



Metal Clad Wire Wound Resistors



The IRM (M=Metal Cover type) models are metal-clad wire-wound high-power resistors designed for industrial and other applications. Our extruded aluminum housing provides rugged and strong protection. These models are available with tab terminals. The most common applications for these models are : Motor drives, braking and snubber applications and power sources for industrial equipment

Model	Rated Power[W]	*Resistance Range[Ω]		Tolerance [%]
	In Free Air	Inductive	Non-Inductive	
IRM1600 / ULM1600	570	1.5 ~ 88	0.3 ~ 23	F[±1.0%] J[±5.0%] K[±10%]
IRM2000 / ULM2000	650	2.0 ~ 133	0.45 ~ 30.5	
IRM2400 / ULM2400	720	2.5 ~ 144	0.6 ~ 37	
IRM2800 / ULM2800	750	3.0 ~ 135	0.7 ~ 33.5	

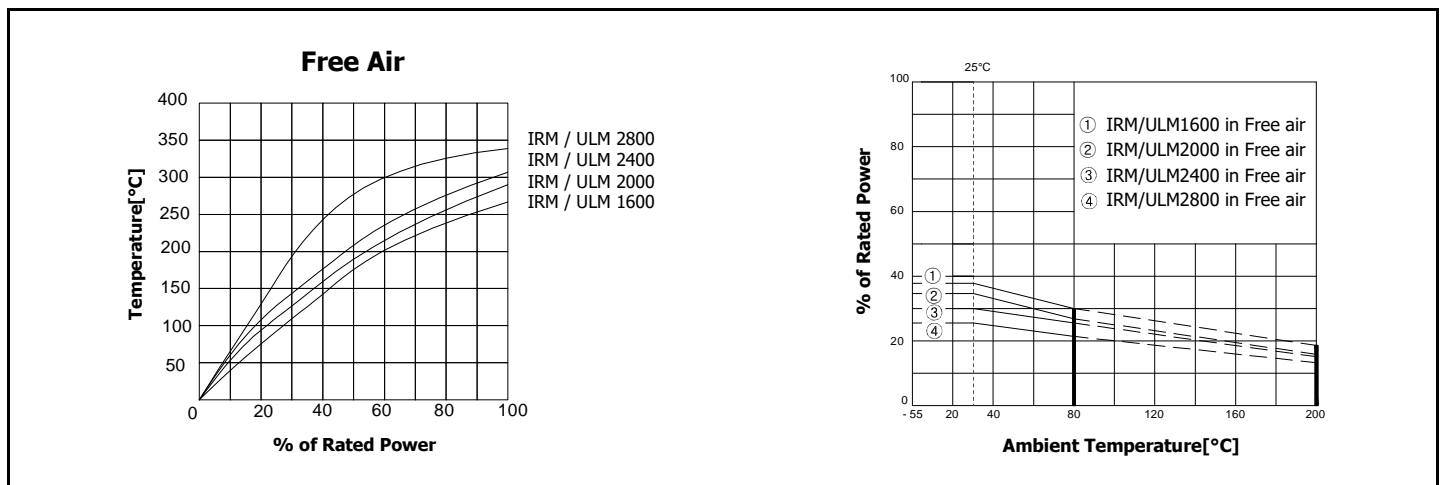
ULM = UL type of IRM
Extended ohmic ranges are available. Please ask RARA for more info. on this

CHARACTERISTICS

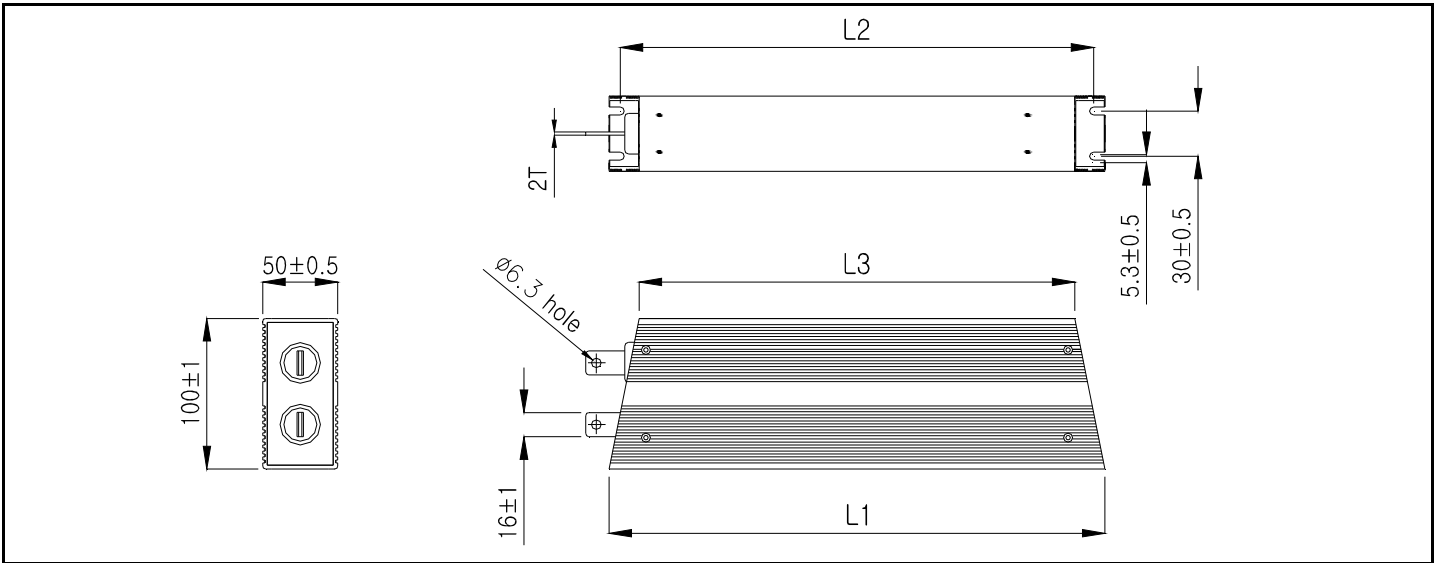
Values in [] mean Change in Ω After Test

Operating Temp.		- 55°C ~ +200°C
Insulation Resistance		20MΩ minimum
Dielectric Strength	IRM	Available options : AC1500V, 2500V, 3500V, 4500V for 1min(Max leakage current : 2mA)
	ULM	AC2200V for 1min.(Input voltage Max 600V) ULM Series Dielectric Strength options AC2500V, 3500V, 4500V, 5400V are available (Input voltage Max 600V)
Temperature Coefficient		Max ± 260ppm/°C
Short Time Overload	±[2%+0.05Ω]	10 X Power rating, 5 sec
Moisture Resistance	±[3%+0.05Ω]	40°C / RH95% 500 Hours, DC100V Case to Terminal
Thermal Shock	±[2%+0.05Ω]	Power Rating 30min, -25°C 15Min
Vibration	±[1%+0.05Ω]	10Hz ~ 55Hz ~ 10Hz[1min], 2 hours each direction
Moisture Load Life	±[3%+0.05Ω]	40°C / RH95% Power Rating x 0.1, 1.5 Hours On, 0.5 Hours Off for 500 Hours
Load Life	±[5%+0.05Ω]	Power rating 1.5 Hours on, 30 min Off 1000 Hours

SURFACE TEMPERATURE INCREASE VERSUS POWER LOAD AND DERATING CURVES



DIMENSIONS[mm]



Model	Dimension[mm]			Weight[kg]
	L1 ± 2	L2 ± 2	L3 ± 2	
IRM1600 / ULM1600	300	315	290	2.5
IRM2000 / ULM2000	400	385	360	3.1
IRM2400 / ULM2400	480	465	440	3.7
IRM2800 / ULM2800	550	535	510	4.3

ULM = UL type of IRM(Dimensions are same.)

FLYING LEADS

Model	3.5mm ²	2.0mm ²	UL3512 AWG10	UL3512 AWG14
IRM1600 / ULM1600	0.3Ω ~ 0.99Ω	1Ω ~	0.3Ω ~ 0.99Ω	1Ω ~
IRM2000 / ULM2000	0.45Ω ~ 0.99Ω	1Ω ~	0.45Ω ~ 0.99Ω	1Ω ~
IRM2400 / ULM2400	0.6Ω ~ 0.99Ω	1Ω ~	0.6Ω ~ 0.99Ω	1Ω ~
IRM2800 / ULM2800	0.7Ω ~ 0.99Ω	1Ω ~	0.7Ω ~ 0.99Ω	1Ω ~

Option : Other options of flying leads are also available. Please ask RARA for more info. on this

ORDERING PROCEDURE EXAMPLE

IRM1600

↓

Model #

IRM1600
ULM1600

N

↓

Blank : Normal type (Inductive)
N : Non-Inductive type

- (Inductive Type)
N (Non-Inductive type)

10 Ω

↓

Resistance

10 Ω
20 Ω

J

↓

Tolerance

F (±1%)
J (±5%)

FL XXXX

↓

Flying Leads (mm) Option

FL300mm

Ex)

IRM : Metal cover
ULM : UL Approved Metal cover

Thermal Protectors are available – Please enquire.
Lead wire for installation should be at least 600V and be able to withstand 200°C [ULM1600-2800]

If You require more detailed technical information please contact the RARA.