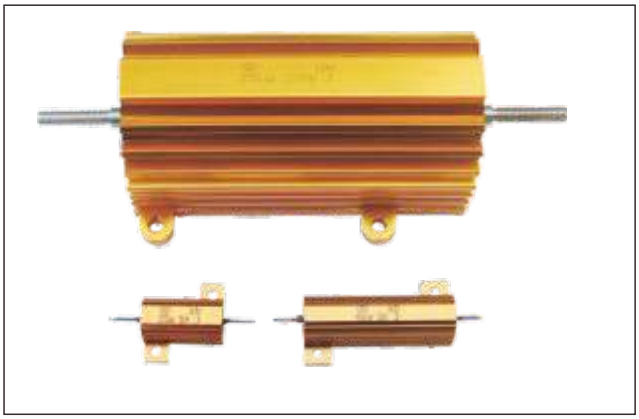
RE系列铝外壳功率线绕电阻器Aluminium encased power wire-wound resistors



特点Features

Ⅰ 功率大且坚固,耐震
High power and rugged, shock-proof
Ⅱ 散热性好
Good heat-sink
Ⅲ 电阻温度系数小,呈直线变化
Low TCR,and good linearity

应用Applications

Ⅰ 适用于大型机械设备 Used in large-size machinery

Ⅱ 负荷测试，电力电源Load test, power supply and electricity

Ⅲ 变频器 Frequency inverter

Ⅳ伺服电机及高要求等恶劣工控环境 Serve motor and other harsh industry environment

材料说明 Material Specifications

Ⅰ.电阻丝：铜镍合金或镍铬合金，依据阻值大小而定

Element:Copper-nickel alloy or nickel-chromium alloy depending on resistance value

Ⅱ.芯料：陶瓷或滑石瓷依据物理尺寸而定 Core:Ceramic,steatite,depending on physical size

Ⅲ.密封材料：硅酮模压塑料Encapsulant:Silico molded materials

Ⅳ.外壳：阳极氧化铝外壳Housing:aluminium with hard anodic coating

Ⅴ.帽盖：不锈钢 End Caps:stainless steel

Ⅵ.引出端子：RE605-RE630是镀锡铜线

Stardard Terminals:Tinned Copperwires on RE605 cmel RE630

MIL规范应用Applicable MIL Specifications

MIL-PRF-18546军用规范涵盖于基板安装功率型铝外壳电阻器。
MIL-PRF-18546 is the military specification Covering aluminum housed, chassis mount, power resistors.

无感电阻 Non-inductive resistance

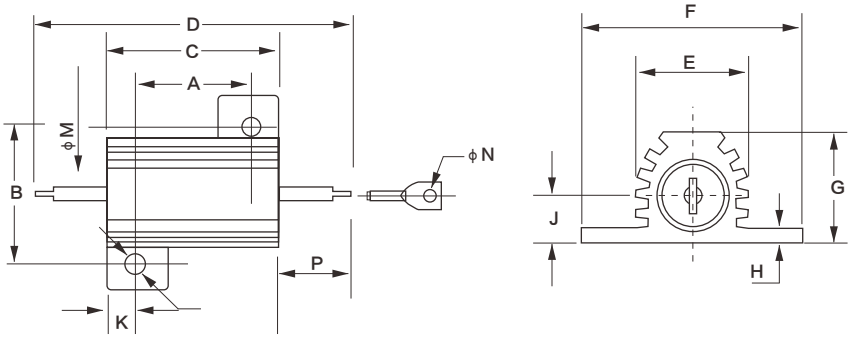
可以通过无感绕制的方法得到具有相同物理和电气特性的产品，并在型号后面加注“N”的方式加以区分

Same physical and electrical characteristics as the normal one are available for non-inductive resistor, also, they are defined by adding another letter N after the model number(RE605N,for example)

参考规格Reference Standards

Q/ATK035-2002

尺寸构造图 Construction(mm)



RE605/610/615/630

型号 Type	外形尺寸 Dimensions(mm)													
	A±0.1	B±0.1	C±0.2	D±1.5	E±0.4	F±0.1	G±0.4	H±0.2	J±0.2	K±0.2	L±0.1	M±0.02	N±0.1	P±0.1
RE605	11.2	12.5	15.2	28.6	8.50	16.4	8.1	1.7	3.8	2.0	2.4	1.5	1.3	6.70
RE610	14.2	15.9	19.0	34.9	10.7	20.3	9.9	1.9	4.2	2.4	2.4	2.0	2.2	7.95
RE615	18.2	19.8	27.0	49.2	14.0	27.4	13.9	1.9	5.9	4.4	3.2	2.0	2.2	11.1
RE630	40.0	21.4	50.0	70.6	16.0	29.0	15.5	2.0	6.6	5.0	3.2	2.0	2.2	10.3

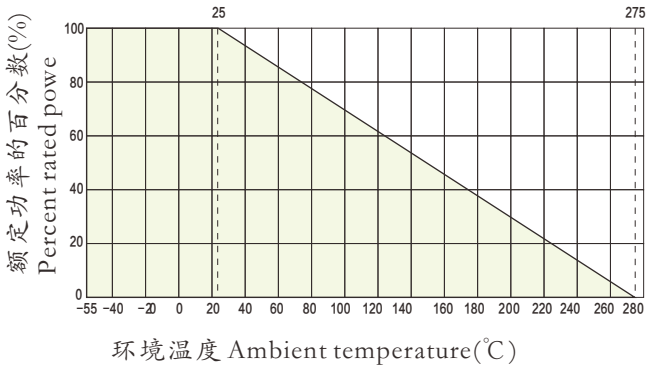
功率、阻值范围与耐电压PowerAnd Resistance etc

型号 Type	MIL-PR F-18546TYPE	额定功率P25℃ Rated power(W)		阻值范围 Resistance Range		
		民用(Civil)	军用(Military)	±0.25%	±0.5%	±1%± 5%,±10 %
RE605	-	7.5(5)		R50~1K2	R10~1K2	R10~3K32
	RE60G		5	-	-	
RE605N	-	7.5(5)		1R0~200R	1R0~860R	1R~1K65
	RE60N		5	-	-	
RE610	-	12.5(10)		R50~2K7	R10~2K7	R10~5K62
	RE65G		10	-	-	
RE610N	-	12.5(10)		1R0~1K2	1R0~1K2	1R0~2KB
	RE65N		10	-	-	
RE615	-	25		R10~3K9	R10~3K9	10R~12K1
	RE70N		20	-	-	
RE615N	-	25		1R0~2K7	1R0~2K7	1R0~6K04
	RE70N		20	-	-	
RE630	-	50		R10~5K6	R10~5K6	10R~39K2
	RE75G		30	-	-	
RE630N	-	50		1R0~3K9	1R0~3K9	1R0~19K6
	RE75N		30	-	-	

注：RE605,610电阻器上标明的是括号内功率，新的结构允许电阻器具有更高功率，但只有客户要求，才能打印更高功率。0.1%或更高阻值精度的非标电阻器可协商定制生产。

NOTE:Figures in parentheses on RE605 and RE610is wattage,same as that value on parts,wattage printed on parts,new construction allows these resisors to be rated at higher wattage but will only be printed with the higher wattage on customer request.Please contact us for the production of non-standard resistors with the higher tolerance or 0.1%.

加热吸收板的降功耗曲线
Derating Curve of Heatsink



额定功率 Rated Power

RE电阻器额定功率下工作须依据下列尺寸安装热吸收板（单位：mm）。

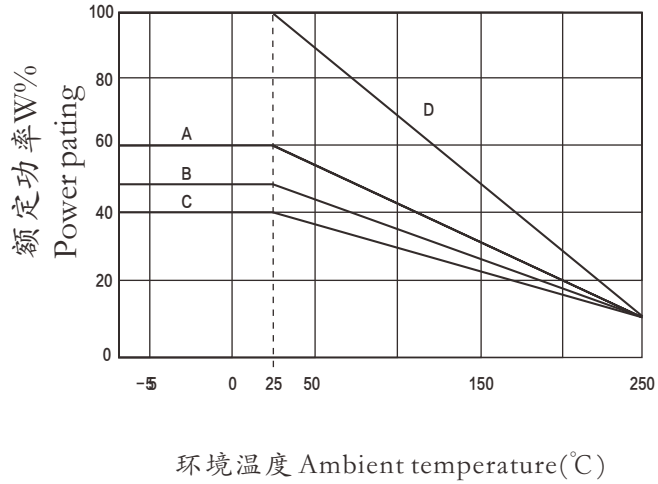
(RE resistor power ratings are to be mounted with the following heat sink):

RE605,610: 102×152×51×1mm(832cm2)

RE615:127×178×51×1mm(1077cm2)

RE630:305×305×1.5mm(1877cm2)

降功耗曲线 Derating Curve



环境温度与降功耗曲线

Ambient Temperature vs Derating Curve

RE电阻器在环境温度大于25℃时所需的降功耗曲线图。

(Derating is required for ambient temperatures above 25,see the following graph.)

A,B,C曲线时适用于没有安装热吸收板的RE电阻器降功耗曲线；

(Curves A,B,C apply to operation of unmounted resistors;)

D曲线是适用于所有安装热吸收板RE电阻器的降功耗曲线。

(Curves D applies to all types mounted with specified heat sink.)

A:RE605,610不安装(unmounted)。

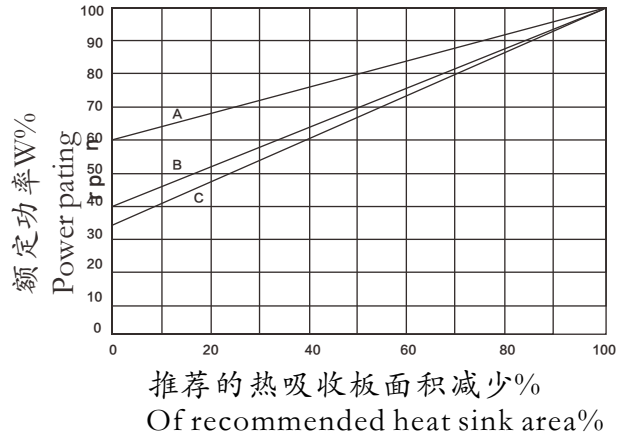
B:RE615,不安装(unmounted)。。

C:RE630不安装(unmounted)。

D:曲线是适用于所有安装热吸收板RE电阻器的降功耗曲线。

(Curves D applies to all types mounted with specified heat sink.)

热吸收板的降功耗曲线
Derating Curve of Heatsink



减少热吸收板的降功功耗曲线

Reduced Heat Sink Derating Curve

当推荐安装的热吸收板面积被减少时，电阻器需要降功耗使用。

(Derating is also required when recommended heat sink area is reduced.)A:RE605,615

B:RE615

C:RE630

特殊改变 Special Modifications

Ⅰ.引出端形状或材料Terminal configurations and materials

Ⅱ.阻值公差 Resistance values and tolerances

Ⅲ.低TCR Low TCR

Ⅳ.外壳外形 Housing contiguration

Ⅴ.安装孔螺纹 Thread of mounting hole

Ⅵ.预处理和其他附加实验Pre-processing and other additional testing

性能 Performance

试验项目 Test Item	单位于UNIT	试验方法 Test Methods
温度系数 T CR	ppm/℃	0.1Ω ~0.99Ω:± 50ppm/℃、 ± 100ppm/℃ ≥1Ω:±20ppm/℃、 ±50 ppm/℃、 ± 100ppm/℃
绝缘电阻Insulation resistance	VAC	对应RE605~RE615为1000VAC 对应RE630为2000VAC
短期过载 Short time overload	-	5倍额定功率，5秒钟 5xreter power for 5s
最大工作电压Max. Working voltage	V	$\sqrt{P*R}$
绝缘电阻Insulation Resistance	Ω	干燥:≥10000MΩ 潮湿试验:≥1000MΩ 10000Megohm:minimum,1000Megohm:minimumafter moisture test
引出端强度Terminal tensile strength	N	RE605,610为22.2N:其余为44.1N 22.2N for Re605and 610.44.1N for all other
可焊性Solderability	-	符合MIL-PRF-18546标准,符合ANSI.J-STD-002标准
温度范围Temperature range	℃	-55/+250

料号编号Ordering Information

例Example:

R E630	25	J	100R0	C2

型号	额定功率	误差值	电阻值	温度系数
R E605 R E610 R E615 R E630	605:7.5W 610:12.5W 615:25W 630:50W	F =±1% G=±2% J =±5% K=±10%	0R100=0.1Ω 1R00=1Ω 10R0=10Ω 100R0=100Ω	C4=±20PPM/℃ C2=±50PPM/℃ C1=±100PPM/℃