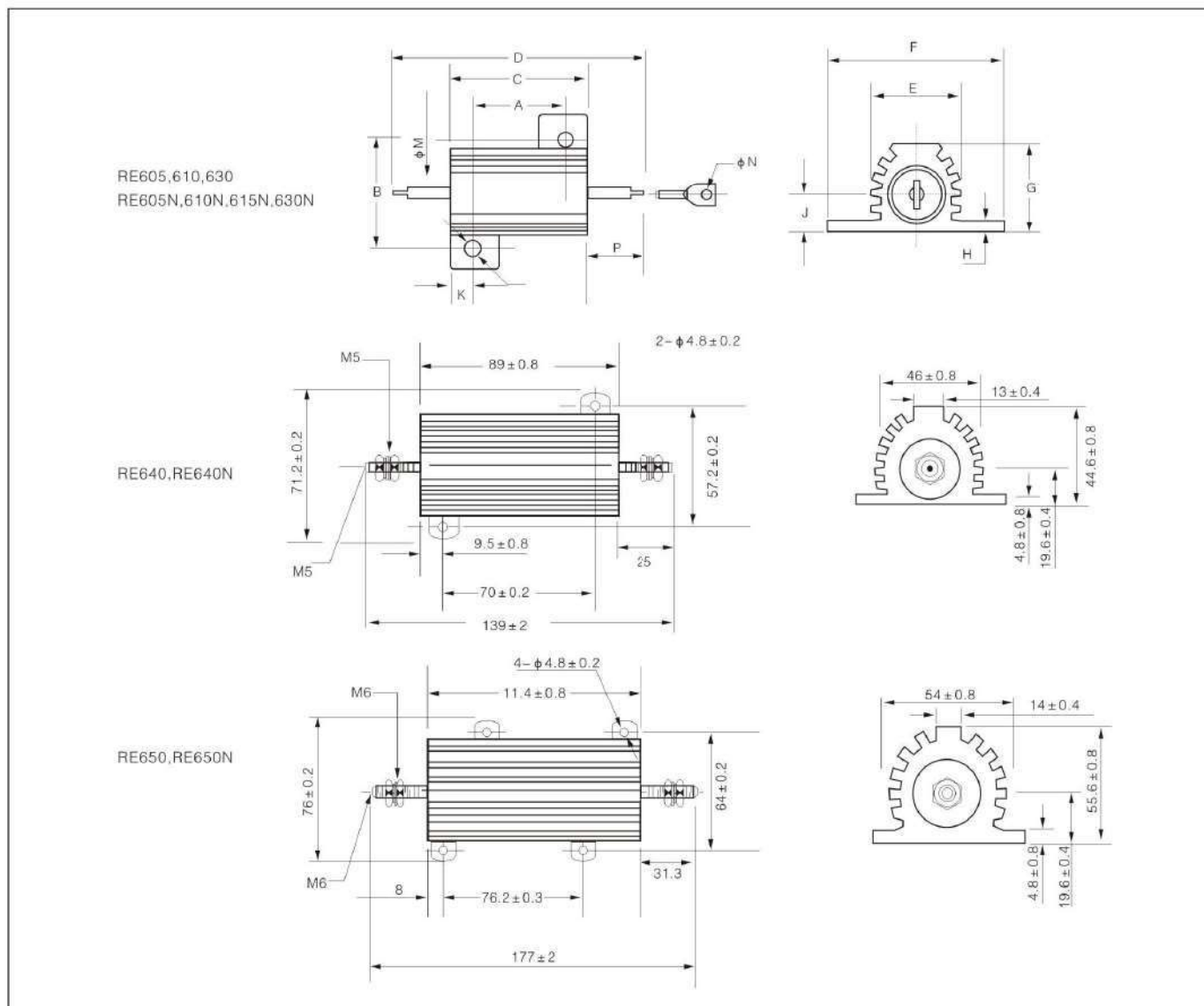


■ Characteristics

- Molded construction for environmental protection
- Complete welded construction
- Meets applicable requirements of Mil-PRF-18546
- Available in non-inductive styles with Aryton Perrywinding for lowest reactive components
- Mounts on chassis to utilize heat-sink effect
- Excellent stability in operation



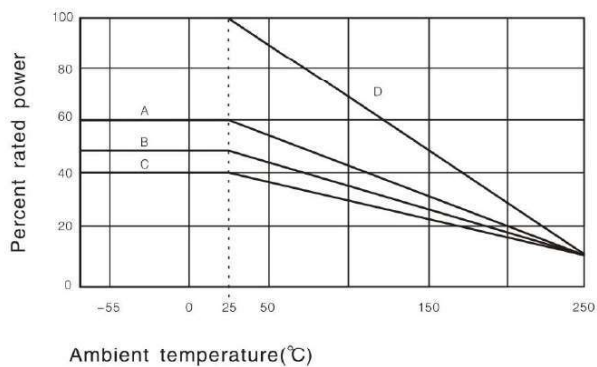
■ Construction(mm)



■ Dimensions(mm)

Type	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±0.8
RE605	11.2	12.5	15.2	28.6	8.5	16.4	8.1	1.7	3.8	2	2.4	1.5	1.3	6.7
RE610	14.2	15.9	19	34.9	10.7	20.3	9.9	1.9	4.2	2.4	2.4	2	2.2	8.0
RE615	18.2	19.8	27	49.2	14	27.4	13.1	1.9	5.9	4.4	3.2	2	2.2	11.1
RE630	40	21.4	50	70.6	16	29	15.5	2.2	6.6	5	3.2	2	2.2	10.3

■ Derating Curve



■ Rated Power

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

RE 7.5/12.5W:102x152x51x1mm

RE 25W:127x178x51x1mm

RE 50W:305x305x1.5mm

RE 100W/250W:305X305X3.2mm

RE 75W:305 × 305 × 1.5mm

RE 150W: 305 × 305 × 3.2mm

RE 300W: 610 × 610 × 3.2mm

■ Ambient Temperature vs Derating Curve

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

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

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

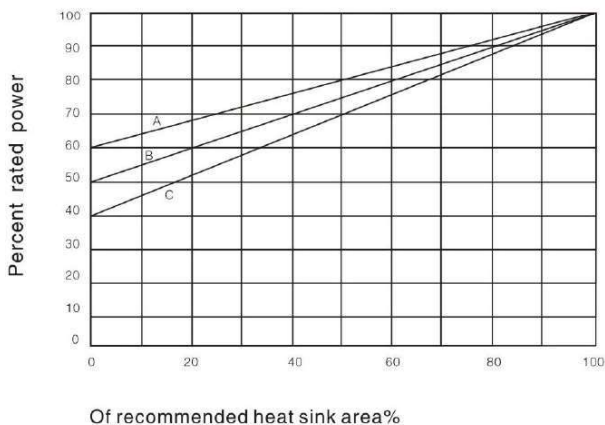
A:RE605,610 unmounted

B:RE615 unmounted

C:RE630,640,650 unmounted

D:All types mounted with recommended aluminum heat sink.

■ Derating Curve of Heatsink



■ Reduced Heat Sink Derating Curve

(Derating is also required when recommended heat sink area is reduced.)A:RE605,610

B:RE615

C:RE630,640,650

■ Technical Specifications

Type	MIL-PR F-18546TYPE	P25°C Rated power(W)		Resistencia Range			Isolation Voltage	Temperature coefficient (10 ⁻⁶ /K)		
		Civil	Military	±0.25%	±0.5%	±1%, ±5%, ±10%				
RE605	- RE60G	7.5(5)	5	R50~1K2 -	R10~1K2 -	R10~3K0	1000V	±20		
RE605N	- RE60N	7.5(5)	5	1R0~200R -	1R0~860R -	1R~1K5				
RE610	- RE65G	12.5(10)	10	R50~2K7 -	R10~2K7 -	R10~4K7				
RE610N	- RE65N	12.5(10)	10	1R0~1K2 -	1R0~1K2 -	1R0~2K0				
RE615	- RE70N	25	20	R10~3K9 -	R10~3K9 -	R1~10K				
RE615N	- RE70N	25	20	1R0~2K7 -	1R0~2K7 -	1R0~4K7				
RE630	- RE75G	50	30	R10~5K6 -	R10~5K6 -	R1~12K			2000V	±50 ±100
RE630N	- RE75N	50	30	1R0~3K9 -	1R0~3K9 -	1R0~5K0				
RE640	- RE77G	100	50	R05~10K -	R5~12K -	R5~18K				
RE640N	- RE77N	100	50	R05~5K -	1R0~5K6 -	1R0~9K0				
RE650	- RE80G	120	60	R10~20K -	R10~20K -	R10~25K	4500V			
RE650N	- RE80N	120	60	1R0~8K2 -	1R0~8K2 -	1R0~12K				

NOTE: Figures in parentheses on RE605 & RE610 is wattage, same as that value on parts, wattage printed on parts, new construction allows these resistors 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%.

■ Material Specifications

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

Core: Ceramic, steatite, depending on physical size

Encapsulant: Silico molded materials

Housing: aluminium with hard anodic coating

End Caps: stainless steel

Standard Terminals: Tinned Copperwires on Rx24 7.5W CMEL

RE 50W Threaded stainless steel terminals in

RE 100W/250W

Part Marking: VTM, Model, Wattage, Value, Tolerance, Date Code

■ Special Modifications

Some modifications are available on customer request the details as follow:

Terminal configurations and materials

Resistance values and tolerances

Low TCR

Housing configuration

Thread of mounting hole

Pre-processing and other additional testing

■ Applicable MIL Specifications

MIL-PRF-18546 is the military specification covering aluminum housed, chassis mount, power resistors.

■ Non-inductive resistance

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)

■ Performance

Test Item	Specifications	Test Methods
Thermal shock	$\Delta R \leq \pm (0.5\%R + 0.05\Omega)$	$P_R / -55^\circ\text{C}$, 15min
Short time overload	$\Delta R \leq \pm (0.5\%R + 0.05\Omega)$	$\sqrt{5RP}$, 5S
Dielectric withstanding voltage	$\Delta R \leq \pm (0.2\%R + 0.05\Omega)$	RE605-RE615 1000V _{AC} RE630 2000V _{AC} RE640-RE650 4500V _{AC}
Moisture proof	$\Delta R \leq \pm (1.0\%R + 0.05\Omega)$	40°C, RH93±3%, 240h
Shock proof	$\Delta R \leq \pm (0.2\%R + 0.05\Omega)$	100g, 6ms, 10cycles
Vibration with high frequency	$\Delta R \leq \pm (0.2\%R + 0.05\Omega)$	10~200HZ, 20g, 6h
Load life	$\Delta R \leq \pm (1.0\%R + 0.05\Omega)$	25°C, P_R , 1000h