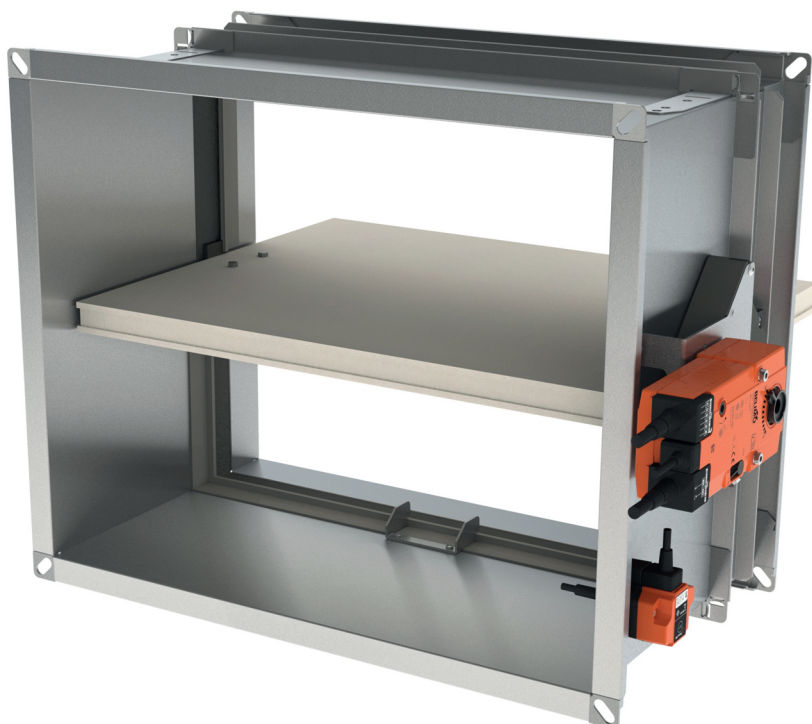




Motorized rectangular fire dampers EI120S type CU-LT+BFLT24

Rectangular fire dampers with a fire resistance of 120 minutes. When the temperature in the damper rises above 70 °C the thermo-electrical link will break and the damper will close. When closed, the expanding material around the fireblade will swell and assure a fire and smoke-tight seal against hot air and smoke. The thin blade is made out of fire resistant calciumsilicate and ensures a relatively high net opening in the damper. The **CU-LT+BFLT24** fire dampers are 24V Belimo actuator operated with indication of the blade position. The actuators are connected to a thermo-electrical fuse and equipped with begin-and end of range switch. The mechanism is easily removable for inspection or repair purposes. For mounting in flexible wall, option +IFW is required. This is a mounting frame that is pre-mounted onto the damper, and ensures its good working when mounted in a flexible wall.

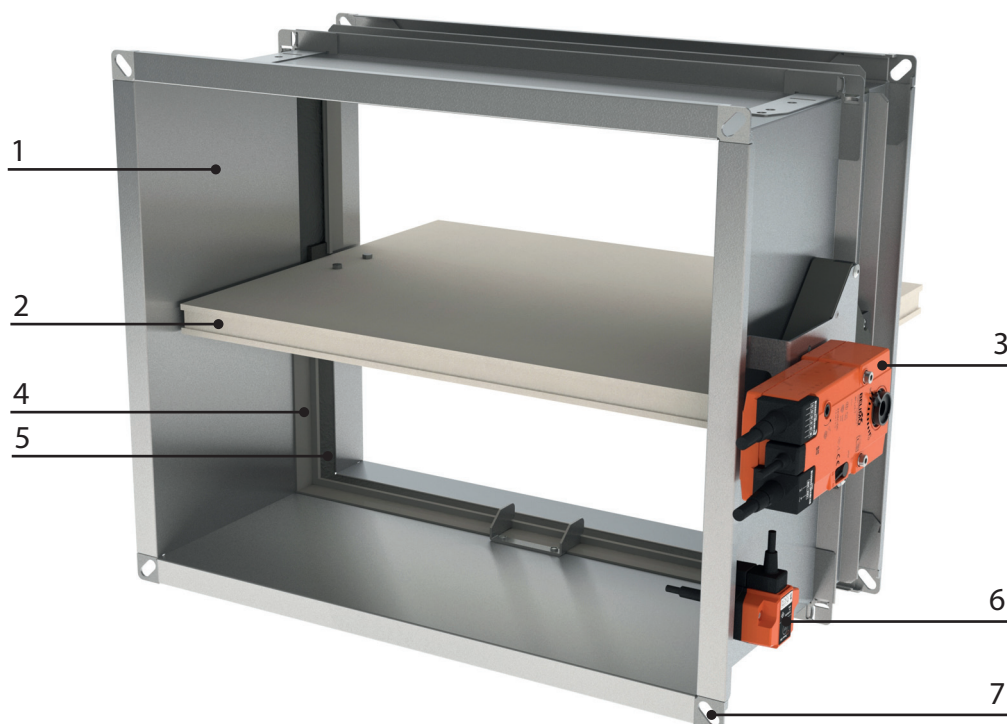
Application

- Fire compartmentation
- To close and seal off ventilation ducts in case of fire
- Range from 200 to 800 mm in width and 100 to 600 mm in height

Material

- Calciumsilicate blade
- Steel tunnel

Construction



Composition

- Steel housing
- Calciumsilicate fireproof blade
- Swelling seal around the blade
- Pre-mounted Belimo BFLT24 actuator with thermal fuse (mounted at same side as the actuator when $H > 300\text{mm}$; mounted at opposite side when $H \leq 300\text{mm}$ and $L < 200\text{mm}$ or mounted underneath when $H \leq 300\text{mm}$ and $L > 200\text{mm}$)
- Standard equipped with duct connection flanges of 20mm
- Please note the height of the mechanism at 100 mm height of the damper (see drawing)

- 1. Refractory casing made of galvanised steel
- 2. Damper blade
- 3. Operating mechanism
- 4. Cold sealing
- 5. Intumescent strip
- 6. Thermo-electric fuse
- 7. Connection frame PG20

Mounting

- To be inserted in fire resistant walls or floors and to be fixed with fireproof mortar
- To be connected with rectangular air ducts by flanges of 20 mm
- Flanges have oval holes at the corners of 8,5 x 16 mm
- to be mounted according to the delivered mounting instructions with the valve

Certification

- Certified according to European standard EN 1366-2
- Classification according to European standard EN 13501-3

Concrete wall :

EI 60 (v_e i $\leftrightarrow$ o) S (500 Pa) and EI 120 (v_e i $\leftrightarrow$ o) S (500 Pa)

Flexible wall :

EI 60 (v_e i $\leftrightarrow$ o) S (500 Pa) option IFW required!

Concrete floor/ceiling :

EI 60 (h_0 i $\leftrightarrow$ o) S (500 Pa) and EI 120 (h_0 i $\leftrightarrow$ o) S (500 Pa)

Symbols

E= Integrity

I= Thermal insulation

S= Smoke Leakage

v_e = Damper directly mounted in the wall

h_0 = Damper directly mounted in the floor/ceiling

i $\leftrightarrow$ o= Fire side randomly

Fire dampers

- Air tightness casing according to EN 1751 Class B (Class C upon request)
- CE-marked

Accessories

- Build-in kit for flexible wall, type **IFW**

Text for tender

- The fire dampers shall be of the rectangular type with a fire resistance of 120 minutes, certified according to EN 13501-3. They will consist of a fireproof Steel tunnel and calciumsilicate valve. The control mechanism will be automatically operated by 24V actuator and shall have a blade position indicator and thermo-electrical link of 70 °C
- ATC type **CU-LT + BFLT24**

Order example

- **CU-LT+IFW+BFLT24, 200, 100**

Explanation

CU-LT = Rectangular fire damper

IFW = Mountingframe (only required when mounting in flexible wall)

BFLT24 = Mechanism

200 = Length damper

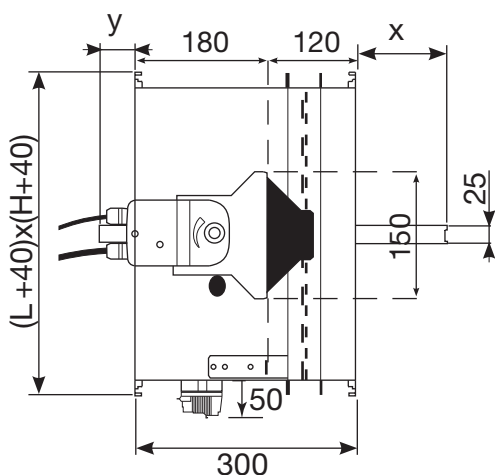
100 = Height damper

Fire dampers

L	H	Ak	Quick selection																							
			v ₃				v ₄				v ₅				v ₆				v ₇				v ₈			
			Q	Vk	Ps	Lw(A)	Q	Vk	Ps	Lw(A)	Q	Vk	Ps	Lw(A)	Q	Vk	Ps	Lw(A)	Q	Vk	Ps	Lw(A)	Q	Vk	Ps	Lw(A)
200	100	0.01	216	6.06	9	17	288	8.08	16	24	360	10.10	25	29	432	12.12	37	34	504	14.14	50	37	576	16.16	65	41
200	150	0.019	324	4.76	5	19	432	6.35	9	26	540	7.94	15	32	648	9.52	21	36	756	11.11	29	40	864	12.70	38	43
200	200	0.028	432	4.30	4	21	576	5.73	7	28	720	7.17	10	33	864	8.60	15	37	1008	10.04	20	41	1152	11.47	27	44
200	250	0.037	540	4.07	3	21	720	5.42	5	28	900	6.78	8	34	1080	8.13	12	38	1260	9.49	16	42	1440	10.84	21	45
200	300	0.046	648	3.92	2	22	864	5.23	4	29	1080	6.54	7	34	1296	7.84	10	39	1512	9.15	13	42	1728	10.46	17	46
200	350	0.055	756	3.83	2	22	1008	5.10	4	29	1260	6.38	6	35	1512	7.65	8	39	1764	8.93	11	43	2016	10.20	15	46
200	400	0.064	864	3.76	2	23	1152	5.01	3	30	1440	6.26	5	35	1728	7.51	7	40	2016	8.76	10	43	2304	10.02	13	46
200	450	0.073	972	3.70	2	23	1296	4.94	3	30	1620	6.17	5	35	1944	7.41	7	40	2268	8.64	9	44	2592	9.88	12	47
200	500	0.082	1080	3.66	2	23	1440	4.88	3	30	1800	6.11	4	36	2160	7.33	6	40	2520	8.55	9	44	2880	9.77	11	47
200	550	0.091	1188	3.63	1	23	1584	4.84	3	30	1980	6.05	4	36	2376	7.26	6	40	2772	8.47	8	44	3168	9.68	10	47
200	600	0.1	1296	3.60	1	24	1728	4.80	2	31	2160	6.01	4	36	2592	7.21	5	40	3024	8.41	7	44	3456	9.61	10	47
250	100	0.013	270	5.93	9	17	360	7.91	16	24	450	9.88	25	30	540	11.86	36	34	630	13.83	49	38	720	15.81	63	41
250	150	0.024	405	4.66	5	20	540	6.21	9	27	675	7.76	14	32	810	9.32	20	36	945	10.87	27	40	1080	12.42	36	43
250	200	0.036	540	4.21	3	21	720	5.61	6	28	900	7.01	9	33	1080	8.42	14	38	1260	9.82	19	41	1440	11.22	24	45
250	250	0.047	675	3.98	3	22	900	5.30	5	29	1125	6.63	7	34	1350	7.95	10	39	1575	9.28	14	42	1800	10.60	18	45
250	300	0.059	810	3.84	2	22	1080	5.12	4	29	1350	6.39	6	35	1620	7.67	8	39	1890	8.95	11	43	2160	10.23	15	46
250	350	0.07	945	3.74	2	23	1260	4.99	3	30	1575	6.24	5	35	1890	7.48	7	40	2205	8.73	10	43	2520	9.98	13	47
250	400	0.082	1080	3.67	2	23	1440	4.90	3	30	1800	6.12	4	36	2160	7.35	6	40	2520	8.57	9	44	2880	9.80	11	47
250	450	0.093	1215	3.62	1	24	1620	4.83	3	31	2025	6.04	4	36	2430	7.25	6	40	2835	8.45	8	44	3240	9.66	10	47
250	500	0.105	1350	3.58	1	24	1800	4.78	2	31	2250	5.97	4	36	2700	7.17	5	41	3150	8.36	7	44	3600	9.56	9	48
250	550	0.116	1485	3.55	1	24	1980	4.74	2	31	2475	5.92	3	36	2970	7.10	5	41	3465	8.29	6	45	3960	9.47	8	48
250	600	0.128	1620	3.53	1	24	2160	4.70	2	31	2700	5.88	3	37	3240	7.05	4	41	3780	8.23	6	45	4320	9.40	8	48
300	100	0.015	324	5.84	9	17	432	7.79	16	24	540	9.74	24	30	648	11.69	35	34	756	13.64	48	38	864	15.58	62	41
300	150	0.029	486	4.59	5	20	648	6.12	9	27	810	7.65	13	32	972	9.18	19	36	1134	10.71	26	40	1296	12.24	34	43
300	200	0.043	648	4.15	3	21	864	5.53	6	28	1080	6.91	9	33	1296	8.29	13	38	1512	9.68	18	42	1728	11.06	23	45
300	250	0.057	810	3.92	2	22	1080	5.23	4	29	1350	6.53	7	34	1620	7.84	10	39	1890	9.15	13	42	2160	10.45	17	46
300	300	0.071	972	3.78	2	23	1296	5.04	3	30	1620	6.30	5	35	1944	7.56	8	39	2268	8.82	10	43	2592	10.08	13	46
300	350	0.085	1134	3.69	2	23	1512	4.92	3	30	1890	6.15	5	36	2268	7.38	6	40	2646	8.61	9	44	3024	9.84	12	47
300	400	0.099	1296	3.62	1	24	1728	4.83	3	31	2160	6.04	4	36	2592	7.24	6	40	3024	8.45	8	44	3456	9.66	10	47
300	450	0.113	1458	3.57	1	24	1944	4.76	2	31	2430	5.95	3	36	2916	7.14	5	41	3402	8.33	7	44	3888	9.52	9	48
300	500	0.127	1620	3.53	1	24	2160	4.71	2	31	2700	5.89	3	37	3240	7.06	4	41	3780	8.24	6	45	4320	9.42	8	48
300	550	0.141	1782	3.50	1	25	2376	4.67	2	31	2970	5.83	3	37	3564	7	4	41	4158	8.17	6	45	4752	9.34	7	48
300	600	0.155	1944	3.47	1	25	2592	4.63	2	32	3240	5.79	3	37	3888	6.95	4	41	4536	8.11	5	45	5184	9.27	7	48
350	100	0.018	378	5.79	9	17	504	7.71	15	24	630	9.64	24	30	756	11.57	35	34	882	13.50	47	38	1008	15.43	61	41
350	150	0.035	567	4.55	5	20	756	6.06	8	27	945	7.58	13	32	1134	9.09	19	37	1323	10.61	26	40	1512	12.12	33	43
350	200	0.051	756	4.11	3	21	1008	5.47	5	28	1260	6.84	9	34	1512	8.21	12	38	1764	9.58	17	42	2016	10.95	22	45
350	250	0.068	945	3.88	2	22	1260	5.17	4	29	1575	6.47	6	35	1890	7.76	9	39	2205	9.05	12	43	2520	10.35	16	46
350	300	0.084	1134	3.74	2	23	1512	4.99	3	30	1890	6.24	5	35	2268	7.49	7	40	2646	8.73	10	43	3024	9.98	13	47
350	350	0.101	1323	3.65	1	23	1764	4.87	3	30	2205	6.09	4	36	2646	7.30	6	40	3087	8.52	8	44	3528	9.74	10	47
350	400	0.117	1512	3.59	1	24	2016	4.78	2	31	2520	5.98	3	36	3024	7.17	5	41	3528	8.37	7	44	4032	9.56	9	48
350	450	0.134	1701	3.54	1	24	2268	4.71	2	31	2835	5.89	3	37	3402	7.07	4	41	3969	8.25	6	45	4536	9.43	8	48
350	500	0.15	1890	3.50	1	25	2520	4.66	2	32	3150	5.83	3	37	3780	6.99	4	41	4410	8.16	5	45	5040	9.32	7	48
350	550	0.167	2079	3.47	1	25	2772	4.62	2	32	3465	5.78	2	37	4158	6.93	3	42	4851	8.09	5	45	5544	9.24	6	48
350	600	0.183	2268	3.44	1	25	3024	4.59	1	32	3780	5.73	2	37	4536	6.88	3	42	5292	8.03	4	45	6048	9.17	6	49
400	100	0.021	432	5.74	9	17	576	7.66	15	24	720	9.57	24	30	864	11.48	34	34	1008	13.40	47	38	1152	15.31	61	41
400	150	0.04	648	4.51	5	20	864	6.02	8	27	1080															

Fire dampers

L	H	Ak	Quick selection																							
			v ₃				v ₄				v ₅				v ₆				v ₇				v ₈			
			Q	Vk	Ps	Lw(A)	Q	Vk	Ps	Lw(A)	Q	Vk	Ps	Lw(A)	Q	Vk	Ps	Lw(A)	Q	Vk	Ps	Lw(A)	Q	Vk	Ps	Lw(A)
650	150	0.066	1053	4.42	4	20	1404	5.90	8	27	1755	7.37	12	32	2106	8.84	17	37	2457	10.32	24	41	2808	11.79	31	44
650	200	0.098	1404	3.99	3	22	1872	5.33	5	29	2340	6.66	8	34	2808	7.99	11	38	3276	9.32	15	42	3744	10.65	19	45
650	250	0.129	1755	3.77	2	23	2340	5.03	3	30	2925	6.29	5	35	3510	7.55	8	39	4095	8.81	10	43	4680	10.07	13	46
650	300	0.161	2106	3.64	1	24	2808	4.86	3	30	3510	6.07	4	36	4212	7.28	6	40	4914	8.50	8	44	5616	9.71	10	47
650	350	0.192	2457	3.55	1	24	3276	4.74	2	31	4095	5.92	3	36	4914	7.10	5	41	5733	8.29	6	45	6552	9.47	8	48
650	400	0.224	2808	3.49	1	25	3744	4.65	2	32	4680	5.81	3	37	5616	6.98	4	41	6552	8.14	5	45	7488	9.30	7	48
650	450	0.255	3159	3.44	1	25	4212	4.59	1	32	5265	5.73	2	37	6318	6.88	3	42	7371	8.02	4	46	8424	9.17	6	49
650	500	0.287	3510	3.40	1	26	4680	4.54	1	32	5850	5.67	2	38	7020	6.80	3	42	8190	7.94	4	46	9360	9.07	5	49
650	550	0.318	3861	3.37	1	26	5148	4.49	1	33	6435	5.62	2	38	7722	6.74	2	43	9009	7.87	3	46	10296	8.99	4	49
650	600	0.35	4212	3.35	1	26	5616	4.46	1	33	7020	5.58	2	38	8424	6.69	2	43	9828	7.81	3	47	11232	8.92	4	50
700	100	0.037	756	5.61	8	17	1008	7.49	15	24	1260	9.36	23	30	1512	11.23	33	34	1764	13.10	45	38	2016	14.97	59	41
700	150	0.071	1134	4.41	4	20	1512	5.88	8	27	1890	7.35	12	32	2268	8.82	17	37	2646	10.29	23	41	3024	11.76	30	44
700	200	0.105	1512	3.98	3	22	2016	5.31	5	29	2520	6.64	7	34	3024	7.97	11	38	3528	9.30	14	42	4032	10.63	19	45
700	250	0.139	1890	3.77	2	23	2520	5.02	3	30	3150	6.28	5	35	3780	7.53	8	39	4410	8.79	10	43	5040	10.04	13	46
700	300	0.173	2268	3.63	1	24	3024	4.84	3	31	3780	6.06	4	36	4536	7.27	6	40	5292	8.48	8	44	6048	9.69	10	47
700	350	0.207	2646	3.54	1	24	3528	4.73	2	31	4410	5.91	3	37	5292	7.09	5	41	6174	8.27	6	45	7056	9.45	8	48
700	400	0.241	3024	3.48	1	25	4032	4.64	2	32	5040	5.80	3	37	6048	6.96	4	41	7056	8.12	5	45	8064	9.28	7	48
700	450	0.275	3402	3.43	1	25	4536	4.58	1	32	5670	5.72	2	38	6804	6.86	3	42	7938	8.01	4	46	9072	9.15	5	49
700	500	0.309	3780	3.39	1	26	5040	4.52	1	33	6300	5.66	2	38	7560	6.79	3	42	8820	7.92	4	46	10080	9.05	5	49
700	550	0.343	4158	3.36	1	26	5544	4.48	1	33	6930	5.61	2	38	8316	6.73	2	43	9702	7.85	3	46	11088	8.97	4	50
700	600	0.377	4536	3.34	1	26	6048	4.45	1	33	7560	5.56	2	39	9072	6.68	2	43	10584	7.79	3	47	12096	8.90	4	50
750	100	0.04	810	5.60	8	18	1080	7.47	15	24	1350	9.34	23	30	1620	11.21	33	34	1890	13.08	45	38	2160	14.94	59	41
750	150	0.077	1215	4.40	4	20	1620	5.87	8	27	2025	7.34	12	32	2430	8.81	17	37	2835	10.27	23	41	3240	11.74	30	44
750	200	0.113	1620	3.98	3	22	2160	5.30	5	29	2700	6.63	7	34	3240	7.95	11	38	3780	9.28	14	42	4320	10.61	19	45
750	250	0.15	2025	3.76	2	23	2700	5.01	3	30	3375	6.26	5	35	4050	7.52	7	40	4725	8.77	10	43	5400	10.02	13	46
750	300	0.186	2430	3.63	1	24	3240	4.83	3	31	4050	6.04	4	36	4860	7.25	6	40	5670	8.46	8	44	6480	9.67	10	47
750	350	0.223	2835	3.54	1	24	3780	4.72	2	31	4725	5.89	3	37	5670	7.07	4	41	6615	8.25	6	45	7560	9.43	8	48
750	400	0.259	3240	3.47	1	25	4320	4.63	2	32	5400	5.79	2	37	6480	6.95	3	42	7560	8.10	5	45	8640	9.26	6	48
750	450	0.296	3645	3.42	1	25	4860	4.57	1	32	6075	5.71	2	38	7290	6.85	3	42	8505	7.99	4	46	9720	9.13	5	49
750	500	0.332	4050	3.39	1	26	5400	4.52	1	33	6750	5.65	2	38	8100	6.77	3	42	9450	7.90	4	46	10800	9.03	5	49
750	550	0.369	4455	3.36	1	26	5940	4.48	1	33	7425	5.59	2	38	8910	6.71	2	43	10395	7.83	3	46	11880	8.95	4	50
750	600	0.405	4860	3.33	0	26	6480	4.44	1	33	8100	5.55	1	39	9720	6.66	2	43	11340	7.77	3	47	12960	8.89	3	50
800	100	0.043	864	5.59	8	18	1152	7.46	15	24	1440	9.32	23	30	1728	11.19	33	34	2016	13.05	45	38	2304	14.92	59	41
800	150	0.082	1296	4.40	4	20	1728	5.86	7	27	2160	7.33	12	33	2592	8.79	17	37	3024	10.26	23	41	3456	11.72	30	44
800	200	0.121	1728	3.97	3	22	2304	5.29	5	29	2880	6.62	7	34	3456	7.94	11	38	4032	9.26	14	42	4608	10.59	19	45
800	250	0.16	2160	3.75	2	23	2880	5	3	30	3600	6.25	5	35	4320	7.50	7	40	5040	8.76	10	43	5760	10.01	13	47
800	300	0.199	2592	3.62	1	24	3456	4.83	2	31	4320	6.03	4	36	5184	7.24	5	40	6048	8.45	7	44	6912	9.65	10	47
800	350	0.238	3024	3.53	1	24	4032	4.71	2	31	5040	5.88	3	37	6048	7.06	4	41	7056	8.24	6	45	8064	9.42	8	48
800	400	0.277	3456	3.47	1	25	4608	4.62	2	32	5760	5.78	2	37	6912	6.93	3	42	8064	8.09	5	45	9216	9.25	6	49
800	450	0.316	3888	3.42	1	25	5184	4.56	1	32	6480	5.70	2	38	7776	6.84	3	42	9072	7.98	4	46	10368	9.12	5	49
800	500	0.355	4320	3.38	1	26	5760	4.51	1	33	7200	5.64	2	38	8640	6.76	3	42	10080	7.89	4	46	11520	9.02	5	49
800	550	0.394	4752	3.35	1	26	6336	4.47	1	33	7920	5.59	2	38	9504	6.70	2	43	11088	7.82	3	47	12672	8.94	4	50
800	600	0.433	5184	3.33	0	26	6912	4.44	1	33	8640	5.54	1	39	10368	6.65	2	43	12096	7.76	3	47	13824	8.87	3	50



Dimensions		
CU-LT + BFLT	x =(H-6)/2-70	y =(H-6)/2-230

Electrical connection

