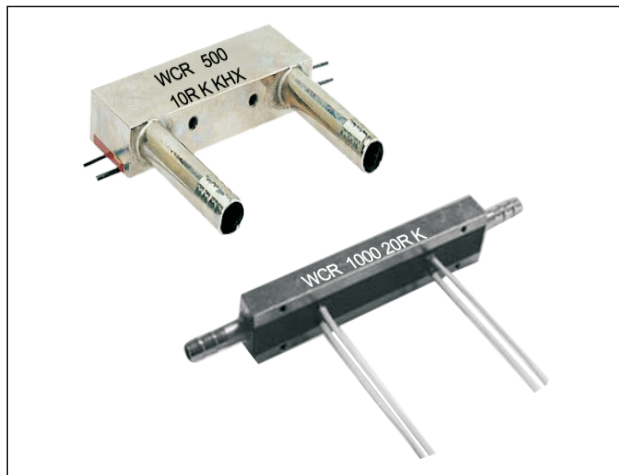




● Features

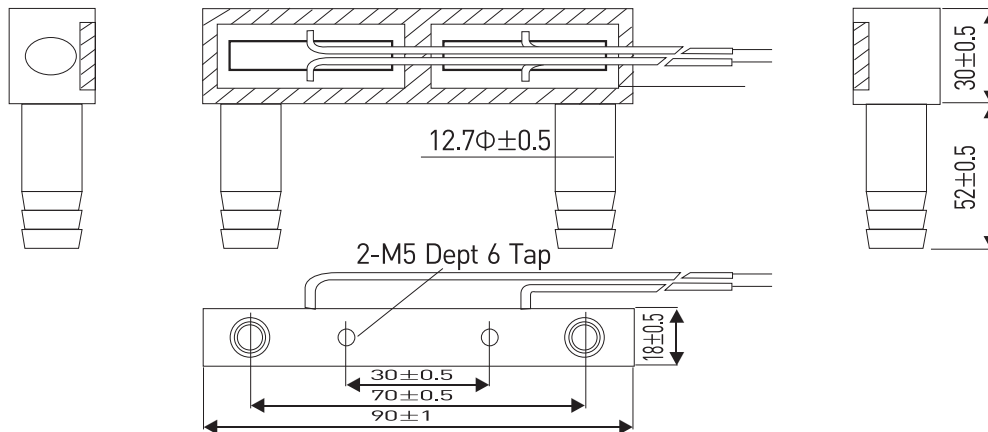
These are 500W,1000W high power resistors exhibiting very low operating temperatures. These models offer very low inductance and high surge handling capacity. It consist of a flat resistive element with twisted air leads. A 5Kv dielectric strength is ensured with an alumina substrate.

● Applications

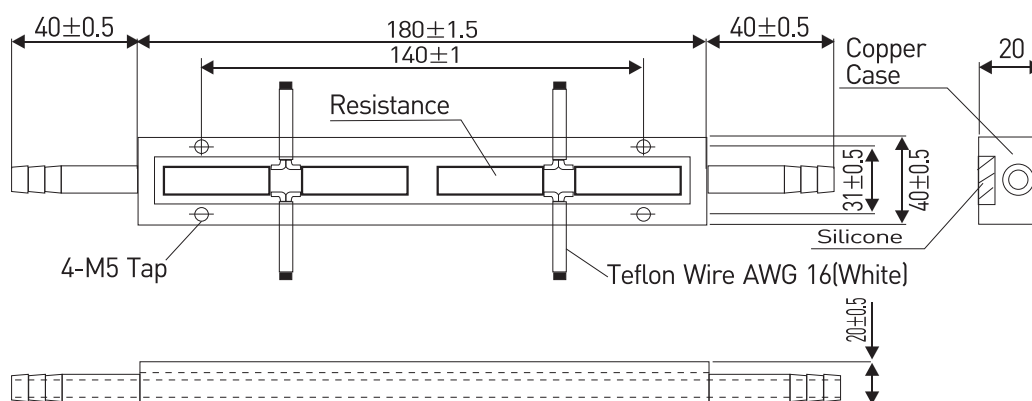
The low operating temperature of the element gives a low failure rate in high-density, compact instruments and equipment. These models can be used in snubber resistors, GTO and IGBT in electric power conversion systems.

● Dimensions

WCR 500



WCR 1000



● Reference Standards

JISC 5201-1

● Ordering Information

Example:

WCR	500	K	250	10R0
(1)	(2)	(3)	(4)	(5)
Series Name	Power Rating	Resistance Tolerance	TCR	Resistance

(1)Type: WCR SERIES

(2)Power Rating: 500=500W, 1000=1000W

(3)Tolerance: K=±10%

(4)TCR: ±250ppm/°C

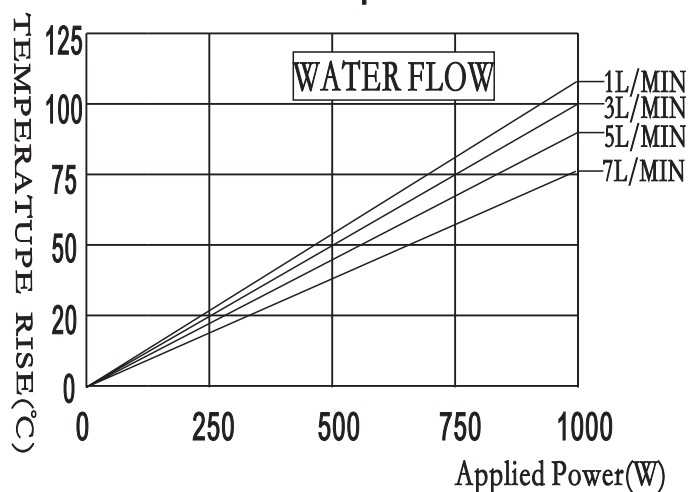
(5)Resistance Value: 10R0=10R, 20R0=20Ω, 40R0=40Ω...

● Applications And Ratings

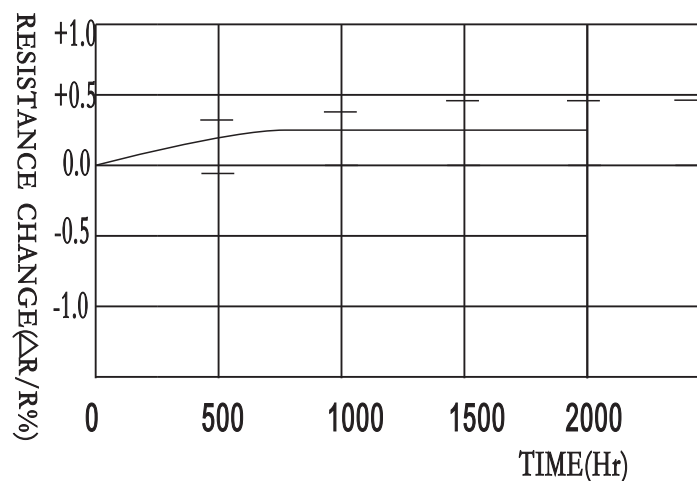
Type	Rated Power (W)	Resistance (Ω)	TCR (PPM/°C)	Tolerance Range
WCR	500W	10Ω 20Ω	±250ppm/°C	K=±10/°C
	1000W	40Ω 120Ω		

● Temperature Increase Versus power Load Life

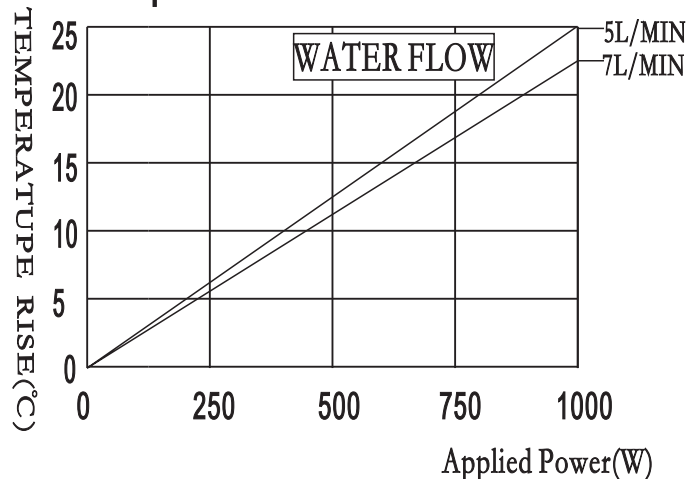
Element Surface Temperature Rise



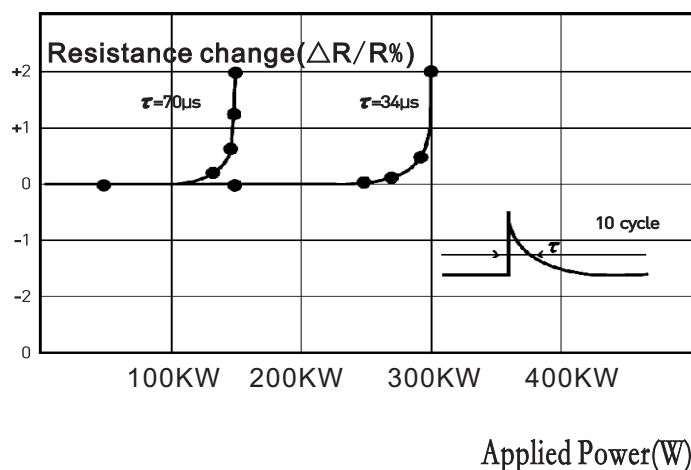
Load life characteristics



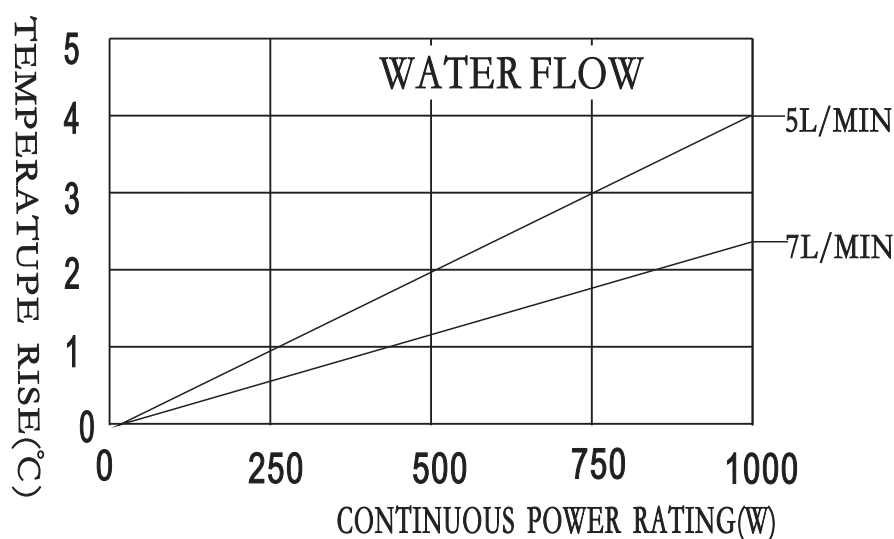
Case Temperature Rise



Impulse Test (typical)



● Cooling Water Temperature Rise VS Power Rating



● Performance Characteristics

Rated Power	WCR500: 500W (water cooling)	WCR1000: 1000W (water cooling)
Resistance Range	10, 20, 40 120 ohms	
T.C.R	$\pm 250\text{ppm}/^{\circ}\text{C}$	
Resistance Tolerance	$K \pm 10\%$	
Dielectric Strength	AC 2000V Between terminals and fin.Option:DC5000V between terminals and fin	
Series Inductance	40nH/dual resistor(typical)	0.1 μH
Volume of water flow	2L/1Miniute(minimum)	6L/1Miniute(minimum)
Water tamp.	41°C at maximum at inlet,more than the dew point	
Case temp. rise	14.°C	
Water temp. rise	1.4°C	
House Mouth	Standard:Nipple,any types are avaiable	
Surface temp. rise	50.°C	
Max. Element Surf. Temp	110°C	
Pressure loss	0.06 kgf/cm ²	0.1 kgf/cm ²