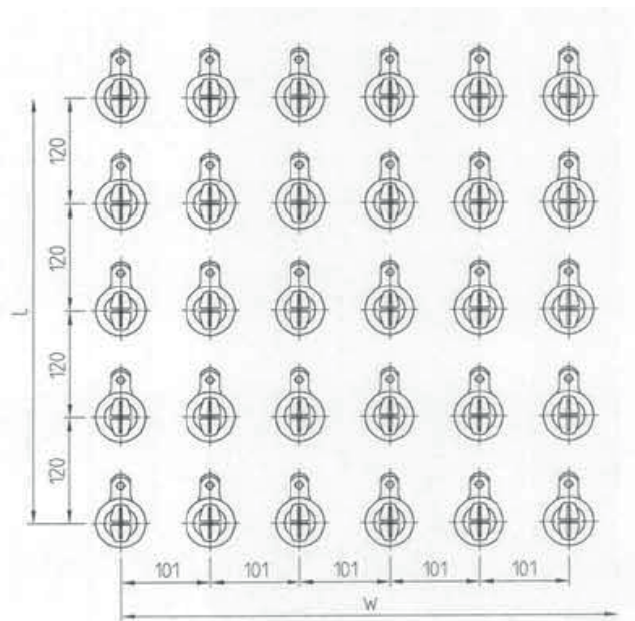
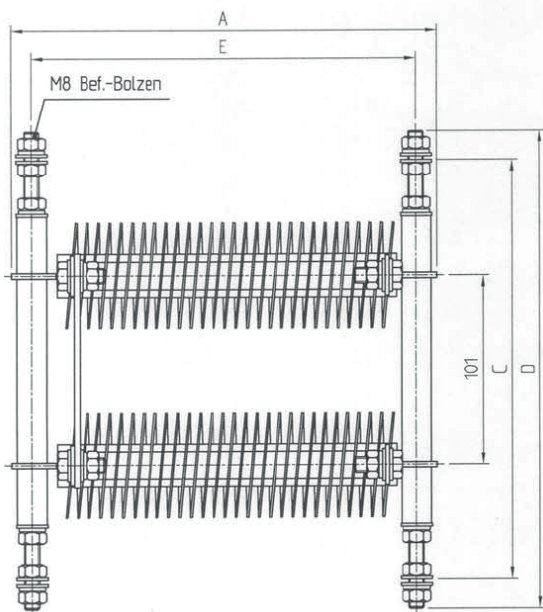
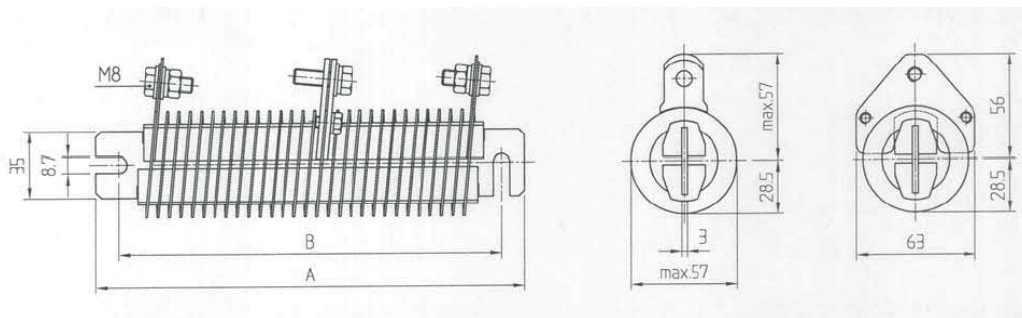




FLAT WIRE RESISTORS MODEL ZO

TECHNICAL DESIGN



GENERAL FEATURES

Production and Assembly

Our spiral resistors consist of a steel frame with ceramic supports that hold in place the special resistive plate with rib winding. The resistors can be delivered as single pieces or in a package holding from two to six units, on request, with perforated sheet metal protection and additional terminals welded or attached with screws.

Characteristics

- Nominal range of power: 110 to 2225 W
- Standard tolerance: $\pm 10\%$ (lower tolerances are available)
- The design allows for high operating temperatures

Use

- Additional stator resistors to limit incoming current
- Start up and adjustment resistors
- Resistors for high power resistive plants with forced air cooling

Relative documents

- Model ZO Spiral Resistor Technical Card
- Design quoted: combinations
- Card: Model 3ZO casing

Assembly

- Promatized steel frame, passivated blue with ceramic supports
- Special resistive plate with rib winding
- Welded terminals

Production

- Normally produced with welded terminals
- On request:
 - with sockets welded or fixed with screws
 - in packages with 2 to 6 units

Current reduction in the event of mechanical combinations

The approximate percentile reduction of current to be taken into consideration in the event of assembly of combinations with horizontal "W" resistors and vertical "L" resistors is indicated below.

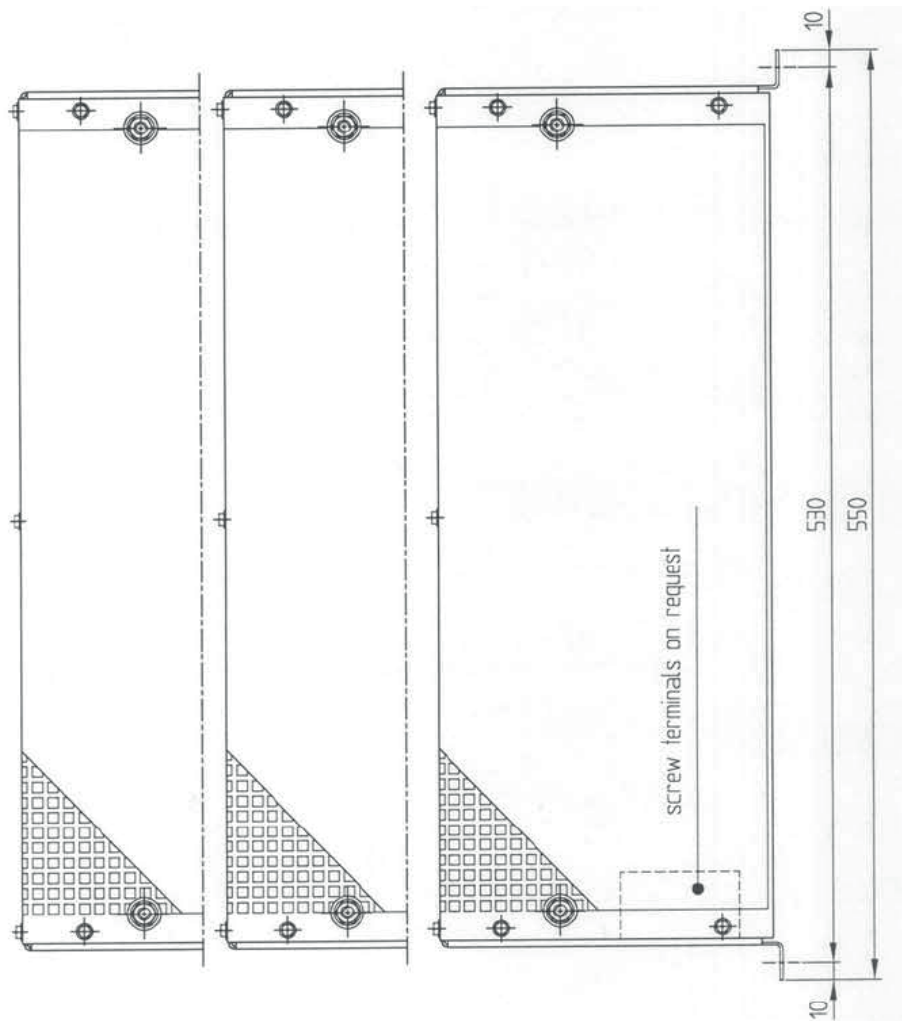
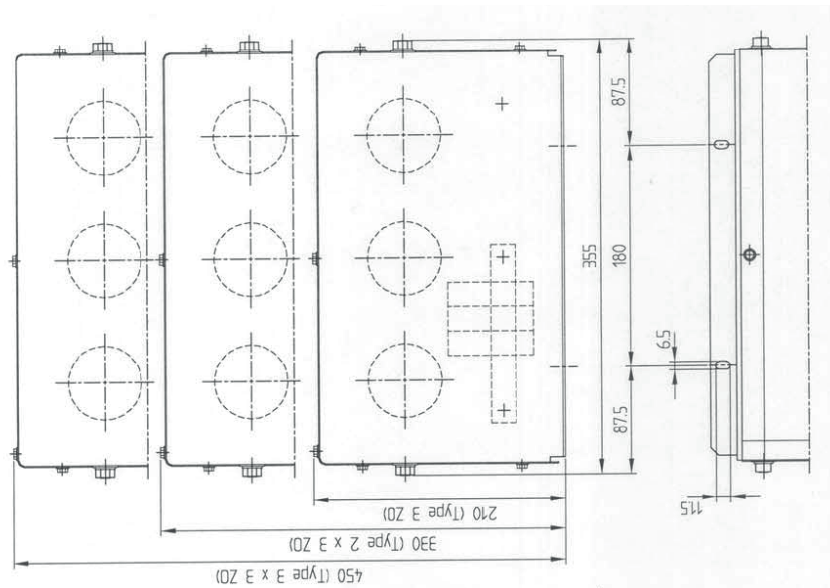
The distances indicated must be observed.

TYPE	Dimensions	
	A	E
ZO.1	118	95
ZO.2	191	168
ZO.3	266	243
ZO.4	338	315
ZO.5	413	390
ZO.6	486	463
ZO.7	560	537
ZO.8	634	611
ZO.9	709	686

Nr. of units	Dimensions	
	C	D
2	228	254
3	330	355
4	431	457
5	533	558
6	635	660

L \ W	2	3	> 3
	2	-	3 %
3	3 %	8 %	15 %
4	8 %	10 %	20 %
5	10 %	15 %	25 %

TECHNICAL DESIGN



GENERAL FEATURES

Type				ZO.1	ZO.2	ZO.3	ZO.4	ZO.5	ZO.6	ZO.7	ZO.8	ZO.9
Pos.	Charge at $T_U = 20^\circ\text{C}$ and ΔT			Available resistance values*								
	300 °C I_N [A]	400 °C I_N [A]	500 °C I_N [A]									
1	64	80	96	R027	R066	R109	R146	R185	R225	R265	R305	R346
2	47	58	70	R037	R093	R152	R205	R26	R315	R365	R42	R48
3	37	46	56	R052	R13	R21	R285	R36	R44	R51	R59	R67
4	33	41	50	R07	R17	R28	R385	R49	R59	R69	0R8	R91
5	31	38	46	R102	R256	R415	R57	R72	R87	1R01	1R18	1R34
6	28	34	41	R133	R332	R54	R735	R93	1R13	1R32	1R52	1R74
7	24	29	35	R176	R44	R72	R985	1R24	1R5	1R76	2R03	2R31
8	22	27	33	0R2	0R5	0R8	1R1	1R38	1R68	1R97	2R26	2R57
9	17	21	26	0R3	R75	1R2	1R65	2R08	2R52	2R96	3R5	3R86
10	15	18	22	0R4	1R0	1R6	2R2	2R78	3R35	3R94	4R52	5R15
Tolerance				K ($\pm 10\%$), tighter tolerances on request								
Temperature coefficient				Pos.1 + 2: +20 ppm / Pos.3 + 4: +730 ppm / Pos.5 -10: +100 ppm								
Dielectric strength				3 kV / 50 Hz / 1 Minute								
Surface temperature				Welded connectors: 600 °C / Screwed connectors : 400 °C								
Dimensions A				118	191	266	338	413	486	560	634	709
Dimensions B				94	167	242	314	389	462	536	610	685

*Other resistance values on request