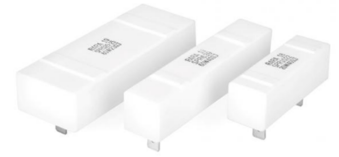


AQL (Ceramic encased Wire Wound Resistors for Automobile)

The AQL models are wire wound, Ceramic encased resistors for Vehicle, EV(Electric Vehicle), HEV(Hybrid Electric Vehicle), PHEV(Plug-in Hybrid Electric Vehicle) . These models controls inrush current through PRA(Power Relay Assembly)



GENERAL SPECIFICATION

Model	Rated Power [W]	*Resistance Range[Ω]	Resistance Tolerance [%]
	Forced cooling	Inductive	
AQL20	20	20 ~ 80	J [±5.0%]
AQL30	30	20 ~ 80	
AQL40	40	20 ~ 80	
AQL50	50	20 ~ 80	
AQL60	60	20 ~ 80	

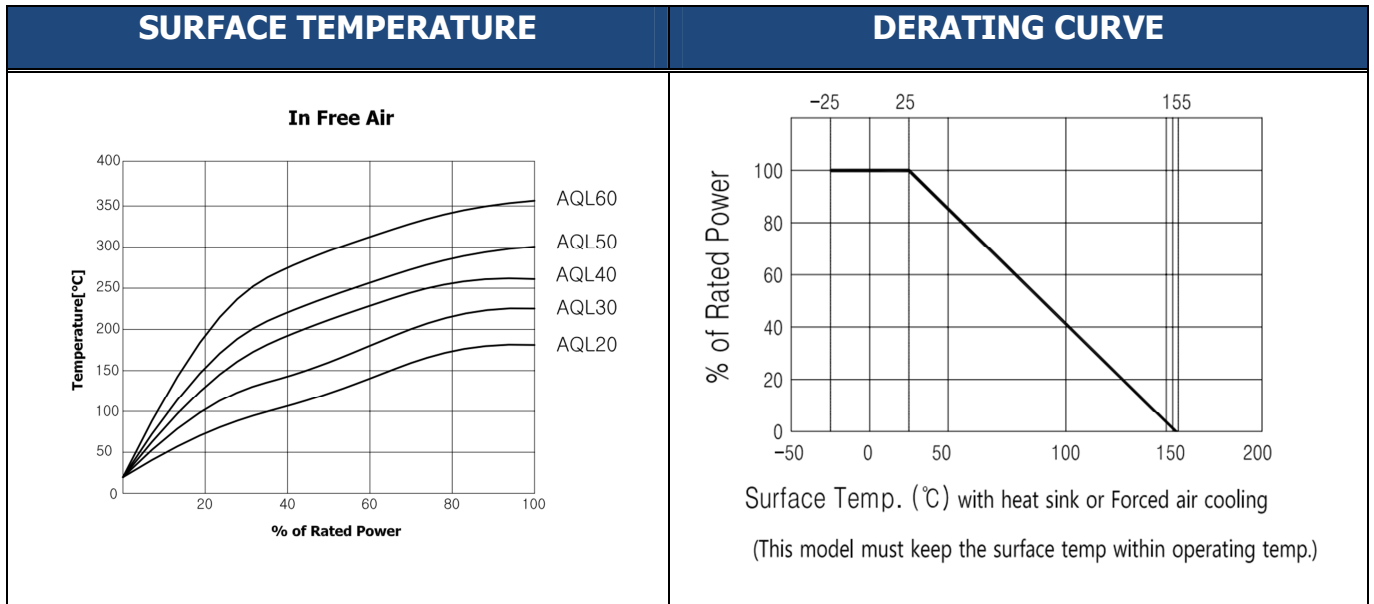
*Also available in extended ohmic ranges

CHARACTERISTICS

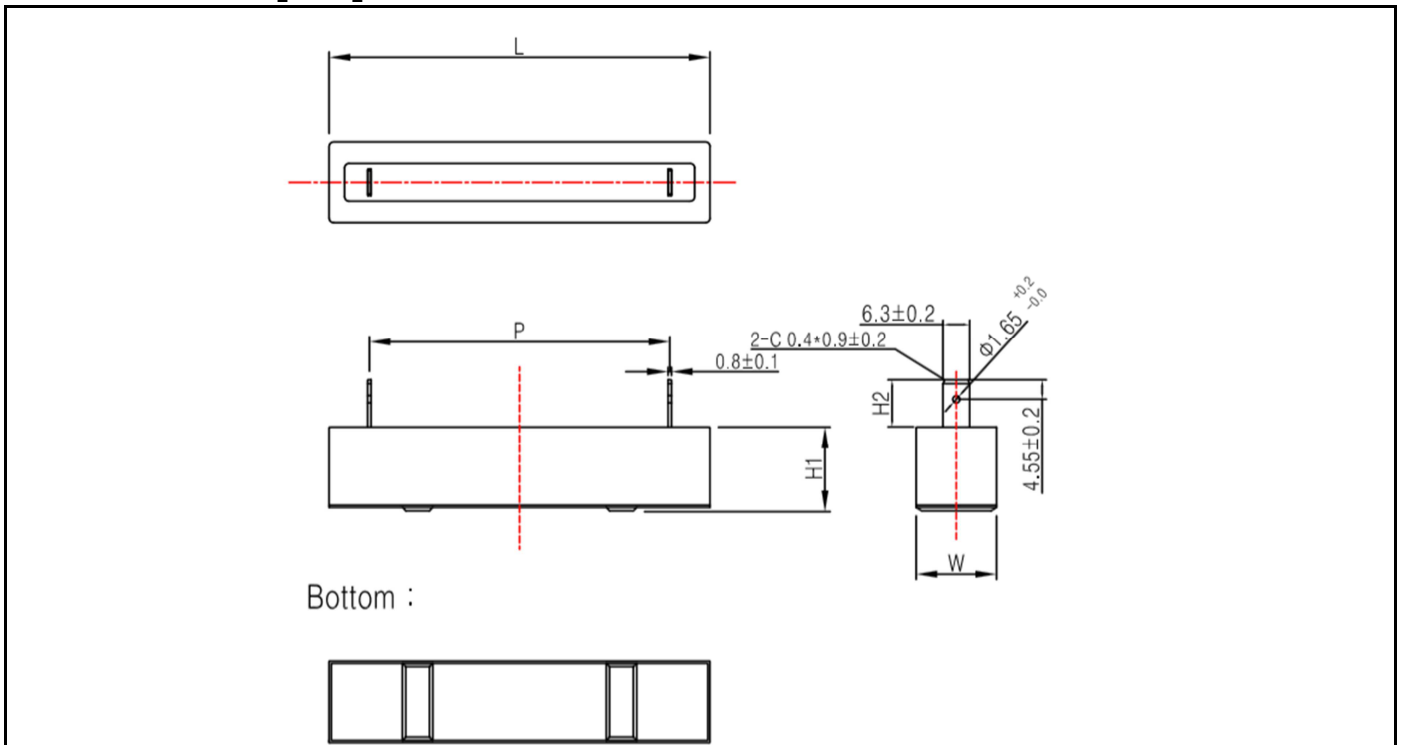
Values in [] mean Change in Ω After Test

Temperature Range	-55 ℃ ~ +155 ℃		
Insulation Resistance	Min. 20MΩ		
Dielectric Withstanding Voltage	AC1500V, For 1 Min (Max. Leakage Current 2mA)		
Temperature Coefficient	Max ±260ppm / ℃ (+25 ℃ and +120 ℃)		
Short Time Overload	±[2%+0.05]	10 X Power rating , 5 Seconds	
Moisture Resistance	±[3%+0.05]	40 ℃ / RH95% 500Hours, DC100V Case to terminal	
Thermal Shock	±[2%+0.05]	Power Rating 30min, -25 ℃ 15Min	
Vibration condition & Mechanical shock	±[5%±0.05]	Vibration condition	(10~2000)Hz 5g, 1cycle / 20 min (12 Cycle)
		Mechanical shock	± 100G, 6ms, Half sine (5 Cycle)
Moisture Load Life	±[3%+0.05]	40 ℃ / RH 95% Power rating x 0.1 1.5 Hours On, 30min Off for 1000 hrs.	
	±[3%+0.05]	+65 ℃, +25 ℃, -10 ℃ / RH95% Power rating x 0.1 1.0 Hours On, 1.0 Hours On Off for 240 hrs.	
Load Life	±[5%+0.05]	Power Rating 1.5Hours On, 30Min Off, 1000 hrs.	
Operation Test	±[5%+0.05]	Successful	+85 ℃ , Rush Current Test, Specific Voltage, Capacitance, 1,000~15,000 Cycle
		Failed test	+85 ℃ , Rush Current Test, Specific Voltage, Without Capacitance, 5~50Cycles
		Low Temp	-40 ℃ , Rush Current Test, Specific Voltage, Capacitance, 3Hours
Temp. Cycle	±[3%+0.05]	+85 ℃ 10min, -40 ℃ 10min 1cycle 60min , 207 Cycles	

■ SURFACE TEMPERATURE INCREASE VERSUS POWER LOAD & DERATING CURVE



■ DIMENSIONS [mm]



Model	Dimension [mm]					Weight [g]± 10%
	L	P	W	H1	H2	
AQL20	60 ± 2.5	36.2 ± 2.5	19 ± 1.5	19.8 ± 1.5	11 ± 2.0	52
AQL30	75 ± 2.5	46.2 ± 2.5	19 ± 1.5	19.8 ± 1.5	11 ± 2.0	68
AQL40 / 50 / 60	90 ± 2.5	71 ± 2.5	19 ± 1.5	19.8 ± 1.5	11 ± 2.0	75