

Aluminum Encased Wirewound Power Resistors, Braking Resistors

TYPE1: EMZ Series
TYPE2: EMC Series
TYPE3: EMCB Series



Power rating: 40W-3000W

Resistance value: 0.01 Ω -100K Ω

Resistance tolerance: $\pm 0.1\%$, $\pm 0.5\%$, $\pm 1\%$, $\pm 5\%$, $\pm 10\%$

● Construction:

1. An aluminum encased consists of an alloy metal coil-type resistance element assembled into an aluminum enclosure.
2. Following high-temperature anodization, the enclosure is filled with a special non-flammable cement paste and after hardening. Insulation is applied through a high temperature process.
3. Since this component is embedded in the heat-proof cement, it is not affected by external mechanical force, and dusty environments and extreme duty.

● Features:

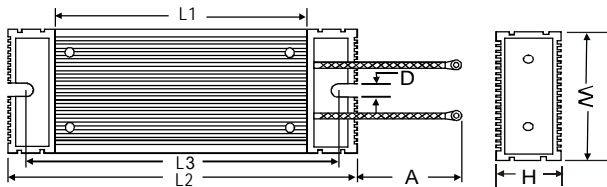
1. Durable, vibration-proof, dissipates heat well and low temperature coefficient with resistance varying in direct proportion.
2. ASZ series successfully applied for national patent (ZL2004300866567)
3. Specification: 80W60R, 80W100R, 80W20R, 100W20R, 100W100R, 120W68R, 150W20R, 200W20R, 200W200R, 300W20R, 300W150R, 300W200R, 400W150R, 400W20R, 500W100R, 500W20R, 800W75R, 1040W50R, 1040W75R ect.
4. For non-standard technical requirements and custom special applications, please contact us to discuss the details.
5. Delivery: 5-7 days
6. Conforms to the ROHS standard and the LEAD-FREE non-lead standard

● Applications:

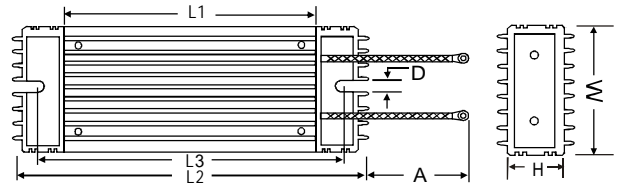
The product is easy to utilize and install, and suitable for a wide range applications. Applications include industrial machinery, load testing, electric power distribution, instruments, and automated control installations.

● Dimensions

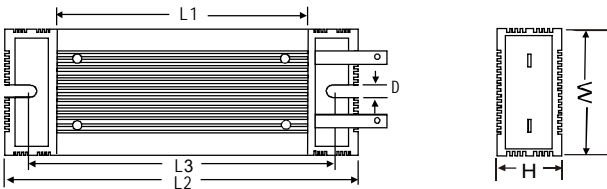
Type:EMZ 6030 & 4020



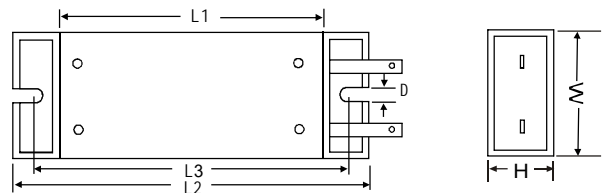
Type:EMZ 6038 & 4026



Type:EMZ 7045



Type:EMZ7644

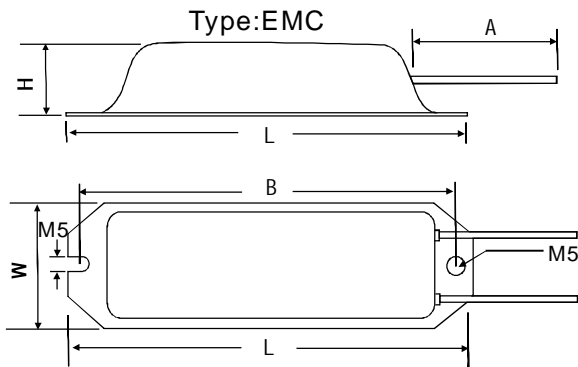


POWER RATING	DIMENSIONS (mm)						
	W±1	H±1	L1±2	L2±2	L3±2	D±0.5	A±10
40W	40	20	60	90	75	5.2	300
60W	40	20	85	115	100	5.2	300
80W	40	20	115	140	125	5.2	300
100W	40	20	115	140	125	5.2	300
120W	40	20	155	185	170	5.2	300
150W	40	20	155	185	170	5.2	300
200W	60	30	130	165	150	5.2	300
250W	60	30	130	165	150	5.2	300
300W	60	30	180	215	200	5.2	300
400W	60	30	230	265	250	5.2	300
500W	60	30	300	335	320	5.2	300
600W	60	30	300	335	320	5.2	300
800W	60	30	330	365	350	5.2	300
1000W	70	45	300	335	320	5.2	300
1200W	70	45	365	400	385	5.2	\
1500W	70	45	415	450	435	5.2	\
2000W	70	45	465	500	485	5.2	\
2500W	70	45	515	550	535	5.2	\
3000W	70	45	565	600	585	5.2	\

POWER RATING	DIMENSIONS (mm)						
	W±1	H±1	L1±2	L2±2	L3±2	D±0.5	A±10
40W	40	26	60	90	75	5.2	300
60W	40	26	85	115	100	5.2	300
80W	40	26	115	140	125	5.2	300
100W	40	26	115	140	125	5.2	300
120W	40	26	155	185	170	5.2	300
150W	40	26	155	185	170	5.2	300
200W	60	38	130	165	150	5.2	300
250W	60	38	130	165	150	5.2	300
300W	60	38	180	215	200	5.2	300
400W	60	38	230	265	250	5.2	300
500W	60	38	300	335	320	5.2	300
600W	60	38	300	335	320	5.2	300
800W	60	38	330	365	350	5.2	300
1000W	76	44	300	335	320	5.2	300
1200W	76	44	365	400	385	5.2	\
1500W	76	44	415	450	435	5.2	\
2000W	76	44	465	500	485	5.2	\
2500W	76	44	515	550	535	5.2	\
3000W	76	44	565	600	585	5.2	\

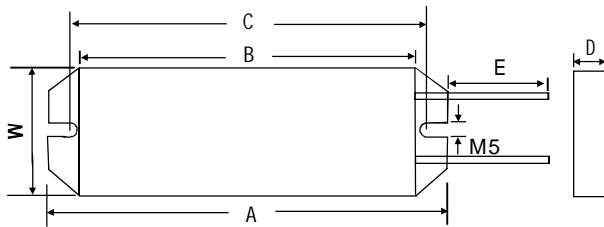
We can do the resistors following customer special requirement.

● Dimensions



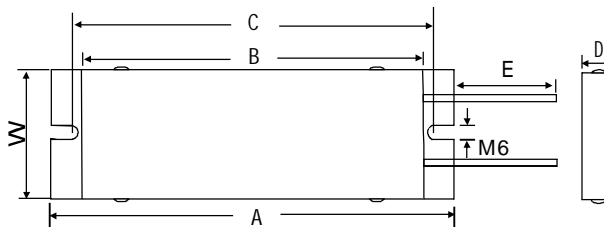
POWER RATING	DIMENSIONS (mm)					RESISTANCE
	L	W	H	B	A	
60W	100	30	13	90	100	0.01Ω-100KΩ
80W	130	42	19	116	100	0.01Ω-100KΩ
100W	130	42	19	116	100	0.01Ω-100KΩ
120W	130	42	19	116	100	0.01Ω-100KΩ
120W	182	42	19	172	100	0.01Ω-100KΩ

Type:EMCB-A 60W-150W



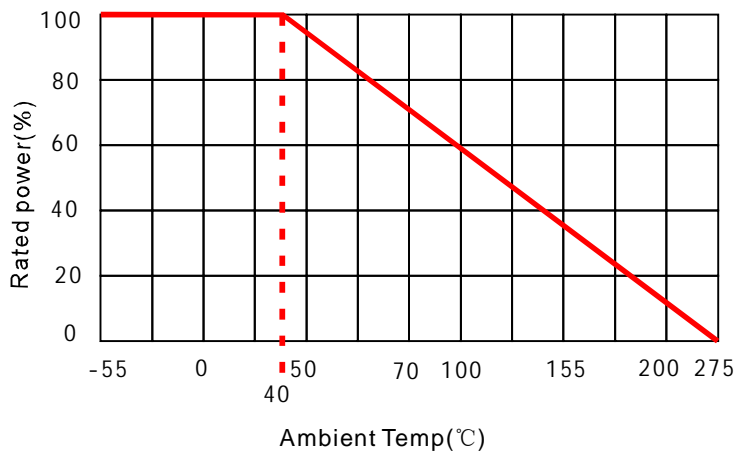
POWER RATING	DIMENSIONS (mm)						RESISTANCE
	A	B	C	D	W	E	
60W	100	70	85	8	45	100	0.1 Ω -10K Ω
60W	120	90	105	9.5	35	100	0.1 Ω -10K Ω
80W	120	95	105	8	45	100	0.1 Ω -10K Ω
100W	120	95	105	8	45	100	0.1 Ω -10K Ω
120W	150	125	135	8	45	100	0.1 Ω -10K Ω
150W	215	190	200	8	45	100	0.1 Ω -10K Ω
200W	265	240	250	8/12	45/40	100	0.1 Ω -10K Ω

Type:EMCB-B 200W-8000W



NOTE: 1. Max rating is 8000W
2. Above 200W, we can follow customer special requirement

● Derating



● Performance Specifications

Test item	Test condition	Specifications
Resistance tolerance	JIS-C-5202 5-1	Resistance Nominal Tolerance $1 \leq R < 10 \pm 5\%$ (J) $\pm 10\%$ (K)
Temperature coefficient	JIS-C-5202 5-2	± 250 PPM/°C Max
Power rating load	JIS-C-5202 5-4 40°C, power rating 1H	$\Delta R \leq \pm(1\%+0.1\Omega)$ Surface temperature up $\leq 350^\circ\text{C}$ MAX
Short-term overload	JIS-C-5202 5-5 500% rated power 5seconds	Free of appearance or structural irregularity $\Delta R \leq \pm(2\%+0.1\Omega)$
Insulation resistance	JIS-C-5202 5-6 1000V DC	100 MΩ Min
Dielectric withstanding voltage	JIS-C-5202 5-7 2000V DC 1 minute	Free of appearance or structural irregularity $\Delta R/R \leq \pm(0.1\%+0.05\Omega)$
Terminal strength	JIS-C-5202 6-1 ASZ 8kg 30s ASCB / ASC 5kg 10s	Free of appearance or structural irregularity
Resistor strength	JIS-C-5202 6-2 ASZ 30kg 30s ASCB / ASC 10kg 10s	Free of appearance or structural irregularity
Vibration	JIS-C-5202 6-3 1.5mm, 10-50- 10Hz/min X-Y-Z 2hours each	Free of appearance or structural irregularity Surface coating crack $\Delta R \leq \pm(1\%+0.05\Omega)$
Thermal shock	JIS-C-5202 7-3 Room temp 30 minutes ON-55°C 15 minutes OFF	Resistor free of structural irregularity crack of silicon cement surface $\Delta R \leq \pm(2\%+0.1\Omega)$
humidity	JIS-C-5202 7-5 40°C 90%RH 240H	Free of appearance or structural irregularity Surface coating crack $\Delta R/R \leq \pm(3\%+0.1\Omega)$
Load life	JIS-C-5202 7-10 90Min ON-30Minutes OFF 500H	Free of appearance or structural irregularity Discoloration of marking $\Delta R \leq \pm(3\%+0.1\Omega)$

● How to order

EMZ	1000W	50R	J	N
Type	Rated Power (w)	Resistance Value(Ω)	Tolerance(%)	Induction
EMZ 6030	200W-800W	0.01 Ω -100K Ω	B=±0.1%	Non-inductive
6038	200W-800W	0.01 Ω -100K Ω	D=±0.5%	
4020	40W-150W	0.01 Ω -100K Ω	F=±1%	
4026	40W-150W	0.01 Ω -100K Ω	J=±5%	
3020	40W-100W	0.01 Ω -100K Ω	K=±10%	
4012	40W-200W	0.01 Ω -20K Ω		
7045	1000W-3000W	0.01 Ω -20K Ω		
7644	1000W-3000W	0.01 Ω -20K Ω		
EMCB A4508	60W-200W	0.01 Ω -10K Ω		
B	200W-8000W	0.01 Ω -10K Ω		
EMC	60W-120W	0.01 Ω -100K Ω		