



# ULM

## HIGH POWER METAL CLAD RESISTORS (UL® RECOGNIZED)

The ULM 1600 – 2800 models are our highest power, wire wound, metal clad resistors. These models have an extruded aluminum housing providing strong and rugged protection. Options include flying leads or tab terminals and inductive or non-inductive windings. The most common applications are motor drives, braking and snubber applications and power sources for industrial equipment. These models are fully RoHS compliant.

### GENERAL SPECIFICATIONS

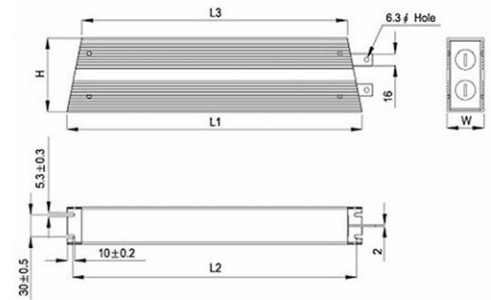
Model	Rated Power	Resistance Range (Ω)		Resistance Tolerance
	Free Air	Inductive	Non-Inductive	
ULM1600	500	1.5-88	0.3-23	±1.0 (F) ±5.0 (J) ±10 (K)
ULM 2000	400	2.0-113	0.45-30.5	
ULM 2400	300	2.5-144	0.6-37	
ULM 2800	250	3.0-135	0.7-33.5	

### CHARACTERISTICS

Temperature Range	-55°C to +280°C
Insulation Resistance	20MΩ minimum
Dielectric Withstanding Volt.	AC 1500V, 2500V, 3500V, 4500V for 1 minute; Max leakage current: 2mA
Temp. Coefficient	±260ppm/C maximum
Short Time Overload	±(3%+0.05W) 5-10 X power rating (5 sec.)
Moisture Resistance	±(3%+0.05W) 40°C, 95% RH, DC100V case to terminal (500 hours)
Thermal Shock	±(5%+0.05W) Power rating 30 minutes, -40C 15 minutes
Vibration	±(2%+0.05W) 10Hz-55Hz-10Hz (1 minute), 2 hours each direction
Moisture Load Life	±(3%+0.05W) 40°C, 95% RH, 0.1X Power rating 1.5 hours on, 30 minutes off (500 hours)
Load Life	±(5%+0.05W) Power rating 1.5 hours on, 30 minutes off (500 hours)

### DIMENSIONS

Model	Dimensions [mm]						Weight [Kg]
	L1±2	L2±2	L3±2	H±1	W±0.5		
ULM 1600	330	315	290	100	50		2.5
ULM 2000	440	385	360	100	50		3.1
ULM 2400	480	465	440	100	50		3.7
ULM 2800	550	535	510	100	50		4.3



### SURFACE TEMPERATURE INCREASE VS POWER LOAD & DERATING

