REW600 Water Cooled Power Resistors Wirewound, Aluminum Housed

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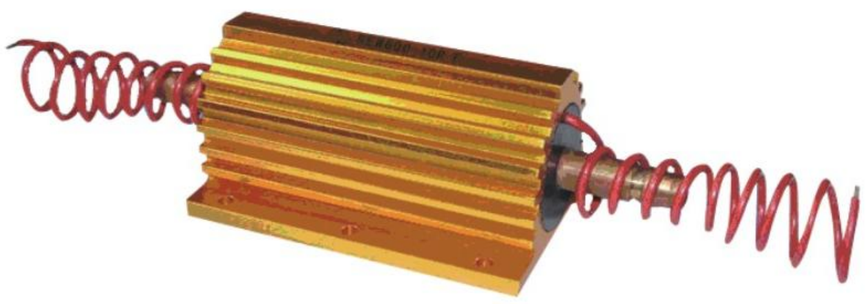
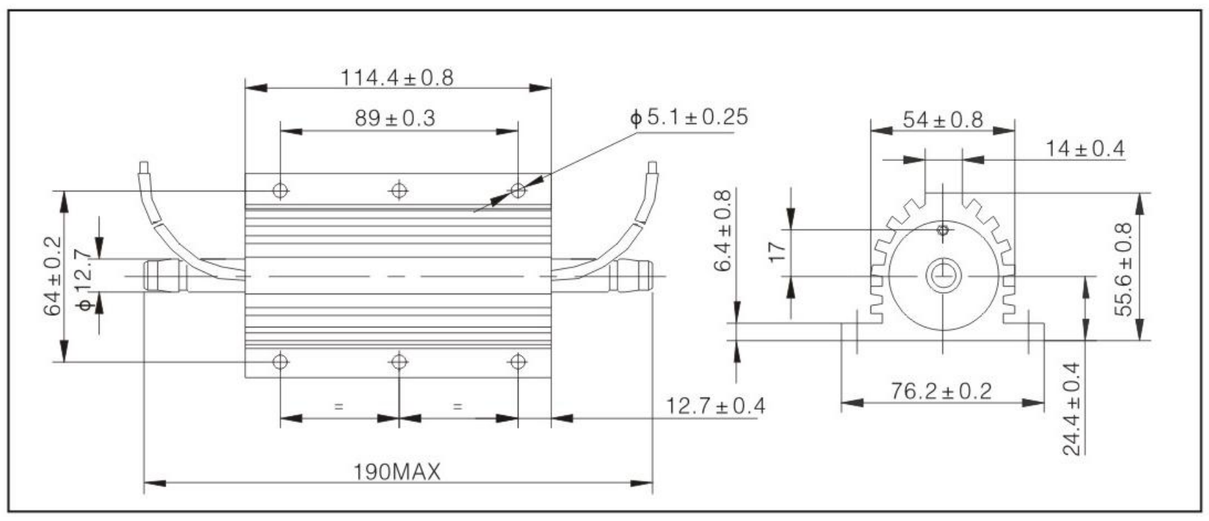


■ Construction(mm)



■ Features

- BALANCED COOLING
- LOW INDUCTION WINDINGS
- MOULDED–IN INSULATED CABLE TERMINATIONS
- HIGH POWER FOR SMALL SIZE

Having been originally designed for use in thyristor protection circuits, the REW600 is most suitable where water cooling is available and space limited. The withdrawal of heat, internally and externally, ensures a low temperature gradient across the unit reducing internal stress. Heat is extracted internally through the cooling pipe and externally by direct mounting onto chassis or additional water cooled heatsink, thereby reducing temperature gradient across internal insulation.

■ Applications

- REW resistors for pulse applications
- Maximum overload
- Inductance values
- Low ohmic values
- Special terminations
- Altemative aluminum housing designs and mountings

■ Reference Standards

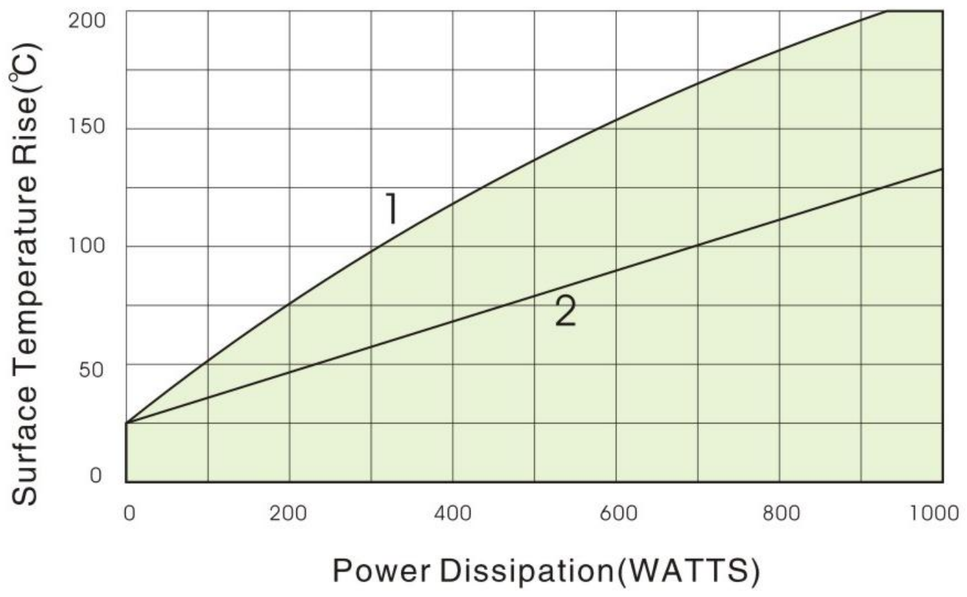
Q/WCD11–2010

1) *Surface temperature measuring point

2) Standard water pipe 12.7 OD .For alternative pipe material and connection arrangements, please consult the factory.

3) Surfaces in contact must be carefully cleaned. The heatsink surface must be have a good flatness In order to improve thermal conductivity, surfaces in contact (aluminum housing, heatsink) should be laid on with a silicone grease.

■ Temperature rise & power dissipation



Curve 1 Resistor mounted on standard air cooled heatsink with water at 25℃ flowing at rate of 2 liters/minute.

Curve 2 Resistor mounted on water cooled heatsink if Rth 0.04℃/w with water at 25℃ flowing at rate of 4 liters/minute.

POWER RATING 600Watts mounted on 3750mm^2 × 3mm Aluminum plate with 25℃ water flowing at rate of 2 litres per minute. See Curve 1.

900Watts mounted on water cooled heatsink of thermal resistance 0.04℃/W with water at 25℃ flowing at rate of 4 litres/minute. See Curve 2.

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■ Electrical specifications

Power Rating On Standard Heat Sink @25℃	Resistance Range Ohms	Limiting Element Voltage DC/AC RMS	Voltage Proof AC Peak	△R%Stability △R% PER 1000HRS	Typical Surface Temperature Rise ℃/W Standard Heat Sink Mounted	Standard Heat Sink (Aluminum) RTH
600W	R1~50K	2200V	3000V	3%	0.19℃/W	0.04℃/W

■ Performance

Test Item	
Tolerance	Standard J(± 5%),please consult Vitrohm for closer tolerances
Temperature Coefficients typical values	Below 1R 100(10^{-6}/K),For lower TC's please consult the factory
Insulation resistance(Dry)	⩾10000MΩ
Power dissipation high ambient temperature	Dissipation derates linearly to zero at 200℃.
Low inductive(NREW600)	Specify by adding N before the REW code e.g. NREW. Max value for NREW600 is 12K5 ohms.
Insulation resistance(Dry)	⩾10000MΩ
Construction	Water pipe & wound former is encapsulated in an aluminum housing ensuring good humidity seal and a high level of voltage protection.
Water pipe	Copper–other materials available on request.
Core	High Alumina Ceramic with high thermal conductivity and capable of withstanding severe thermal shock. It’s ground finish ensures maximum contact with the resistive element for rapid heat transfer.
Element	Copper nickel alloy or nickel chrome alloy depending on ohmic value.
End caps	Stainless steel.
Encapsulant	High temperature moulding compound
Housing	Anodised aluminum
Terminals	Insulated flexible cable. Maximum length 610mm each end.

■ How To Order

Example

N	REW	600W	2R2	J
Low Induction Winding	Series	Watts Heat Sink Mounted	Nominal Value	Tolerance
N	REW	600W	2R2	J

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