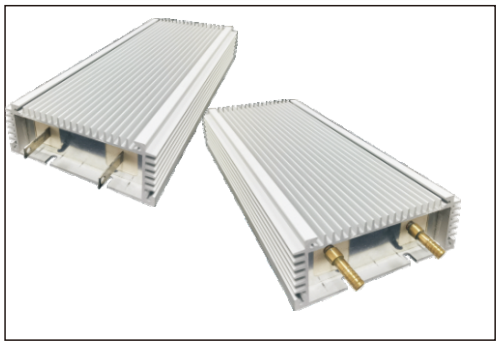
WDI Aluminum Housed Water-cooled Resistor



Features

-Water cooled resistors circularly cooled by flowing tap water (or distilled water or other liquid),replacement the high cost traditional deionized water.
-Power Range:1KW-10KW
-High Power,Small Volume,Stable Operation,High Insulation,Good Sealing,Low Temperature & long life.
-Taps/Termianls leading out .

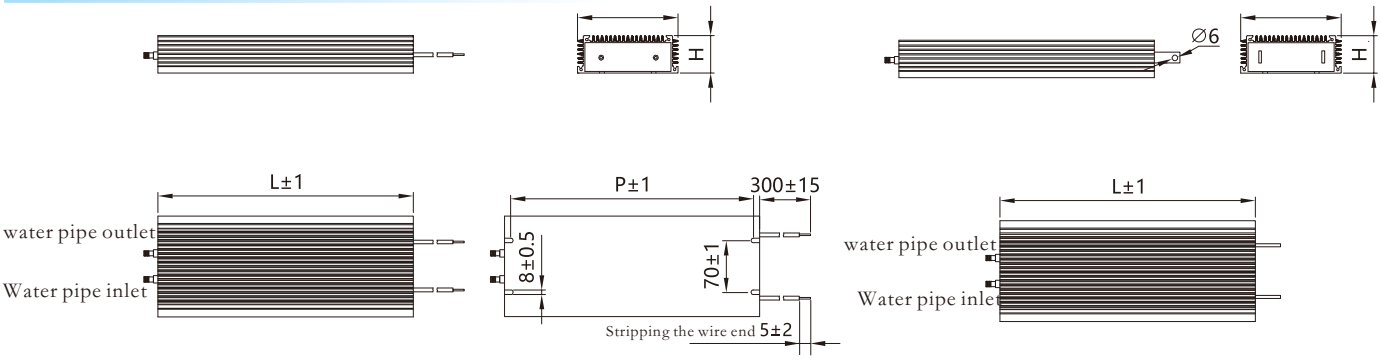
Application

Widely used in mechanical equipment, load,furnace, smelting, wind power generation and solar power generation, used as energy absorption; In highpower electronic circuits used as shunt, voltage divider and load ; used in the regulating valve of static no power dynamic compensator (SVC) or thyristor converter valve of direct current transmission (HVDC).Ideal electronic component to be assembled inside high-power load banks.

Construction

The Copper Tube Water Cooled Resistors is made of high-quality Red Copper as the matrix,unique insulating material and high-precision alloy wire wound. The unique welding method welding + 100% water pressure sealing test of each resistance eliminates the hidden danger of water leakage. Its outlet water temperature is between 40 ℃ and 60 ℃. When in use, the cooling water shall be supplied first, and then the power shall be supplied after the water flow meets the requirements and fills the inner cavity of the resistor; During shutdown, cut off the power supply first and then the water to avoid dry burning and damage of the resistor.

Dimensions



Type	Power (W)	Resistance Range (Ω)	L±1.0	W±1.0	H±1.0	P±1.0	TCR (ppm/℃)	Tolerance
WDI	1000	0.1Ω-20KΩ	215	175	65	195	±100PPM ±260PPM	K(±10 %) J (±5 %) G(±2 %) F (±1 %)
	2000		265	175	65	245		
	3000		335	175	65	315		
	4000		365	175	65	345		
	5000		400	175	65	380		
	6000		450	175	65	430		
	8000		500	175	65	480		
	10000		600	175	65	580		

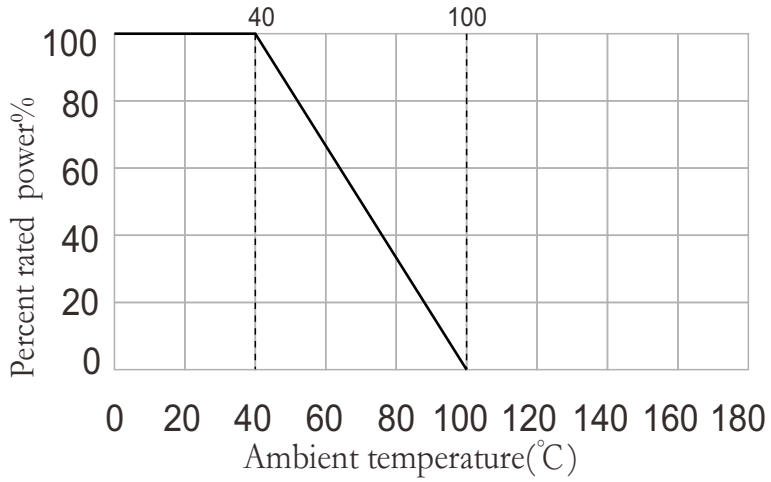
Ordering Information

Example

WDI	100	J	0R1
(1)	(2)	(3)	(4)
Type	Reatd Power	Resistance Tolerance	Reisitance

(1)Type:WDI
(2)Reatd power:1000W、2000W、3000W、5000W、7000W.....
(3)Resistance Tolerance:F=±1%，G=±2%，J=±5%,K=±10%
(4)Reisitance:0R1=0.1Ω,20KR0=20KΩ,

Derating Curve



Performance

Item	Requirement	Test Method
Resistance Tolerance	Testing Voltage ≤3V,Ambient Temperature 25℃	F---G---J--K
T.C.R	$\frac{R1-R0}{R0(T1-T0)}\times 10^{6}$ (PPM/℃) R0:Room Temperature(T0)Resistance R1:Room Temperature T0+100℃ (T1)Resistance	±100PPM~±260PPM
Rated Load	40℃,rated voltage,1hour	△R≤±(3%R+0.1Ω)
Dielectric Withstand Voltage	2KV-7KVac 60s , leakage current 2.5mA	△R≤±(0.1%R+0.05Ω)
Insulation Resistance	1000Vdc	50~1000MΩ,1Min
Terminal Tensile Strength	Wire diameter ≤1.5 with 20N,wire diameter ≥1.5 with 40N, terminal tension 20N ,Copper end /stainless steel end,40N	No off
Vibration resistance	1.5mm,10-55-10Hz,each 2hours	No damage,No off
Load Life	At rated voltage,90 min "On",30 min "Off" ,total 500hours	△R≤±(3%R+0.1Ω)
Low Temp.Resistance	Store at - 55 ℃ ± 2 ℃ for 16h	△R≤±(1%R+0.1Ω)
High Temp.Resistance	Store at 70 ℃ ± 2 ℃ for 16h	△R≤±(1%R+0.1Ω)