

**ROBAUTEC Automation R&D Center – Shenzhen**

# **Aluminum Housed Resistor**

## **Technical Datasheet**

RESPONSIBLE		
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REVISIONS HISTORY		
REVISION	DATE	REASON OF THE MODIFICATION
5.0	05.04.2019	Better Heat Dissipation and Overload Ability

**ROBAUTEC AUTOMATION (HK) LIMITED**  
**SHENZHEN ROBAUTEC MECHATRONICS CO., LTD**



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Products listed in the datasheet are Robautec standard goods, the parameters are for reference only. Please contact sales and marketing department if any questions. We will not inform you if the information of products are changed.





## **ROBAUTEC TODAY**

### **-DYNAMICS THROUGH RESISTANCE**

Creating custom-made solutions for our customers and finding answers to new applications. Flexible production through vertical integration with own sheet metal working. Continuity paired with the confidence that comes with a down-to-earth family-run business have always been the key factors for ROBAUTEC's success, from its beginnings as a small workshop right up to its present status today as one of the advanced power resistor manufacturers. With our sustainable company management, we want to make sure that we continue to fulfil our responsibility to our customers, suppliers and employees.

For us, long-term success is more important than short-term results. It is this that we focus on when we make decisions and investments.

#### ***Variety is our programme.***

ROBAUTEC's product portfolio covers a broad range of power and resistance values, from a few watt to Megawatts. Because of the many different possible individual specifications, our manufacturing process is order-related, from single parts to large-scale production.

#### ***Best quality. Cost-effective***

We can guarantee the highest possible quality based on the effective costs because our entire resistor programme is manufactured at our own production plant. Our employees have years of experience, and many of them are specialists.

## **Aluminum Housed Resistor technical specifications**

### **1. PRODUCT DESCRIPTIONS**

Aluminum Housed Resistor are high protection class resistor superior to conventional ceramic-skeleton resistor in terms of weatherproof, oscillation-resistant and safety and is widely applied to electrical circuits that has high adaptability boad ambient such as power supply, inverter and servo system and has high adaptability to bad ambient operating conditions .



The RXLG series resistors with optional integrated thermal switch from medium power range of ALUMINIUM HOUSED COMPACT BRAKE RESISTORS are electrically insulated and with small dimensions. They can easily be fitted into compact constructions and are especially designed to endure high pulse loads in industrial drive systems.

## 2. PRODUCT FEATURES

- 1).High IP class of IP33,IP55,IP65 or as required;
- 2).High pulse load and high vibration capability;
- 3).Compact structure,and cool surface;
- 4).No live parts outside;
- 5).Low noise level;
- 6).Low thermal drift;
- 7).Terminals suitable for soldering or bolt connection with high temperature.

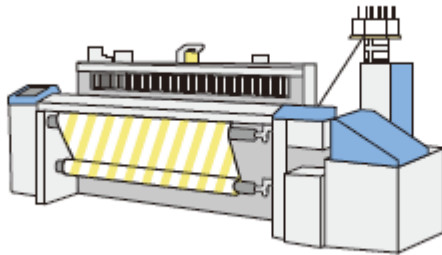
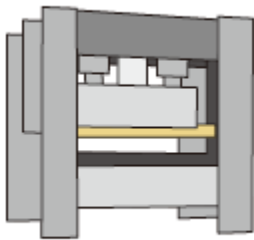
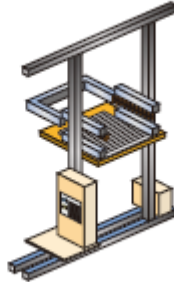
## 3. MATERIAL SPECIFICATIONS

1) Element:	OCr25AL5 or Copper-nickel; Good corrosion resistance, heat resistance, low temperature strength.
2). Core	Ceramic tubar
3). Enclosure	Aluminum Alloy, sprayed high temperature anti-corrosion paint, zinc-plated.
4). Standard terminals	Wires / Copper / Copper bars
5). Part making	Part number, value, dated code, MRC



## 4. APPLICATIONS

- 1).Dynamic braking;
- 2).Motor Control;
- 3).Load bank testing;
- 4).VFD/Servodrives;
- 5).Crane, hoist & Winch;
- 6).Conveyor;
- 7).Lift & Elevator;
- 8). Industrial robots;
- 9). CNC Machines;
- 10). Packing machine and Injection Molding Machine



## 5. TECHNICAL SPECIFICATIONS

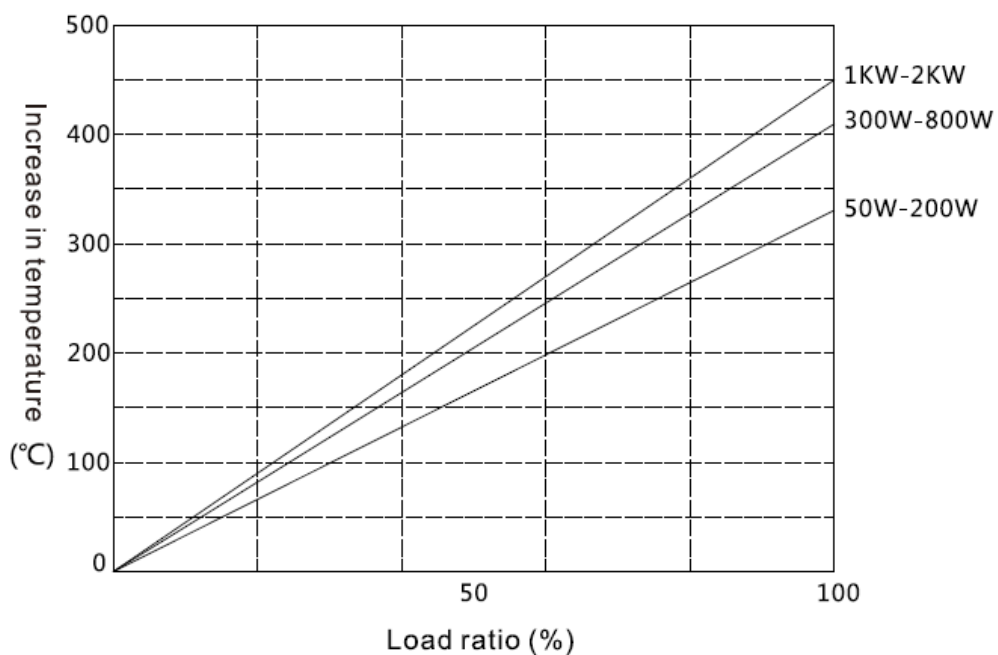
1). Power Range	60W ~ 6000W per unit ( up to 10kW on request.)
2). Voltage Range	<DC1000V, <AC1200V
3). Resistance Value Range	1ohm – 10kohm
4). Dielectric Strength	AC3.5KV @50HZ 5S
5). IP Class	IP33 / IP55
6). Temperature Coefficient	Less than 400ppm/ degree C
7). Certifitcate	CE Marks
8). Technical Standards	GB8898-2011
9). Vibration	1.5g



## 6. ELECTRICAL SCHEMATIC

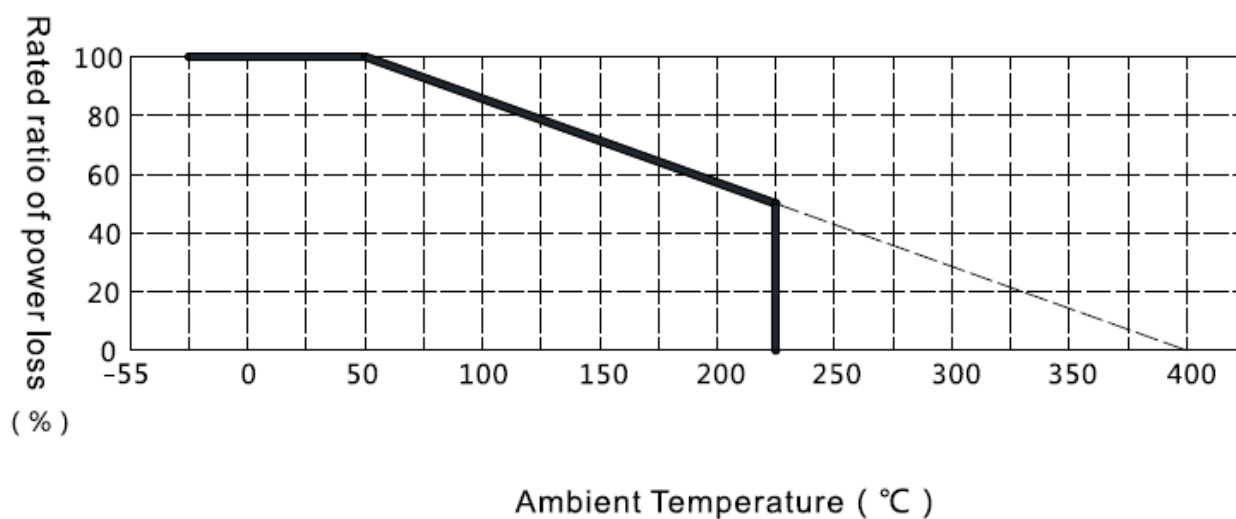


## 7. SURFACE TEMPERATURE RISE





## 8. DERATING CURVE



## 9. SELECTION TABLE

Product Series	Power Rating (watt)	Pic. No.	Dimension (mm)					Weight (kg)	Resistance Range (ohm)	Connection Type	Lead length (mm)
			A	B	C	D	E				
RXLG	60	A	110	95	40	20	5	0.15	1-1kΩ	High temperature resistant Cable	300mm -3000mm x2cables (optional)
RXLG	80		110	95	40	20	5	0.15	1-1kΩ		
RXLG	100		140	125	40	20	5	0.19	1-1kΩ		
RXLG	120		140	125	40	20	5	0.19	1-1kΩ		
RXLG	150		180	165	40	20	5	0.22	1-1kΩ		
RXLG	200	A/B	170	160	60	30	5	0.4	1-1kΩ		
RXLG	300		220	210	60	30	5	0.5	1-1kΩ		
RXLG	400		245	230	60	30	5	0.6	1-1kΩ		
RXLG	500		265	267	60	30	5	0.7	1-1kΩ		
RXLG	600		285	267	60	30	5	0.8	1-1kΩ		
RXLG	800		335	320	60	30	5	1.0	1-1kΩ		



RXLG	1000		400	390	60	30	5	1.2	1-1k $\Omega$		
RXLG	1200		400	390	60	30	5	1.4	1-1k $\Omega$		
RXLG	1500	C	400	390	107	50	5	3.3	1-10k $\Omega$	Copper busbar or wires	30mm
RXLG	2000		450	440	107	50	5	3.8	1-10k $\Omega$		
RXLG	2500		450	470	107	50	5	4.2	1-10k $\Omega$		
RXLG	3000		500	534	107	50	5	5.2	1-10k $\Omega$		
RXLG	3500		500	584	107	50	5	5.4	1-10k $\Omega$		
RXLG	4000		550	634	107	50	5	5.9	1-10k $\Omega$		
RXLG	5000	C/D	600	680	107	50	5	6.3	1-10k $\Omega$	Copper busbar or wires	30mm
RXLG	5500		600	680	107	50	5	6.5	1-10k $\Omega$		
RXLG	6000		700	680	107	50	5	6.7	1-10k $\Omega$		

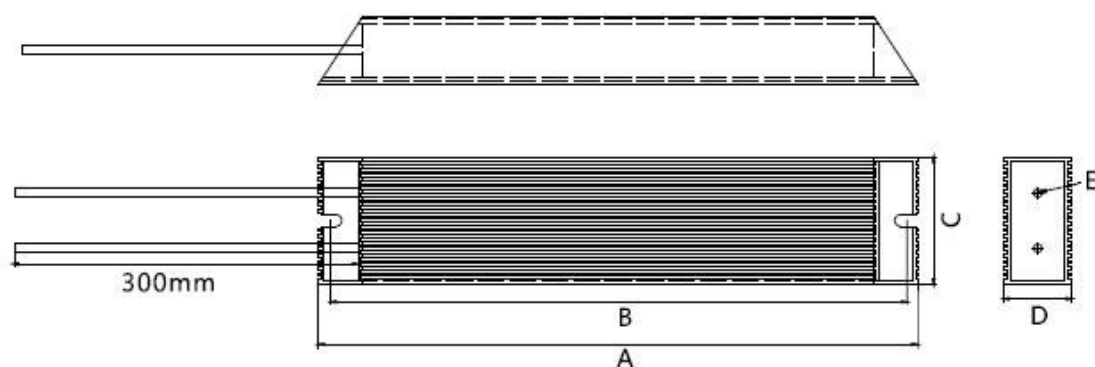
Note:

ROHS request shall be noted in order. Resistance Tolerance is less than 5% and others on request.

Power over 8kW for single unit, please call factory for customized projects.

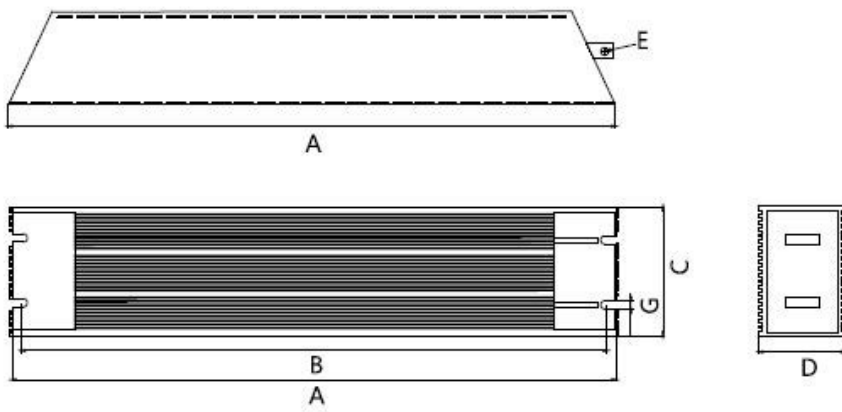
RBT-RXLG-(V-H)-XW/YRJ lable numbering rules, V means Vertical Mounting,H means Horizontal Mounting.

## 10. PRODUCT STRUCTURE

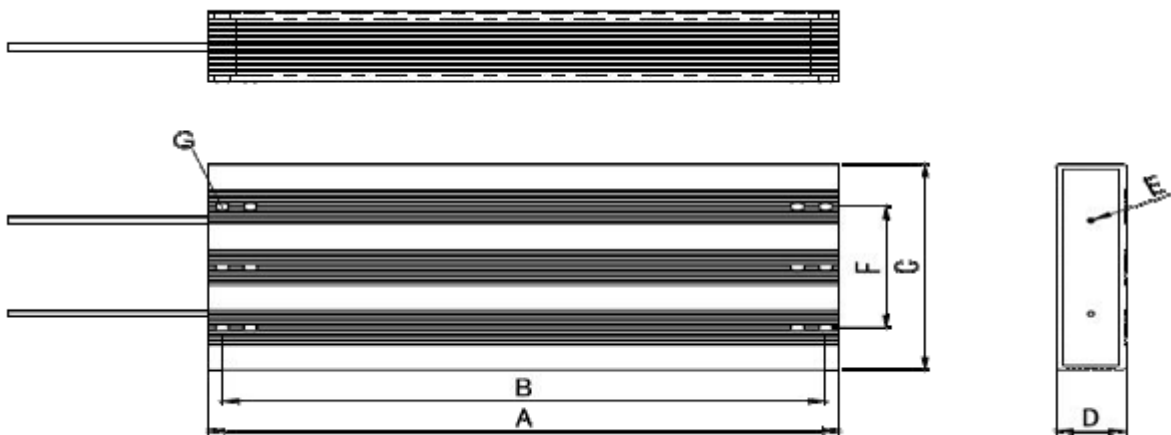


**Picture A**

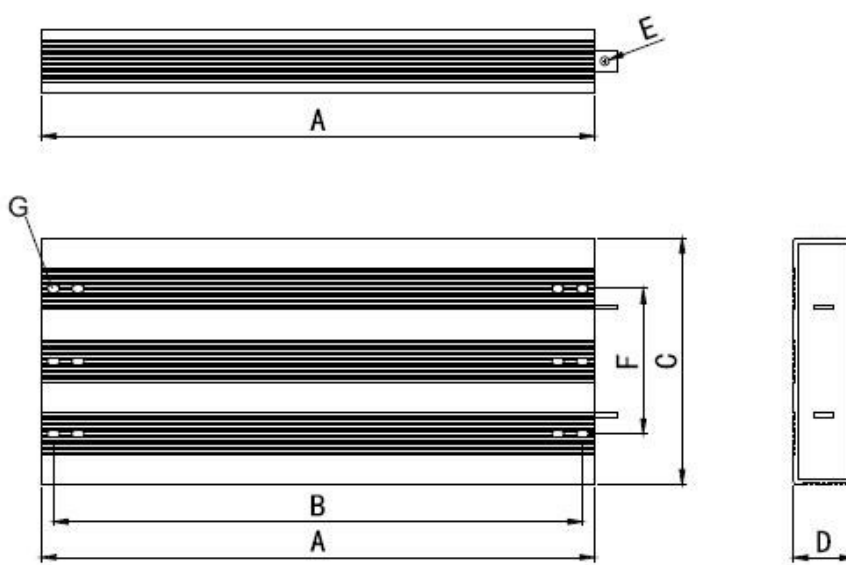




Picture B



Picture C



Picture D



## 11. INSTALLATION GUIDANCE

- 1). Check the outlook of the resistors, see if there is any damage;
- 2). Connect the terminals with the inverter DC bus lines.



## 12. TECHNICAL STANDARDS

- Load bank anti-corrosion: acid washing, phosphorization, plastic coating, surface must be smooth, pits and scratch not allowed.
- Inform below content at obvious part: Product name, model, manufacturer, product code, production date etc. All resistors should have only permanent identification code for trace in future.
- GB1234-95 高电阻电热合金.
- GB4208-2008 外壳防护等级
- GB 50150-2006—《电气装置安装工程电气设备交接试验标准》

### **Recommended spares**

Necessary spares to be considered for a period of 3 years including cable terminals, thermal switchgear etc.

Ensure the acceptance of equipment, installation, operation and maintenance, All documents and information we provide will meet customer system maintenance and further development, expansion needs. We will provide all technical documentation to customer requirements.





### Contact us

Reprent. Company	Service Area	Engineer Contact
Hong Kong, China	Asia, Europe, Australia.	Chuck Ryan
Series Name	Reference Model Number	Updated Date
Aluminum housed resistor	RBT-RXLG-(V-H)-XW/YR	January 15 <sup>th</sup> ,2019
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