


# Motorised Fire, Smoke & Heat Dampers

## ISONE rectangular embedded - EM: minimum space requirement



**CIVIL DEFENCE APPROVED**

### Advantages

- Fire resistance: 2h.
- No smoke leakage, no heat transfer.
- Quick operation.
- Horizontal or vertical blades.
- Minimum space requirement and opening.
-  VDS version: operation under power emission allowing no energy consumption.

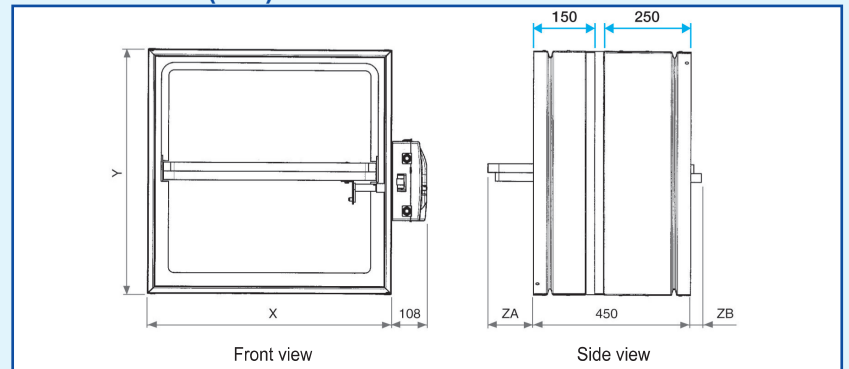
### FIRE PROTECTION RATING - EN 1366-2

- EIS 120-500 Pa in concrete wall 110 mm and cellular concrete wall 150mm,
- EIS 120 - 500 Pa in concrete tile 150 mm and cellular concrete tile 150mm.

### INSTALLATION

- Embedded into a concrete wall.
- Embedded through a concrete tile - no fixings or hangings.
- Traditional grouting with mortar.
- Offset mechanism on the wall or tile.
- Dimensions of openings required: (X + 50) x (Y + 50) mm.

### DIMENSIONS (mm)



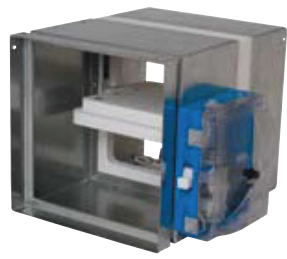
ZA: angular displacement of the blade

Y	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
ZA	0	0	0	0	0	20	45	68	93	116	141	164	195	220	245	270	295	320
ZB	0	0	0	0	0	0	0	0	0	13	41	64	95	120	145	170	195	220

Height Y	Width X																																					
	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500											
200	11043340 EM - PM																			Use a multi-section assembly																		
250																																						
300																																						
350																																						
400	11043341 EM - MM																			11043344 ISONE EM - GM																		
450																																						
500																																						
550																																						
600	11043345 ISONE EM TGM CF 1.5h																			Use a multi-section assembly																		
650																																						
700																																						
750																																						
800																																						
850																																						
900																																						
950																																						
1000																																						
1050																																						

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### WEIGHT (kg) - RANGE with a choice of options

- The thermal fusible link at 70°C is included.

Code	11043340 ISONE-EUROPE-RECT-EM-PM						
Height Y	Width X						
	200	250	300	350	400	450	500
200	10	10	11	12	13	14	15
250	10	11	12	13	14	15	-
300	11	12	13	14	15	-	-
350	12	13	14	15	-	-	-
400	13	14	15	-	-	-	-
450	-	15	-	-	-	-	-

Code	11043341 ISONE-EUROPE-RECT-EM-MM															
Height Y	Width X															
	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
200	-	-	-	-	-	-	16	17	-	-	-	-	-	-	-	-
250	-	-	-	-	-	16	17	18	19	20	21	-	-	-	-	-
300	-	-	-	-	16	17	18	19	20	21	23	24	25	26	-	-
350	-	-	-	17	18	19	20	21	22	23	24	25	26	28	29	30
400	-	-	17	18	19	20	21	22	24	25	26	27	28	30	31	32
450	-	16	18	19	20	21	23	24	25	26	28	29	30	31	33	-
500	16	17	19	20	21	23	24	25	27	28	29	31	32	33	-	-
550	-	18	20	21	23	24	26	27	28	30	31	33	34	-	-	-
600	-	19	21	22	24	25	27	28	30	31	33	34	-	-	-	-
650	-	-	22	24	25	27	28	30	32	33	35	-	-	-	-	-
700	-	-	23	25	26	28	30	31	33	35	-	-	-	-	-	-
750	-	-	-	26	28	29	31	33	35	-	-	-	-	-	-	-

Code	11043344 ISONE-EUROPE-RECT-EM-GM																							
Height Y	Width X																							
	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	
350	-	-	-	-	-	-	-	-	-	-	-	-	-	33	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-	-	-	35	36	37	38	-	-	-	-	-	-	-
450	-	-	-	-	-	-	-	-	-	-	-	-	36	37	38	40	41	42	43	44	-	-	-	-
500	-	-	-	-	-	-	-	-	-	-	-	37	38	39	41	42	43	44	45	46	47	48	49	-
550	-	-	-	-	-	-	-	-	-	-	37	39	40	42	43	44	46	47	47	48	49	50	51	-
600	-	-	-	-	-	-	-	-	-	38	39	41	42	44	45	47	48	50	50	51	52	53	54	-
650	-	-	-	-	-	-	-	-	38	40	41	43	44	46	48	49	50	52	52	53	54	55	-	-
700	-	-	-	-	-	-	38	40	42	43	45	47	48	50	52	53	55	54	55	56	57	-	-	-
750	-	-	-	-	-	38	40	42	43	45	47	49	51	53	55	56	56	56	57	-	-	-	-	-
800	29	31	33	34	36	38	40	42	44	45	47	49	51	53	55	57	58	58	-	-	-	-	-	-
850	-	32	34	36	38	40	42	43	45	47	49	51	53	55	57	59	60	62	-	-	-	-	-	-

Code	11043345 ISONE-EUROPE-RECT-EM-TGM											
Height Y	Width X											
	450	500	550	600	650	700	750	800	850	900	950	1000
900	25	27	29	31	33	35	37	39	41	43	45	47
950	-	28	30	32	34	36	38	40	42	44	46	48
1000	-	29	31	33	35	37	39	41	43	45	47	49
1050	-	-	32	34	36	38	40	42	44	46	48	50

### ACCESSORIES

- Base, cover and terminal block kit: please, see page 28.

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## ISONE rectangular - minimum space requirement

### RECTANGULAR ISONE PRESSURE LOSSES

• The below values are the pressure losses in Pa for a duct velocity of 4 m/s inside the damper.

Height Y	Width X																
	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
200	44	39	36	34	32	31	30	32	31								
250	34	29	26	25	23	22	22	22	21	21	21	20					
300	28	24	21	20	19	22	22	22	22	22	22	23	24	24	25		
350	24	20	18	17	20	19	19	19	19	19	19	20	20	20	21	21	21
400	23	19	17	19	18	17	17	17	17	17	17	17	17	17	17	18	18
450		18	20	18	17	16	16	15	15	15	15	15	15	15	15	15	15
500		23	19	17	16	15	15	14	14	14	14	14	14	14	14	14	14
550			18	16	15	14	14	13	13	13	13	13	13	13			
600			18	16	15	14	14	13	13	12	12	12	12				
650				15	14	13	13	12	12	12	12	12					
700				15	14	13	13	12	12	12	11						

ISONE FdP

Height Y	Width X																											
	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	
200	328	218	170	145	129	118	110	104	108																			
250	149	109	86	73	64	59	55	52	54	52	50	48																
300	98	69	58	52	50	49	48	48	53	54	55	56	58	60	61													
350	82	55	44	39	36	35	34	33	36	36	36	36	36	37	38	38	39	48										
400	77	49	38	33	30	28	27	27	27	27	27	27	27	27	28	28	33	33	37	38								
450		46	35	30	27	25	23	23	23	22	22	22	22	22	22	25	25	28	28	28	29	29	29					
500		45	33	28	24	22	21	20	20	19	19	19	19	18	18	21	21	23	23	23	23	23	23	23	23	24	24	24
550			32	26	23	21	20	19	18	17	17	17	17	16	18	18	20	20	20	20	20	20	20	20	20	20	20	20
600			32	26	22	20	18	17	17	16	16	15	15	16	16	18	17	17	17	17	17	17	17	17	17	17	17	18
650				25	22	19	18	17	16	15	15	14	15	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16
700				25	21	19	17	16	15	15	14	15	15	15	15	15	15	15	14	14	14	14	14	14	14	14	14	
750					21	19	17	16	15	14	15	14	15	14	14	14	14	14	13	13	13	13	13	13	13	13		
800					24	20	18	17	16	15	14	15	14	14	13	13	13	13	13	13	13	13	12	12				
850						20	18	17	15	15	15	14	14	13	13	13	12	12	12	12	12	12	12					
900						20	18	16	15	15	14	14	13	13	12	12	12	12	12	11	11							
950							18	16	15	14	14	13	13	12	12	12	12	12	11	11								
1000							18	16	15	14	13	13	12	12	12	11	11	11	11									
1050								16	15	14	13	13	12	12	11	11	11	11										

ISONE EM