



Smoke Control Damper

VX-6V

in libraries of
Fluid Desk
Building Information Modeling



open in
PartShelf24

EI 120 (v_{ed}-i↔o) S1500
AA multi

EN 1366-10:2011
EN 12101-8:2011

Certificate of Constancy
of Performance

CE 1812-CPR-1060

FUNCTION

The VX-6V smoke control dampers are designed for smoke control systems in buildings outfitted with a one-stage evacuation scenario based on the fire-affected zone separation principle. The dampers meet the requirements for buildings where in the event of a fire the affected zone should be isolated from the other zones, and the escape routes should be protected by means of mechanical smoke control system. The performance criteria are satisfied in case of fire from inside to outside of damper as well as outside to inside or both, respectively.

APPLICATION

The VX-6V dampers can be used in multi compartment smoke control systems and should be activated automatically. Dampers installation is allowed within vertical ducts. The VX-6V dampers are designed for use in systems over the range from the negative pressure of 1500 Pa up to a positive pressure of 500 Pa.

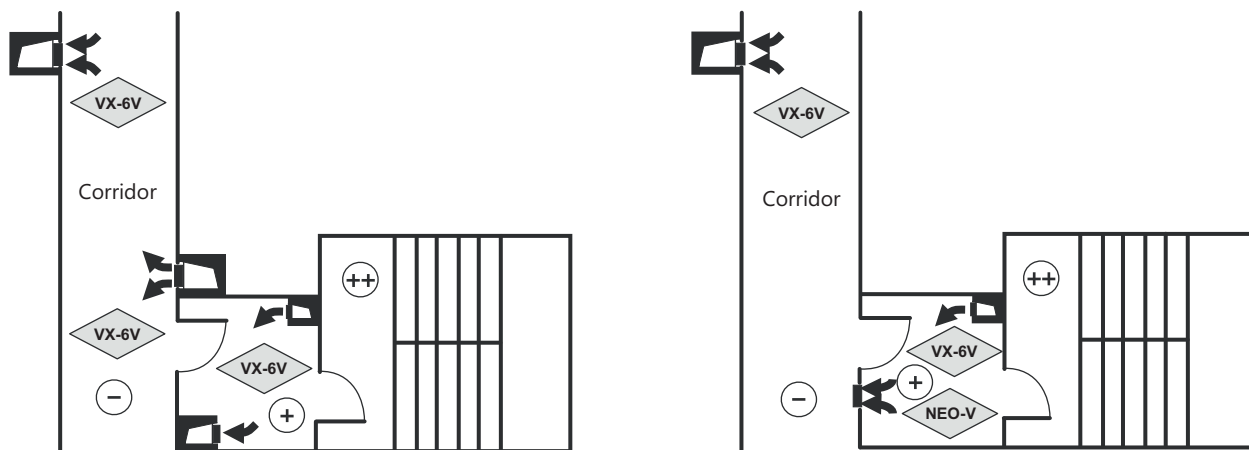
DESCRIPTION

The VX-6V consists of:

- rectangular casing made of galvanized steel sheet and fire resistant board
- movable damper wing made of fire resistant board
- combination of smoke and fire proof seals of damper wing
- control mechanism.



EXAMPLE OF APPLICATION



Dampers location and fire resistance according to local regulations and smoke control system design.

OPTIONS

Dampers can be manufactured with the following options:

EI 60 ($v_{ed-i} \leftrightarrow o$) S1500 AA multi:

- VX-6V, EI60S, 1V - wing opens to the right
- VX-6V, EI60S, 1V + LDG - wing opens to the right and closes with actuator
- VX-6V, EI60S, 1V-SY - wing opens to the left
- VX-6V, EI60S, 2V - two wings

EI 120 ($v_{ed-i} \leftrightarrow o$) S1500 AA multi:

- VX-6V, EI120S, 1V - wing opens to the right
- VX-6V, EI120S, 1V + LDG - wing opens to the right and closes with actuator
- VX-6V, EI120S, 1V-SY - wing opens to the left
- VX-6V, EI120S, 2V - damper two wings



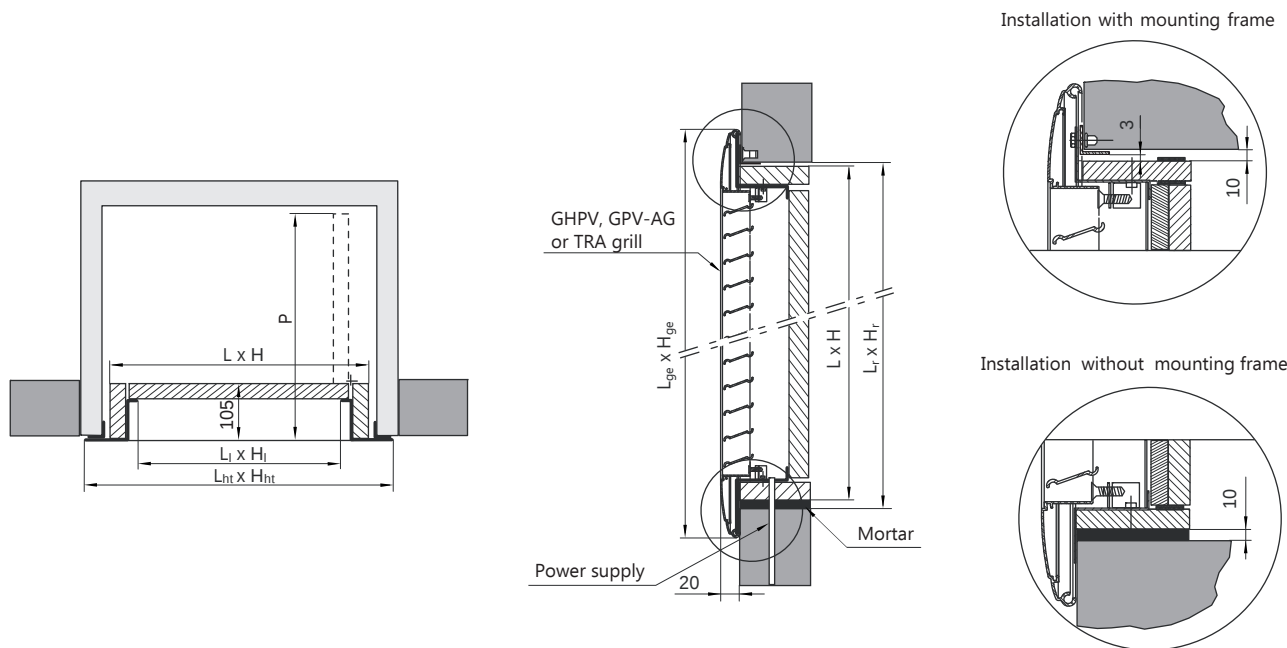
DIMENSIONS AND INSTALLATION METHOD

OPTIONS

EI60S 1V

Type	Options	Dimensions	Effective area dimensions	Installation opening	Opened blade depth	Damper flange	GHPV grill	GPV-AG grill
VX-6V	EI60S, 1V	L x H	$L_l = L - 38$ $H_l = H - 54$	$L_r = L + 20$ $H_r = H + 20$	$P = L + 65$	$L_{ht} = L + 53$ $H_{ht} = H + 39$	$L_{ge} = L + 81$ $H_{ge} = H + 84$	$L_{ge} = L + 71$ $H_{ge} = H + 72$

Dimensions in mm



EFFECTIVE AREA [dm²]

H \ L	315	320	350	390	400	413	450	500	550	573	600	650	700
438	9.0	9.2	10.4	11.9	12.3	12.8	14.2	16.1	18.1	18.9	20.0	21.9	23.8
465	9.8	10.0	11.2	12.9	13.3	13.8	15.3	17.4	19.4	20.4	21.5	23.6	25.6
493	10.6	10.8	12.1	13.9	14.3	14.9	16.5	18.7	20.9	21.9	23.1	25.3	27.5
520	11.3	11.5	12.9	14.8	15.3	15.9	17.6	19.9	22.3	23.3	24.6	26.9	29.2
548	12.1	12.3	13.8	15.8	16.3	16.9	18.8	21.2	23.7	24.8	26.2	28.6	31.1
575	12.8	13.1	14.7	16.7	17.3	17.9	19.9	22.5	25.1	26.3	27.7	30.3	32.9
603	13.6	13.9	15.5	17.7	18.3	19.0	21.0	23.8	26.5	27.8	29.3	32.0	34.7
630	14.4	14.6	16.4	18.7	19.3	20.0	22.1	25.0	27.9	29.2	30.8	33.7	36.5
658	15.1	15.4	17.2	19.7	20.3	21.0	23.3	26.3	29.3	30.7	32.3	35.4	38.4
685	15.9	16.2	18.1	20.6	21.2	22.1	24.4	27.6	30.7	32.2	33.9	37.0	40.2
713	16.7	17.0	19.0	21.6	22.3	23.1	25.6	28.8	32.1	33.7	35.4	38.7	42.0
740	17.4	17.7	19.8	22.5	23.2	24.1	26.7	30.1	33.5	35.1	37.0	40.4	43.8
768	18.2	18.5	20.7	23.5	24.2	25.2	27.8	31.4	35.0	36.6	38.5	42.1	45.7
795	18.9	19.3	21.5	24.5	25.2	26.2	28.9	32.6	36.3	38.0	40.0	43.7	47.5
823	19.7	20.1	22.4	25.5	26.2	27.2	30.1	33.9	37.8	39.5	41.6	45.5	49.3
850	19.9	20.3	22.6	25.8	26.5	27.5	30.4	34.3	38.2	40.0	42.1	46.0	49.8
878	20.7	21.1	23.5	26.7	27.5	28.6	31.6	35.6	39.6	41.5	43.6	47.7	51.7
905	21.4	21.9	24.4	27.7	28.5	29.6	32.7	36.8	41.0	42.9	45.2	49.3	53.5



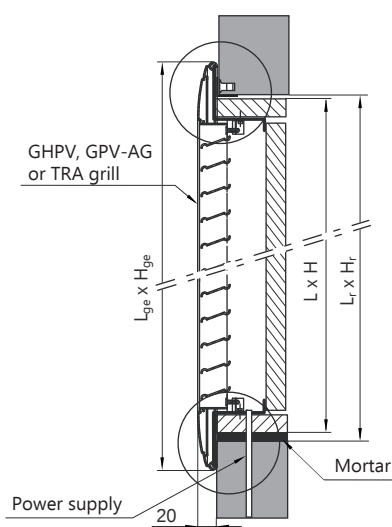
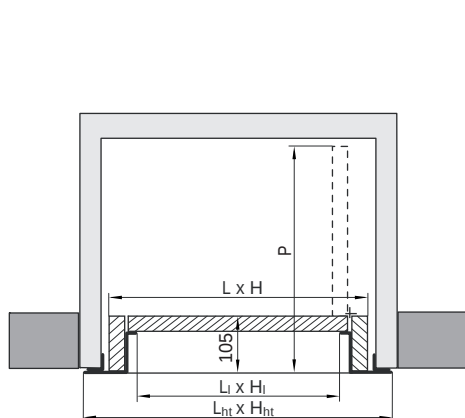
DIMENSIONS AND INSTALLATION METHOD

OPTIONS

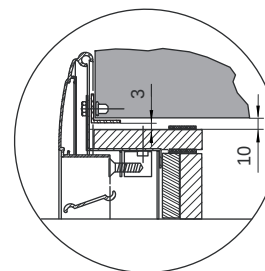
EI60S 2V

Type	Options	Dimensions	Effective area dimensions	Installation opening	Opened blade depth	Damper flange	GHPV grill	GPV-AG grill
VX-6V	EI60S, 2V	L x H	$L_l = L - 43$ $H_l = H - 54$	$L_r = L + 20$ $H_r = H + 20$	$P = L/2 + 110$	$L_{ht} = L + 48$ $H_{ht} = H + 39$	$L_{ge} = L + 76$ $H_{ge} = H + 84$	$L_{ge} = L + 66$ $H_{ge} = H + 72$

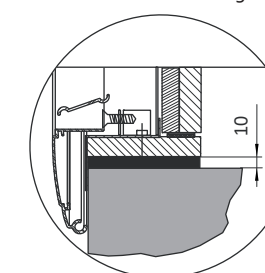
Dimensions in mm



Installation with mounting frame



Installation without mounting frame



EFFECTIVE AREA [dm²]

L \ H	390	400	445	450	500	550	600	650	700	750	800	850	900	920	950	980
438	11.1	11.5	13.2	13.4	15.3	17.3	19.2	21.1	23.0	24.9	26.9	28.8	30.7	31.5	32.6	33.8
465	12.0	12.4	14.2	14.4	16.5	18.5	20.6	22.6	24.7	26.8	28.8	30.9	32.9	33.7	35.0	36.2
493	12.8	13.3	15.3	15.5	17.7	19.9	22.1	24.3	26.4	28.6	30.8	33.0	35.2	36.1	37.4	38.7
520	13.7	14.1	16.2	16.5	18.8	21.1	23.5	25.8	28.1	30.5	32.8	35.2	37.4	38.4	39.8	41.1
548	14.6	15.1	17.3	17.5	20.0	22.5	24.9	27.4	29.9	32.3	34.8	37.3	39.8	40.7	42.2	43.7
575	15.4	15.9	18.3	18.5	21.1	23.7	26.3	28.9	31.6	34.2	36.8	39.4	42.0	43.0	44.6	46.1
603	16.3	16.8	19.3	19.6	22.3	25.1	27.8	30.6	33.3	36.0	38.8	41.5	44.3	45.4	47.0	48.7
630	17.1	17.7	20.3	20.6	23.5	26.3	29.2	32.1	35.0	37.9	40.7	43.6	46.5	47.7	49.4	51.1
658	18.0	18.6	21.3	21.6	24.6	27.7	30.7	33.7	36.7	39.7	42.8	45.8	48.8	50.0	51.8	53.6
685	18.8	19.5	22.3	22.6	25.8	28.9	32.1	35.3	38.4	41.6	44.7	47.9	51.0	52.3	54.2	56.1
713	19.7	20.4	23.3	23.7	27.0	30.3	33.6	36.9	40.2	43.4	46.7	50.0	53.3	54.6	56.6	58.6
740	20.6	21.3	24.3	24.7	28.1	31.5	35.0	38.4	41.8	45.3	48.7	52.1	55.6	56.9	59.0	61.0
768	21.4	22.2	25.4	25.7	29.3	32.9	36.4	40.0	43.6	47.2	50.7	54.3	57.9	59.3	61.4	63.6
795	22.3	23.0	26.4	26.7	30.4	34.1	37.9	41.6	45.3	49.0	52.7	56.4	60.1	61.6	63.8	66.0
823	23.2	23.9	27.4	27.8	31.6	35.5	39.3	43.2	47.0	50.8	54.7	58.5	62.4	63.9	66.2	68.5
850	24.0	24.8	28.4	28.8	32.8	36.7	40.7	44.7	48.7	52.7	56.6	59.9	63.8	65.4	67.8	70.1
878	24.9	25.7	29.4	29.8	34.0	38.1	42.2	46.3	50.4	54.6	58.7	62.1	66.1	67.8	70.2	72.6
905	25.7	26.6	30.4	30.8	35.1	39.3	43.6	47.9	52.1	56.4	60.6	64.1	68.4	70.0	72.6	75.1
933	26.6	27.5	31.4	31.9	36.3	40.7	45.1	49.5	53.9	58.3	62.6	66.3	70.7	72.4	75.0	77.6
960	27.5	28.4	32.4	32.9	37.4	41.9	46.5	51.0	55.5	60.1	64.6	68.4	72.9	74.7	77.4	80.1
988	28.3	29.3	33.5	33.9	38.6	43.3	47.9	52.6	57.3	62.0	66.6	70.6	75.2	77.0	79.8	82.6



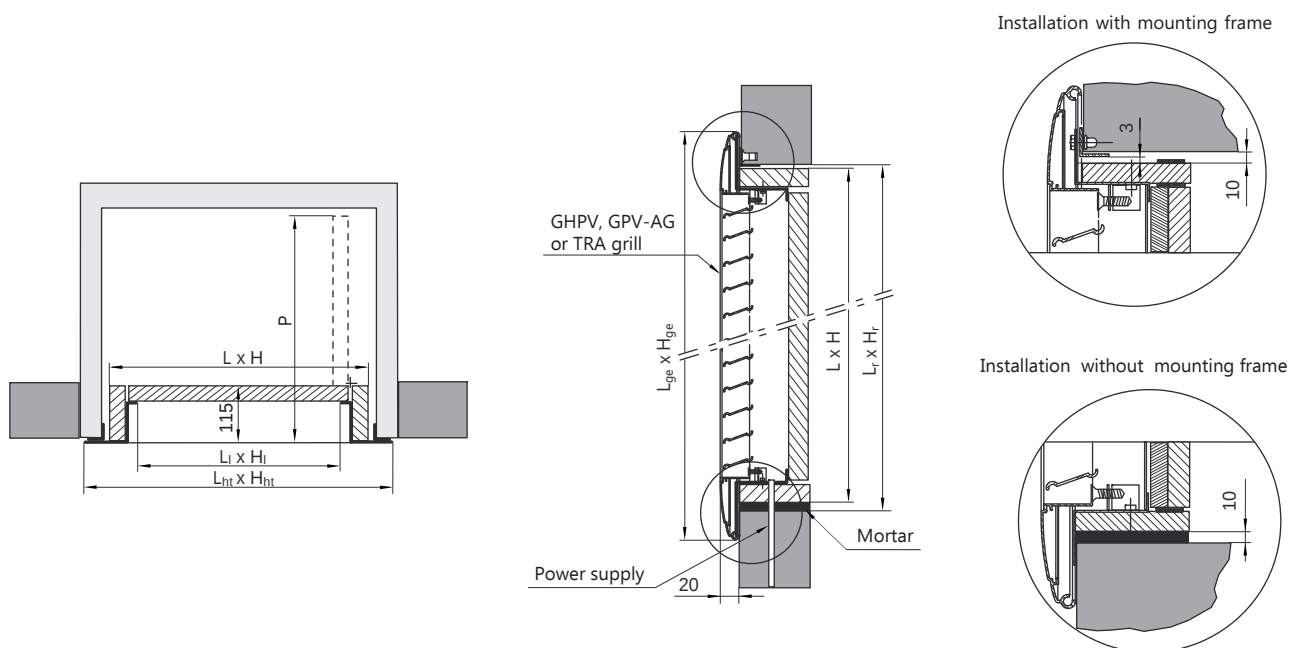
DIMENSIONS AND INSTALLATION METHOD

OPTIONS

EI120S 1V

Type	Options	Dimensions	Effective area dimensions	Installation opening	Opened blade depth	Damper flange	GHPV grill	GPV-AG grill
VX-6V	EI120S, 1V	L x H	$L_l = L - 43$ $H_l = H - 64$	$L_r = L + 20$ $H_r = H + 20$	$P = L + 70$	$L_{ht} = L + 48$ $H_{ht} = H + 29$	$L_{ge} = L + 76$ $H_{ge} = H + 74$	$L_{ge} = L + 66$ $H_{ge} = H + 62$

Dimensions in mm



EFFECTIVE AREA [dm²]

H \ L	350	400	438	450	500	550	600	606	650	700
448	10.2	12.1	13.6	14.0	15.9	17.9	19.8	20.0	21.7	23.6
475	11.0	13.1	14.6	15.1	17.2	19.2	21.3	21.5	23.3	25.4
503	11.9	14.1	15.7	16.3	18.5	20.7	22.9	23.1	25.0	27.2
530	12.7	15.0	16.8	17.4	19.7	22.0	24.4	24.6	26.7	29.0
558	13.6	16.0	17.9	18.5	21.0	23.4	25.9	26.2	28.4	30.9
585	14.4	17.0	19.0	19.6	22.2	24.8	27.4	27.7	30.0	32.6
613	15.3	18.0	20.1	20.7	23.5	26.2	29.0	29.3	31.7	34.5
640	16.1	19.0	21.2	21.8	24.7	27.6	30.5	30.8	33.4	36.2
668	16.9	20.0	22.3	23.0	26.0	29.0	32.0	32.4	35.1	38.1
695	17.8	20.9	23.3	24.1	27.2	30.4	33.5	33.9	36.7	39.9
723	18.6	21.9	24.4	25.2	28.5	31.8	35.1	35.5	38.4	41.7
750	19.5	22.9	25.5	26.3	29.8	33.2	36.6	37.0	40.0	43.5
778	20.3	23.9	26.6	27.5	31.0	34.6	38.2	38.6	41.7	45.3
805	21.1	24.9	27.7	28.6	32.3	36.0	39.7	40.1	43.4	47.1
833	22.0	25.9	28.8	29.7	33.5	37.4	41.2	41.7	45.1	48.9
860	22.3	26.1	29.1	30.0	33.9	37.8	41.7	42.1	45.6	49.4
888	23.1	27.1	30.2	31.2	35.2	39.2	43.2	43.7	47.3	51.3
915	23.9	28.1	31.3	32.3	36.4	40.6	44.7	45.2	48.9	53.1



DIMENSIONS AND INSTALLATION METHOD

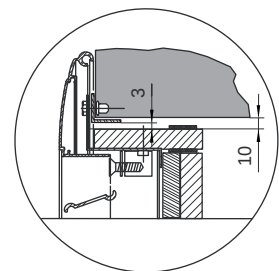
OPTIONS

EI120S 2V

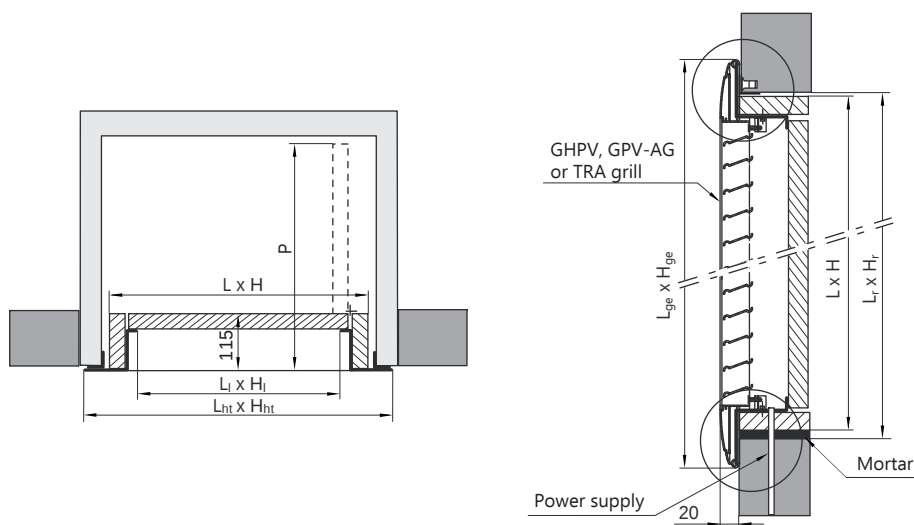
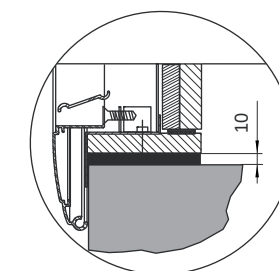
Type	Options	Dimensions	Effective area dimensions	Installation opening	Opened blade depth	Damper flange	GHPV grill	GPV-AG grill
VX-6V	EI120S, 2V	L x H	$L_l = L - 43$ $H_l = H - 64$	$L_r = L + 20$ $H_r = H + 20$	$P = L/2 + 120$	$L_{ht} = L + 48$ $H_{ht} = H + 29$	$L_{ge} = L + 76$ $H_{ge} = H + 74$	$L_{ge} = L + 66$ $H_{ge} = H + 62$

Dimensions in mm

Installation with mounting frame



Installation without mounting frame



EFFECTIVE AREA [dm²]

H \ L	500	550	600	637	650	700	750	800	850	900	950	980
448	15.3	17.3	19.2	20.6	21.1	23.0	24.9	26.9	28.8	30.7	32.6	33.8
475	16.5	18.5	20.6	22.1	22.6	24.7	26.8	28.8	30.9	32.9	35.0	36.2
503	17.7	19.9	22.1	23.7	24.3	26.4	28.6	30.8	33.0	35.2	37.4	38.7
530	18.8	21.1	23.5	25.2	25.8	28.1	30.5	32.8	35.2	37.4	39.8	41.1
558	20.0	22.5	24.9	26.8	27.4	29.9	32.3	34.8	37.3	39.8	42.2	43.7
585	21.1	23.7	26.3	28.3	28.9	31.6	34.2	36.8	39.4	42.0	44.6	46.1
613	22.3	25.1	27.8	29.8	30.6	33.3	36.0	38.8	41.5	44.3	47.0	48.7
640	23.5	26.3	29.2	31.4	32.1	35.0	37.9	40.7	43.6	46.5	49.4	51.1
668	24.6	27.7	30.7	32.9	33.7	36.7	39.7	42.8	45.8	48.8	51.8	53.6
695	25.8	28.9	32.1	34.4	35.3	38.4	41.6	44.7	47.9	51.0	54.2	56.1
723	27.0	30.3	33.6	36.0	36.9	40.2	43.4	46.7	50.0	53.3	56.6	58.6
750	28.1	31.5	35.0	37.5	38.4	41.8	45.3	48.7	52.1	55.6	59.0	61.0
778	29.3	32.9	36.4	39.1	40.0	43.6	47.2	50.7	54.3	57.9	61.4	63.6
805	30.4	34.1	37.9	40.6	41.6	45.3	49.0	52.7	56.4	60.1	63.8	66.0
833	31.6	35.5	39.3	42.2	43.2	47.0	50.8	54.7	58.5	62.4	66.2	68.5
860	32.8	36.7	40.7	43.7	44.7	48.7	52.7	56.6	59.9	63.8	67.8	70.1
888	34.0	38.1	42.2	45.2	46.3	50.4	54.6	58.7	62.1	66.1	70.2	72.6
915	35.1	39.3	43.6	46.8	47.9	52.1	56.4	60.6	64.1	68.4	72.6	75.1
943	36.3	40.7	45.1	48.3	49.5	53.9	58.3	62.6	66.3	70.7	75.0	77.6
970	37.4	41.9	46.5	49.8	51.0	55.5	60.1	64.6	68.4	72.9	77.4	80.1
998	38.6	43.3	47.9	51.4	52.6	57.3	62.0	66.6	70.6	75.2	79.8	82.6

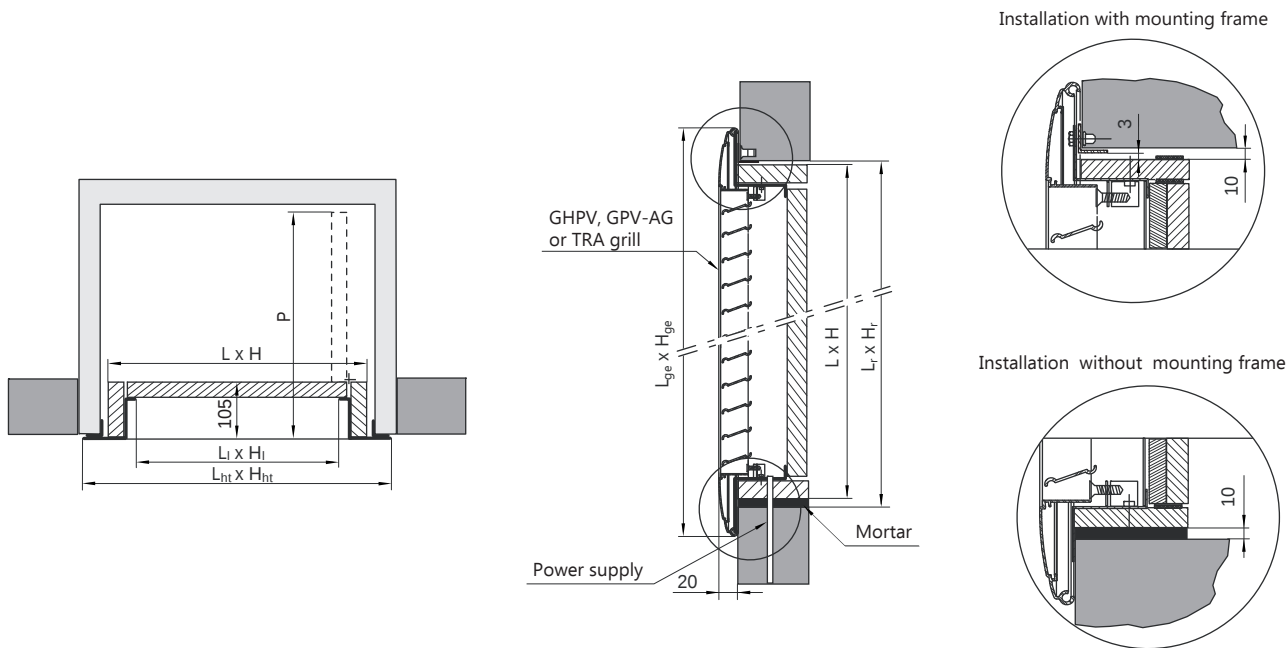


DIMENSIONS AND INSTALLATION METHOD

OPTIONS EI60S 1V+LDG

Type	Options	Dimensions	Effective area dimensions	Installation opening	Opened blade depth	Damper flange	GPV-M grill
VX-6V	EI60S, 1V LDG24	L x H	$L_l = L - 66$ $H_l = H - 56$	$L_r = L + 20$ $H_r = H + 20$	$P = L + 60$	$L_{ht} = L + 48$ $H_{ht} = H + 53$	$L_{ge} = L + 69$ $H_{ge} = H + 79$

Dimensions in mm



EFFECTIVE AREA [dm²]

L \ H	360	400	450	500	550	600	650	700
438	9.6	11.1	13.0	15.0	16.9	18.8	20.7	22.6
465	10.4	12.0	14.1	16.1	18.2	20.3	22.3	24.4
493	11.2	13.0	15.2	17.4	19.6	21.8	24.0	26.1
520	12.0	13.9	16.2	18.5	20.9	23.2	25.5	27.9
548	12.8	14.8	17.3	19.8	22.2	24.7	27.2	29.6
575	13.6	15.7	18.3	20.9	23.5	26.2	28.8	31.4
603	14.5	16.7	19.4	22.2	24.9	27.7	30.4	33.1
630	15.3	17.6	20.5	23.3	26.2	29.1	32.0	34.9
658	16.1	18.5	21.5	24.6	27.6	30.6	33.6	36.6
685	16.9	19.4	22.6	25.7	28.9	32.0	35.2	38.4
713	17.7	20.4	23.7	27.0	30.3	33.5	36.8	40.1
740	17.9	20.6	23.9	27.3	30.6	33.9	37.3	40.6
768	18.8	21.5	25.0	28.5	32.0	35.4	38.9	42.4
795	19.6	22.4	26.1	29.7	33.3	36.9	40.5	44.1
823	20.4	23.4	27.1	30.9	34.6	38.4	42.1	45.9
850	21.2	24.3	28.2	32.1	35.9	39.8	43.7	47.6
878	22.0	25.2	29.3	33.3	37.3	41.3	45.4	49.4
905	22.8	26.1	30.3	34.5	38.6	42.8	46.9	51.1

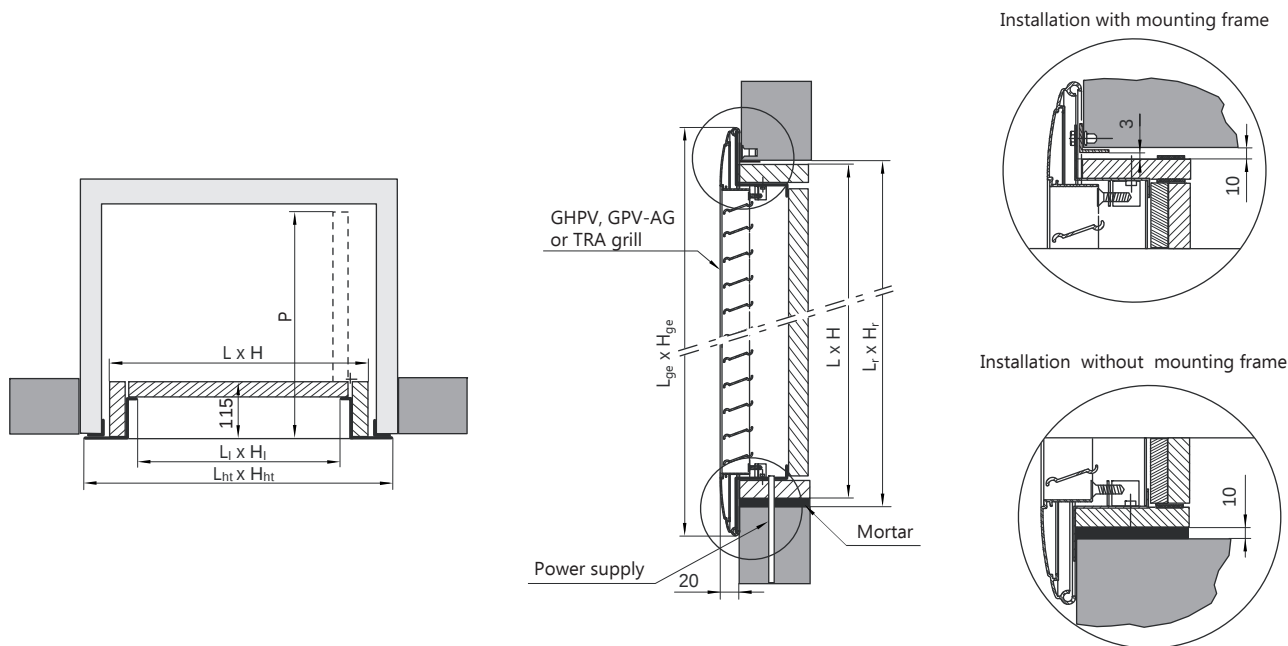


DIMENSIONS AND INSTALLATION METHOD

OPTIONS EI120S 1V+LDG

Type	Options	Dimensions	Effective area dimensions	Installation opening	Opened blade depth	Damper flange	GPV-M grill
VX-6V	EI120S, 1V LDG24	L x H	$L_l = L - 66$ $H_l = H - 66$	$L_r = L + 20$ $H_r = H + 20$	$P = L + 70$	$L_{ht} = L + 48$ $H_{ht} = H + 43$	$L_{ge} = L + 69$ $H_{ge} = H + 69$

Dimensions in mm



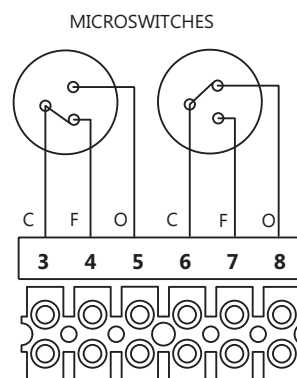
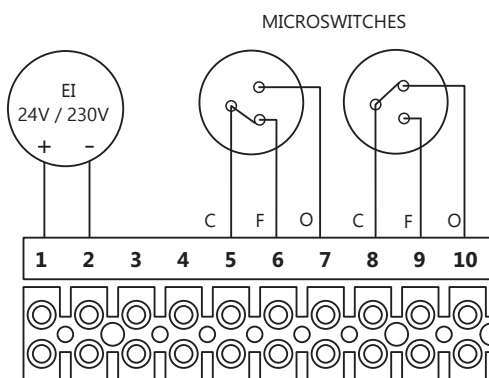
EFFECTIVE AREA [dm²]

L \ H	360	400	450	500	550	600	650	700
448	9.6	11.1	13.0	15.0	16.9	18.8	20.7	22.6
475	10.4	12.0	14.1	16.1	18.2	20.3	22.3	24.4
503	11.2	13.0	15.2	17.4	19.6	21.8	24.0	26.1
530	12.0	13.9	16.2	18.5	20.9	23.2	25.5	27.9
558	12.8	14.8	17.3	19.8	22.2	24.7	27.2	29.6
585	13.6	15.7	18.3	20.9	23.5	26.2	28.8	31.4
613	14.5	16.7	19.4	22.2	24.9	27.7	30.4	33.1
640	15.3	17.6	20.5	23.3	26.2	29.1	32.0	34.9
668	16.1	18.5	21.5	24.6	27.6	30.6	33.6	36.6
695	16.9	19.4	22.6	25.7	28.9	32.0	35.2	38.4
723	17.7	20.4	23.7	27.0	30.3	33.5	36.8	40.1
750	17.9	20.6	23.9	27.3	30.6	33.9	37.3	40.6
778	18.8	21.5	25.0	28.5	32.0	35.4	38.9	42.4
805	19.6	22.4	26.1	29.7	33.3	36.9	40.5	44.1
833	20.4	23.4	27.1	30.9	34.6	38.4	42.1	45.9
860	21.2	24.3	28.2	32.1	35.9	39.8	43.7	47.6
888	22.0	25.2	29.3	33.3	37.3	41.3	45.4	49.4
915	22.8	26.1	30.3	34.5	38.6	42.8	46.9	51.1

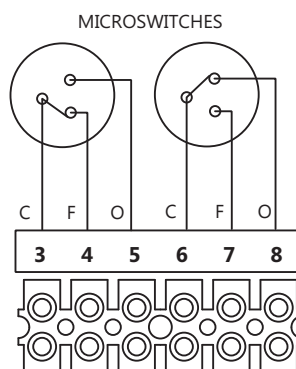
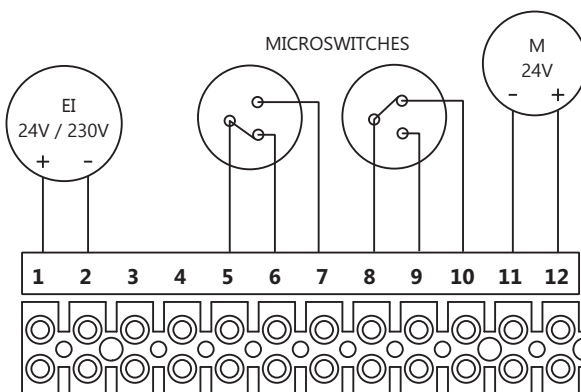


ELECTRICAL WIRING DIAGRAMS

SMOKE CONTROL DAMPER WITH ELECTRO-MAGNET AND MICROSWITCHES



SMOKE CONTROL DAMPER WITH LDG ACTUATOR



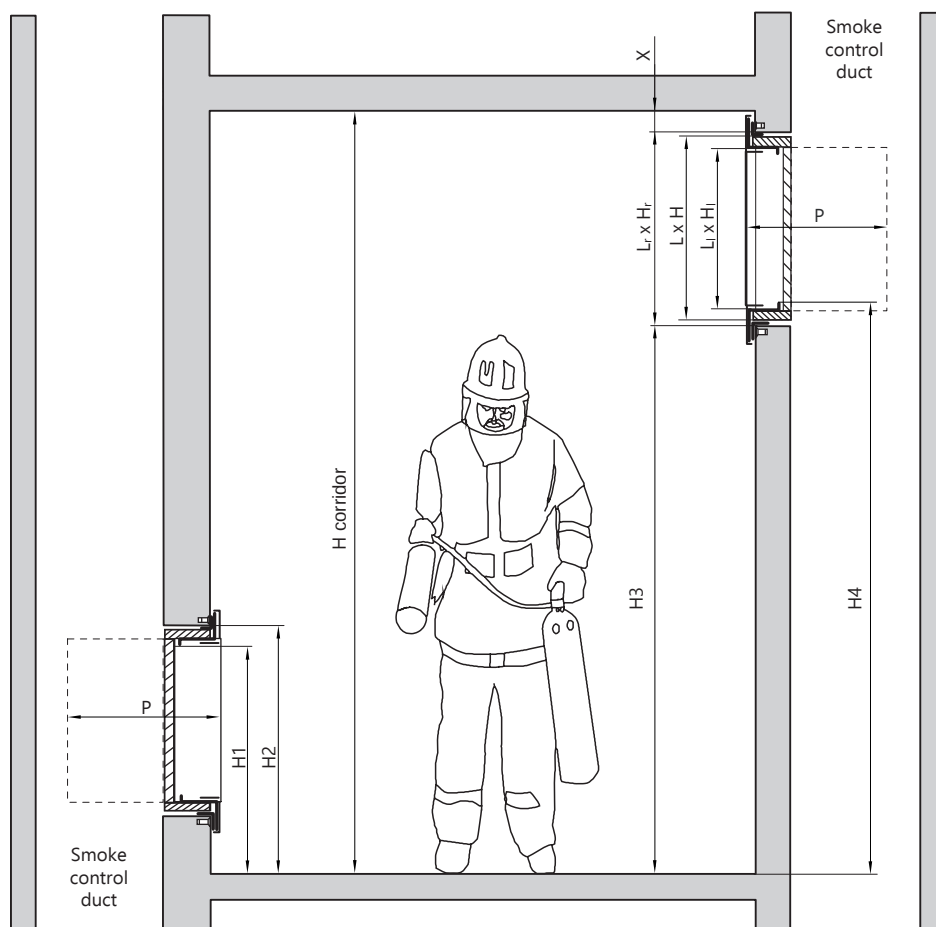
ELECTRO-MAGNET CHARACTERISTICS	
Power voltage	24/48 V DC impulse
Supply input	3,5 W

ACTUATOR CHARACTERISTICS	
Actuator type	LDG-24 V
Supply voltage	24/48 V DC impulse
Maximum current	0,8 A
Running time Motor	up 20 s
Required time between cycles	minimum 10 s
Protection class	IP 42
Ambient temperature normal operation	-5°C +50°C



INSTALATION

RECOMENDED INSTALATION RULES



	EI60S	EI120S	EI60S, 1V + LDG EI120S, 1V + LDG
H1	max 1000 mm	max 1000 mm	max 1000 mm
H2	max 1037 mm	max 1041 mm	max 1035 mm
H3	min 1763 mm	min 1758 mm	min 1758 mm
H4	min 1800 mm	min 1800 mm	min 1800 mm
X	min 37 mm	min 37 mm	min 37 mm

MAXIMUM HEIGHT OF DAMPER IN FUNCTION OF CORRIDOR HEIGHT

H corridor	EI120S	EI120S
2250 mm	438 mm	448 mm
2300 mm	465 mm	475 mm
2350 mm	520 mm	530 mm
2400 mm	575 mm	585 mm
2450 mm	630 mm	640 mm
2500 mm	685 mm	668 mm

Note!

1. Dampers location and fire resistance should respect local regulations and smoke control system design requirements.
2. The maximum height of the damper H max is determined assuming H4 = 1800 [mm] min and X = 32 [mm] min.