

规格承认书

SPECIFICATION FOR APPROVAL

客户 CUSTOMER : _____

品名 PRODUCT : 梯形铝壳电阻器系列

规格 TYPE : TRA5W-2000W

客户承认印
CUSTOMER APPROVED广东翔胜电子科技有限公司
Guang Dong VICO Electronic Technology Co.,Ltd地址：广东省东莞市大朗镇莞樟路大朗段746号301室
电话：0769--86732158 传真：0769--86666888

一式二份 翔胜一份 客户一份

出图	业务	审核	核准
DRAWING	SALES	AUDITING	APPROVED

翔胜电子技术品质部

编号：TRA2021

日期：2021年

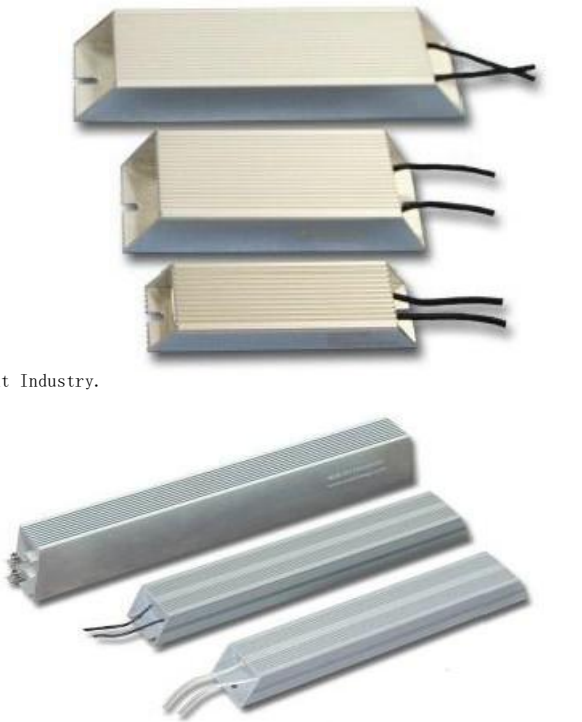
无卤
(F,Cl,Br,I)

CEMENT

Coated High Power Ceramic Tube Resistors 被漆功率瓷管电阻器 CEMENT(5W.10W.25W.2000W)

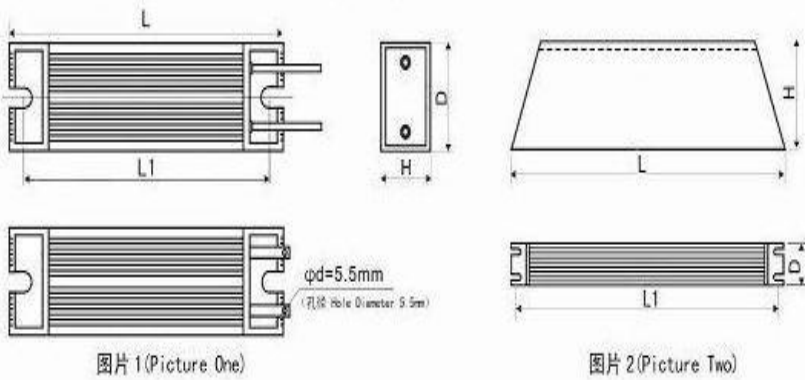
FEATURES 特点

- 1 Aluminum crust surface with good performance in heat radiation,suitable for cooling plate installation, can be used in the atrocious environment
金属铝壳包封，散热性能好、适合散热板安装，可长期在恶劣环境下使用
- 2 Small size,high power load.
体积小、功率负荷大
- 3.High insulating capacity,encapsulation by non-flame inorganic Material, good performance in vibration.
绝缘性高，采用阻燃无机材料一体化安装，抗振性好
- 4 Multi connection form will be easily to fix.
多种接线方式，便于安装
- 5 Widely used in Power supply, Transducer, Elevator,Arena audio and high requirement equipment Industry.
广泛用于电源、变频器、电梯、舞台音响及高端设备行业
- 6 Resistance tolerance: $\pm 1\%$ 、 $\pm 2\%$ 、 $\pm 5\%$ 、 $\pm 10\%$.
精度范围： $\pm 1\%$ 、 $\pm 2\%$ 、 $\pm 5\%$ 、 $\pm 10\%$.

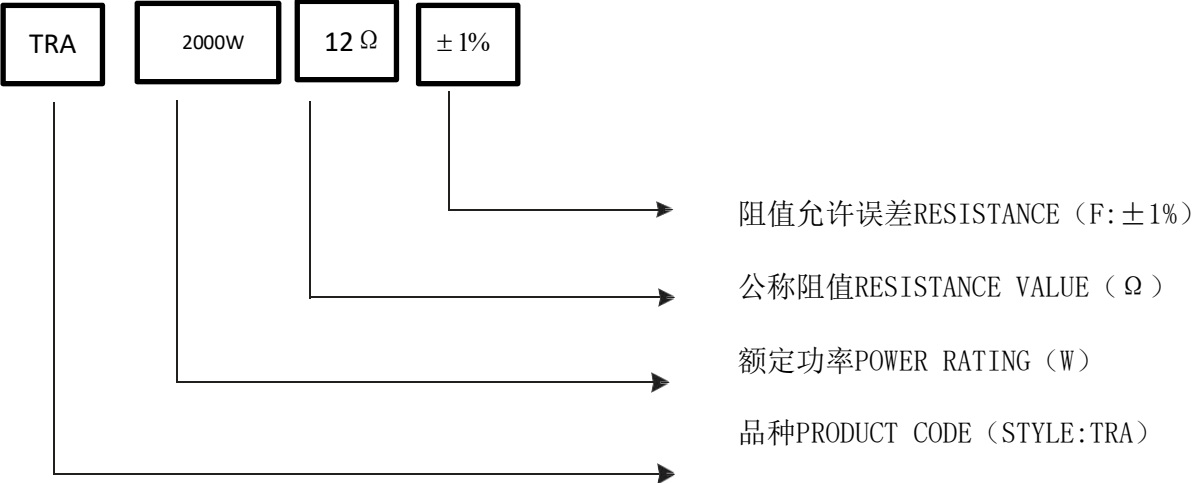


CONSTRUCTION 结构图

- A Core: Ceramic rod(wire wound)/Magnet rod(power film)
电阻芯：陶瓷棒/磁棒
- B Element:Copper-nickel alloy or nikel-chromiumalloy depending on resistance Value
电阻丝：铜镍合金或镍铬合金，依据阻值大小而定
- C Tail: High temperature cables
引线：高温线
- D Shell: Aluminum Shell
外壳：铝外壳
- E Filling: Quartz, epoxy
填充物：石英砂，环氧树脂



TYPE DESIGNATION 品名构成



NOTE1注解: RATED VOLTAGE 额定电压 = $\sqrt{\text{POWER RATING 额定功率} \times \text{RESISTANCE VALUE 公称阻值}}$

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Coated High Power Ceramic Tube Resistors 被漆功率瓷管电阻器

CHARACTERISTICS 特性项目	SPECIFICATIONS 规格值	TEST METHODS JIS C 5202 测试方法 JIS C 5202标准	
DC RESISTANCE 直流阻抗值	F (±1%)	RESISTANCE VALUE TEST AT ROOM TEMPERATURE 25℃ 阻值测试在室温25℃	
T. C. R温度系数	±300PPM/℃	R2-R1 X 10 ⁻⁶ PPM/℃) R1(T2-T1) R1: RESISTANCE VALUE AT ROOM TEMPERATURE(T1) 常温 (T1) 阻抗值 R2: RESISTANCE VALUE AT ROOM TEMPERATURE +100℃ (T2) 常温+100℃阻抗值	
LOAD LIFE 负荷寿命	RESISTANCE CHANGE RATE IS ± (5%+0.05 Ω) MAX WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻坑值变化率 (5%±0.05 Ω) 以内, 电阻器不可有损伤	RESISTANCE CHANGE AFTER 1000H(1.5H ON,0.5H OFF)AT RATED VOLTAGE IN A HUMIDITY CHAMBER CONTROLLED AT40+/-2℃ AND 90-95% RELATIVE HUMIDITY.(when the test voltage exceeds the working voltage,considerusing the working voltage) 温度40+/-2℃, 相对湿度90-95%于恒温恒湿箱中, 加额定直流电压测试1.5小时停止0.5小时, 连续1000小时。(当实验电压超过最高使用电压, 采用最高使用电压)	
	RESISTANCE CHANGE RATE IS ± (5%+0.05 Ω) MAX WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻坑值变化率 (5%±0.05 Ω) 以内, 电阻器不可有损伤	RESISTANCE CHANGE AFTER 1000H OPERATING AT RATED VOLTAGE WITH DUTY CYCLE OF 1.5H ON 0.5H OFF AT 70℃±2℃(when the test voltage exceeds the working voltage,considerusing the working voltage) 温度70+/-2℃, 加额定直流电压测试1.5小时停止0.5小时, 连续1000小时 (当实验电压超过最高使用电压时, 采用最高使用电压)	
SHORT TIME OVER LOAD 短时间过负荷	± (2%+0.05 Ω)	According 10 times rated power to account the voltage or max.overload voltage(get the lower)for 5 seconds 施加10倍额定功率的电压或最高负荷电压 (取最小者) 5秒	
DIELEGTRIC WITHSTANDING VOLTAGE 耐电压	RESISTANCE CHANGE RATE± (1%+0.05 Ω)WITH NO EVIDENCE OF RESISTOR DAMAGE 阻抗值变化率± (1%+0.05 Ω)电阻器不可有损伤	ELECTRIC RESISTANCE BOTH ENDS THE CONJUNCTION LINE PUT ON THE METALS V TYPE THE SLOT, ACCORDING TO THE ELECTRIC VOLTAGE PROVISION OF THE CHARACTERISTIC WATCH 60 SECONDS INFLICTION 电阻两端导线置于金属V型槽上, 依特性表之电压规定施加60秒	
PULSE OVER LOAD 断续过负荷	RESISTANCE CHANGE RATE IS ± (2%+0.05 Ω) MAX, WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻坑值变化率 (2%±0.05 Ω) 以内, 电阻器不可有损伤	RESISTANCE CHANGE AFTER 10000C(1SEC ON,25SEC OFF)AT 4T RATED VOLTAGE (AC)when the test voltage exceeds the maximam overload,consider using the maxmum overload voltage) 额定电压*4倍 (交流电压), 测试1秒停止25秒, 测试10000次。(当实验电压超过最高过负荷电压, 采用最高过负荷电压)	
TEMPERATURE CYCLING 温度循环	RESISTANCE CHANGE RATE IS ± (1%+0.05 Ω) MAX, WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻坑值变化率 (1%±0.05 Ω) 以内, 电阻器不可有损伤	STEP 步骤、	TEMPERATURE 温度
		1	-55℃±2℃
		2	25℃±2℃
		3	275℃±2℃
		4	25℃±2℃
HUMIDITY 耐湿性	RESISTANCE CHANGE RATE IS ± (1%+0.05 Ω) MAX, WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻坑值变化率 (1%±0.05 Ω) 以内, 电阻器不可有损伤	TIME(MIN)放置时间	
		30	
		10-15	
		30	
		10-15	
RESISTANCE TO SOLDERING HEAT 耐热性	RESISTANCE CHANGE RATE IS ± (1%+0.05 Ω) MAX, WITH NO EVIDENCE OF RESISTOR DAMAGE. 阻坑值变化率 (1%±0.05 Ω) 以内, 电阻器不可有损伤	TEMPERATURE	DIP TIME
		350℃±10℃	3±0.5 SEC
		260℃±5℃	10±1.0 SEC
LNCOMBUSTIBJLITY 不燃性	Do not have obvious flame 不可有明显火焰	EX5.10.16Times V 5min 按5.10.16倍额定功率加交流负荷5分钟	
INSULATION RESISTANCE 绝缘阻抗	>1000M Ω	DC 500V 直流500V	
Impact resistance 耐冲击	± (2%+0.05 Ω)	100g, 6ms, ring 10 times 100g, 6ms, 循环10次	
Lead end strength 引出端强度	电阻外形, 内部结构无明显损伤	Accroding to GB/T 5729 4.16:There is no damage form the resistor, under 20N pulling force, with 30s 按GB/T 5729 4.16 条件, 施加20N 的拉力, 时间30 秒, 电阻外形、内部结构无明显损伤	

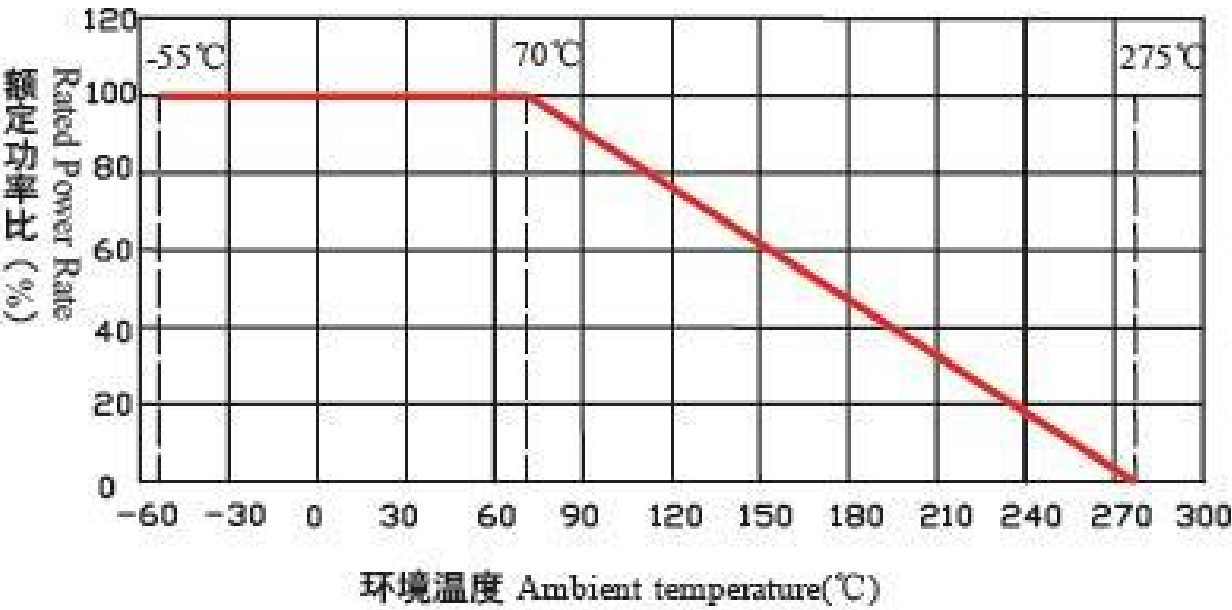
C E M E

Coated High Power Ceramic Tube Resistors 被漆功率瓷管电阻器

POWER CHARACTERISTIC 电力特性

POWER PATED 额定功率 (W)	40	60	80	100	120	150	200	250	300	350	400	500	600	800	1000	1200	1500	1800	2000
ITEM 项目																			
MAX WORKING VOLTAGE 最高使用电压	300	400	500	600	700	900	1000	1000	1500	1500	1600	1600	1700	1800	2000	2100	2200	2300	2400
MAX OVERLOAD VOLTAGE 最高过负荷电压	300	400	500	600	700	900	1000	1000	1500	1500	1600	1600	1700	1800	2000	2100	2200	2300	2400
MAX INTERMITTENCE OVER LOAD VOLTAGE 最高断续过负荷	450	600	450	900	1000	1300	1450	1450	2200	2200	2300	2300	2400	2550	2850	3000	3100	3300	3500
ELECTRIC WITHSTANDING VOLTAGE 绝缘耐电压	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	2000	2000	2000	2000	2000	2000	2000	2000
RESISTANCE TOLERANCE 阻抗误差值	F(±1%) G(±2%) J(±5%) K(±10%)																		
RANGE (OHM) 阻抗值范围	MIN	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω
	MAX	7K	9K	22K	31K	34K	40K	46K	46K	72K	72K	79K	100K	278K	329K	293K	343K	378K	472K

DERATING CURVE 降功率曲线



NOTE 注: 1. RATED AMBIENT TEMPERATURE: 70°C
额定周围温度: 70°C.

2. OPERATING TEMPERATURE RANGE: -55°C~+155°C
使用温度范围: -55°C~+155°C.

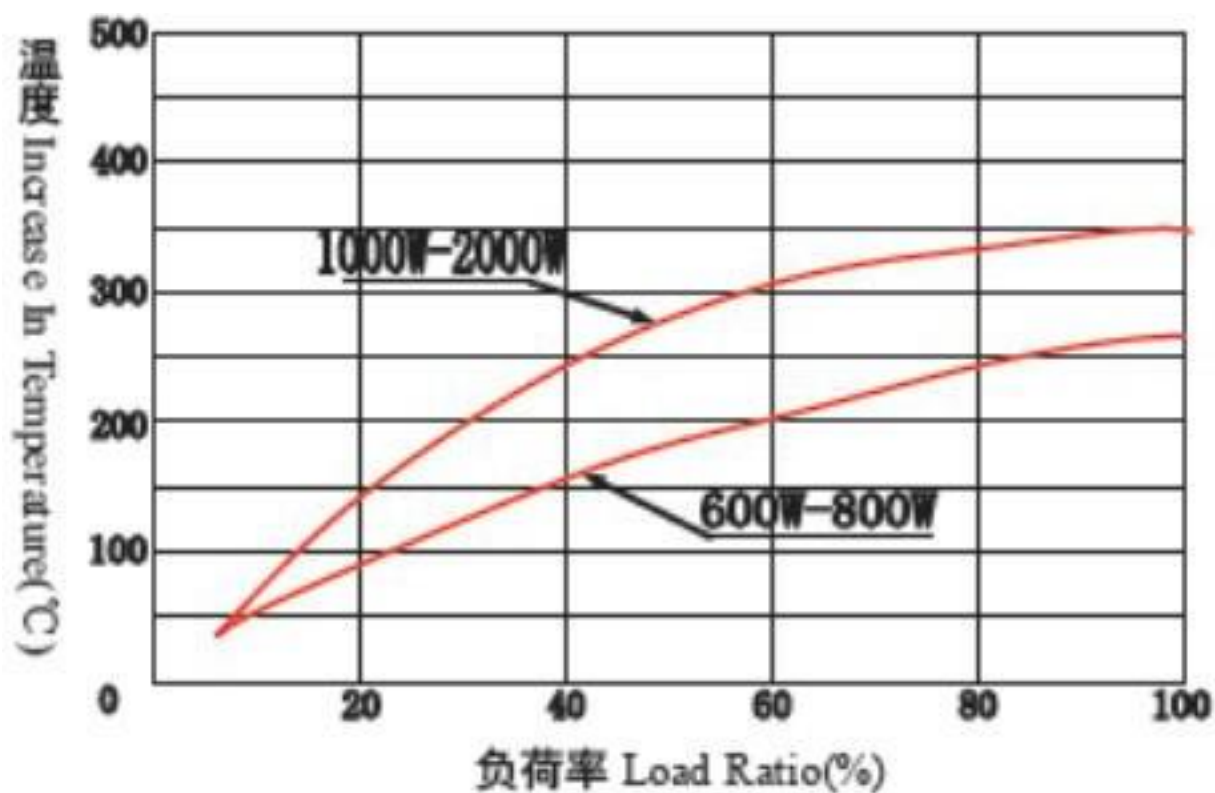
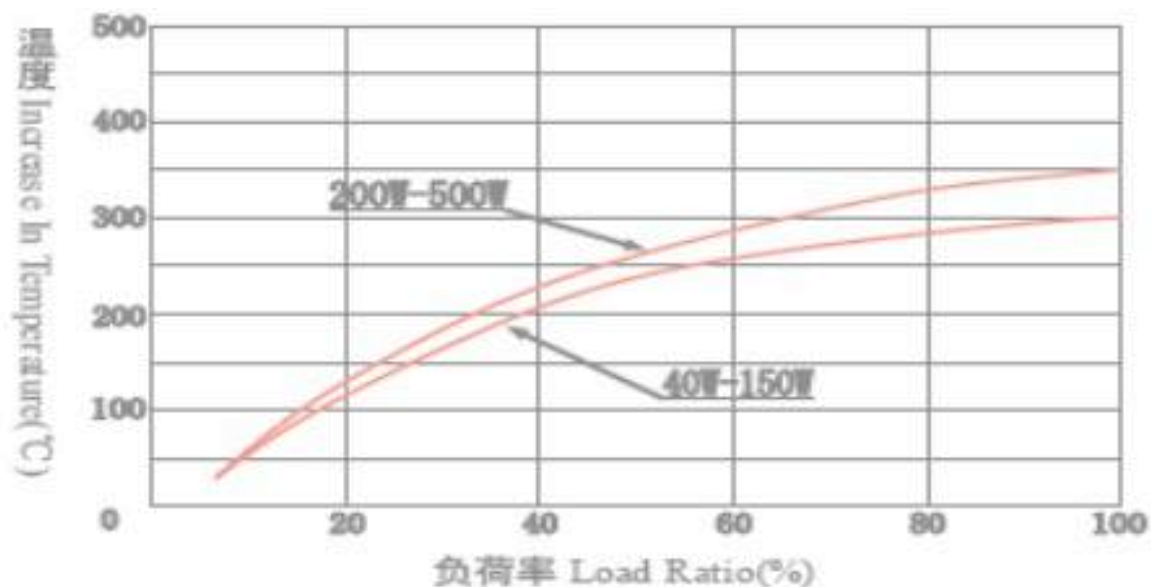
3. FOR RESISTORS OPERATED IN AMBIENT TEMPERATURE OVER 70°C, POWER RATING SHALL BE DERATED IN ACCORDANCE WITH THE FIGURE.

周围温度 70°C 以上使用时, 根据降功率曲线将额定功率.

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SURFACE TEMPERATURE RISE 表面温升

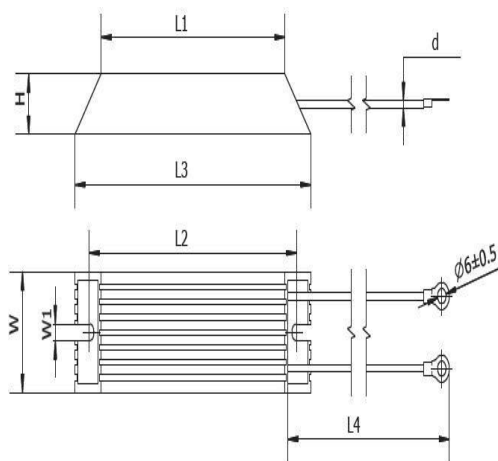


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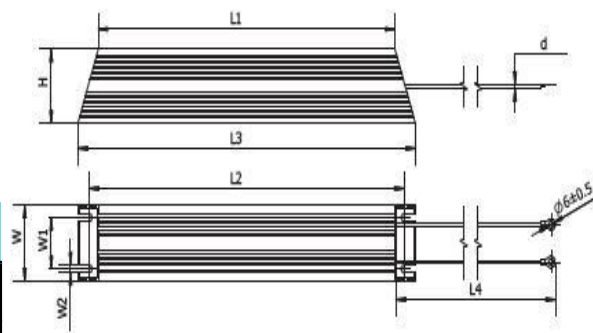
Coated High Power Ceramic Tube Resistors 被漆功率瓷管电阻器

TRA

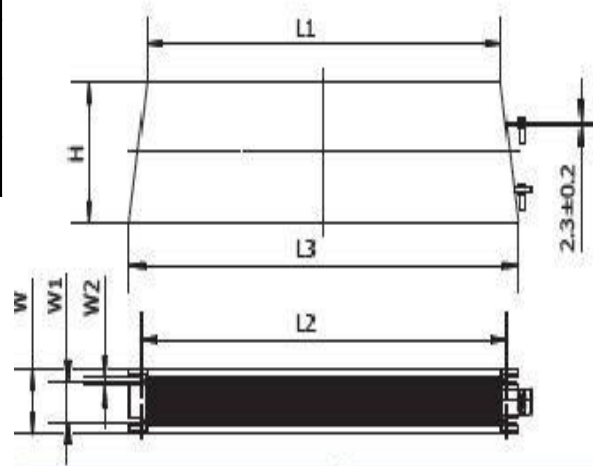
TYPE 品名	DIMENSIONS (MM) 尺寸							
	L1±1	L2±1	L3±1	L4±10	H±1	W±1	W1±0.5	d±0.2
40W	75	90	100	200	18	30	5.6	2.51
60W	84	98	115	200	18	30	5.6	2.51
80W	109	123	140	200	20	40	5.6	3.44
100W	134	148	165	200	20	40	5.6	3.44
120W	155	170	185	200	20	40	5.6	3.44
150W	184	198	215	200	20	40	5.6	3.44
200W	119	147	165	300	30	60	5.6	3.44
250W	119	147	165	300	30	60	5.6	3.44
300W	184	212	230	300	30	60	5.6	3.44
350W	184	212	230	300	30	60	5.6	3.44
400W	219	247	265	300	30	60	5.6	3.44
500W	289	317	335	300	30	60	5.6	3.44



600W-800W:



1000W-2000W:



TRB

TYPE 品名	DIMENSIONS (MM) 尺寸								
	L1±1	L2±1	L3±1	L4±10	H±1	W±1	W1±0.5	W2±0.5	d±0.5
600W	313	337	355	300	59	61	41	6	4.0
800W	358	382	400	300	59	61	41	6	4.0
1000W	362	384	400		107	50	30	6	
1200W	412	434	450		107	50	30	6	
1500W	447	469	485		107	50	30	6	
1800W	542	564	580		107	50	30	6	
2000W	560	582	600		107	50	30	6	