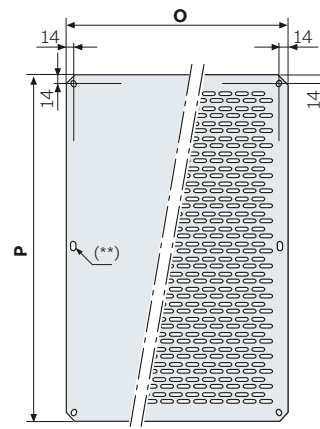


### Inner doors



Code	M	N
KC5040X*	456	360
KC6040X*	556	360
KC7050X*	656	460
KC8060X	756	560
KC1080X	956	760

### Internal plates



Code	O	P
PF3020	160	260
PF3030	260	260
PF3040 - PF4030	360	260
PF4040	360	360
PF5030	260	460
PF5040	360	460
PF5050	460	460
PF6040 - PF4060	360	560
PF6060	560	560
PF7050	460	660
PF8060	560	760
PF8080	760	760
PF1060	560	960
PF1080	760	960
PF1260	560	1160
PF1280	760	1160

\* Inner doors with H 500mm, 600mm, 700mm only have one hole in the centre for the lock



## General purpose enclosures technical details

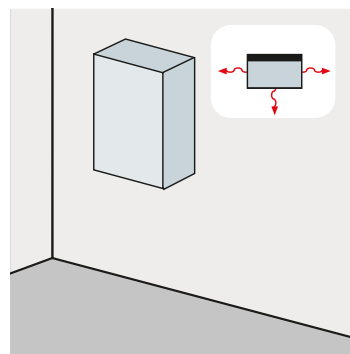
### SR2 enclosures

#### Dissipating power

##### SR enclosures

Dissipating power inside the SR enclosures according to the permissible overtemperature (external temperature plus overtemperature = 60 °C max).

#### Maximum dissipating power (W)



Wall-mounted single enclosure

Code	Dimensions			Overtemperature values $\Delta T$			
	H (mm)	W (mm)	D (mm)	25 °C	30 °C	35 °C	40 °C
SRN3215K	300	200	150	18	22	26	31
SRN3315K	300	300	150	23	29	35	42
SRN3415K	300	400	150	34	42	51	60
SRN4315K	400	300	150	30	37	45	53
SRN4320K	400	300	200	33	42	51	60
SRN4420K	400	400	200	42	52	63	74
SRN4620K	400	600	200	59	74	89	105
SRN5320K	500	300	200	39	49	59	69
SRN5420K	500	400	200	47	59	72	85
SRN5420VK	500	400	200	47	59	72	85
SRN5425K	500	400	250	52	66	79	94
SRN5425VK	500	400	250	52	66	79	94
SRN6420K	600	400	200	54	67	82	96
SRN6420VK	600	400	200	54	67	82	96
SRN6425K	600	400	250	59	74	89	105
SRN6425VK	600	400	250	59	74	89	105
SRN6625K	600	600	250	79	99	120	141
SRN7520K	700	500	200	68	86	104	122
SRN7520VK	700	500	200	68	86	104	122
SRN7525K	700	500	250	74	93	113	133
SRN7525VK	700	500	250	74	93	113	133
SRN8625K	800	600	250	94	118	143	169
SRN8625VK	800	600	250	94	118	143	169
SRN8630K	800	600	300	107	134	162	191
SRN8630VK	800	600	300	107	134	162	191
SRN8830K	800	800	300	114	142	173	204
SRN10625K	1000	600	250	95	118	143	169
SRN10625VK	1000	600	250	95	118	143	169
SRN10630K	1000	600	300	103	130	156	185
SRN10630VK	1000	600	300	103	130	156	185
SRN10830K	1000	800	300	142	178	215	254
SRN10830VK	1000	800	300	142	178	215	254
SRN12630K	1200	600	300	123	155	187	220
SRN12630VK	1200	600	300	123	155	187	220
SRN12830K	1200	800	300	168	210	255	300
SRN12830VK	1200	800	300	168	210	255	300

Values also valid for the versions with glazed door.

## General purpose enclosures technical details

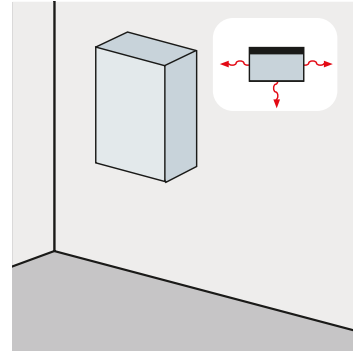
### SRX enclosures

#### Dissipating power

##### SRX enclosures

Dissipating power inside the SRX enclosures according to the permissible overtemperature (external temperature plus overtemperature = 60 °C max).

#### Maximum dissipating power (W)



Wall-mounted single enclosure

Code	Dimensions			Overtemperature values $\Delta T$			
	H (mm)	W (mm)	D (mm)	25 °C	30 °C	35 °C	40 °C
SRN3215X	300	200	150	29	35	42	50
SRN3415X	300	400	150	55	68	82	97
SRN4315X	400	300	150	48	60	72	85
SRN4320X	400	300	200	53	68	82	97
SRN4420X	400	400	200	68	84	101	119
SRN4620X	400	600	200	95	119	143	169
SRN5420X	500	400	200	76	95	116	137
SRN5420VX	500	400	200	76	95	116	137
SRN5520X	500	500	200	-	-	-	-
SRN6420X	600	400	200	87	108	132	154
SRN6420VX	600	400	200	87	108	132	154
SRN6620X	600	600	200	-	-	-	-
SRN6630X	600	600	300	-	-	-	-
SRN7525X	700	500	250	119	150	182	214
SRN7525VX	700	500	250	119	150	182	214
SRN8620X	800	600	200	-	-	-	-
SRN8625VX	800	600	250	151	190	230	272
SRN8630X	800	600	300	172	216	261	307
SRN8830X	800	800	300	183	228	278	328
SRN10830X	1000	800	300	228	286	346	409
SRN10830VX	1000	800	300	228	286	346	409
SRN12630X	1200	600	300	198	249	301	354
SRN12830X	1200	800	300	270	338	410	483