RoHS COMPLIANT IP65

Metal Clad Wire Wound Resistors

The IRV/ULV 600~1200 (Cement molding type) models & IRM/ULM600 ~ 1200 (Mater cover type) are our standard higher power wire wound, metal-clad resistors. The ULV/ULM 600~1200 is the UL approved version of the IRV/IRM 600~1200 models. These models have an extruded aluminum housing providing strong and rugged protection. Options include flying leads or tab terminals, inductive or non-inductive windings. The most common applications for theses models are : Motor drives, braking and snubber Applications and power sources for industrial equipment.

Model	Rated Power [W]	*Resistance Range[Ω]						Tolerance [%]
		Inductive			Non-Inductive			
	On HeatSink	Tab TP*	Tab TS*	Flying Leads	Tab TP*	Tab TS*	Flying Leads	
IRV600 / IRM600	600	0.1 ~ 9	9.1 ~ 94	0.1 ~ 94	0.1 ~ 5.3	5.4 ~ 21.2	0.1 ~ 21.2	F[±1.0%] G[±2.0%] J[±5.0%] K[±10%]
ULV600 / ULM600		0.1 ~ 9	9.1 ~ 94	0.11 ~ 94	0.1 ~ 5.3	5.4 ~ 21.2	0.1 ~ 21.2	
IRV800 / IRM800	800	0.1 ~ 11	11.1 ~ 112	0.1 ~ 112	0.1 ~ 7.2	7.3 ~ 28.8	0.1 ~ 28.8	
ULV800 / ULM800		0.1 ~ 11	11.1 ~ 112	0.14 ~ 112	0.1 ~ 7.2	7.3 ~ 28.8	0.14 ~ 28.8	
IRV1000 / IRM1000	1000	0.1 ~ 18	18.1 ~ 150	0.1 ~ 150	0.1 ~ 9	9.1 ~ 37	0.1 ~ 37	
ULV1000 / ULM1000		0.1 ~ 18	18.1 ~ 90	0.17 ~ 140	0.1 ~ 9	9.1 ~ 36	0.17 ~ 36	
IRV1200 / IRM1200	1200	0.1 ~ 25	25.1 ~ 160	0.1 ~ 160	0.1 ~ 12	12.1 ~ 48	0.1 ~ 48	
ULV1200 / ULM1200		0.1 ~ 25	25.1 ~ 175	0.21 ~ 160	0.1 ~ 12	12.1 ~ 48	0.21 ~ 48	

* Notes : Tab TP = Terminal Parallel connection, Tab TS = Terminal Serial connection
* ULV = UL type of IRV / ULM = UL type of IRM

CHARACTERISTICS

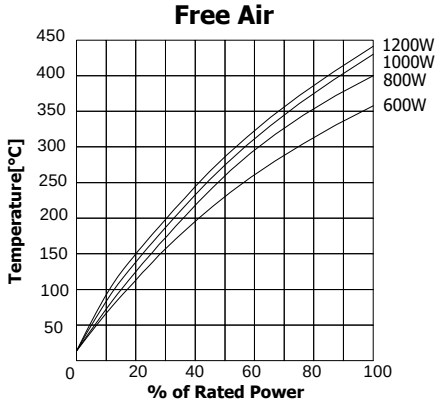
Values in [] mean Change in Ω After Test

Temperature Range			- 55°C ~ +200°C
Insulation Resistance			20MΩ minimum
Dielectric Strength	IRV / IRM		Available options : AC1500V, 3500V, 4500V, 5400V for 1min(Max leakage current : 2mA)
	ULV / ULM	*See Note	AC2200V for 1min.(Input voltage Max 600V) ULM Series Dielectric Strength options AC2500V, 3500V, 4500V are available
Temperature Coefficient			Max. ± 260ppm/°C
Short Time Overload	±[2%+0.05Ω]		10 X Power rating, 5 sec
Moisture Resistance	±[3%+0.05Ω]		40°C / 95%RH, DC100V case to terminal, 500 hours
Thermal Shock	±[2%+0.05Ω]		Power Rating 30 min, -25°C 15 min
Vibration	±[1%+0.05Ω]		10Hz~55Hz~10Hz [1min.], 2 hours each direction
Moisture Load Life	±[3%+0.05Ω]		40°C / 95% RH, 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 500 hours

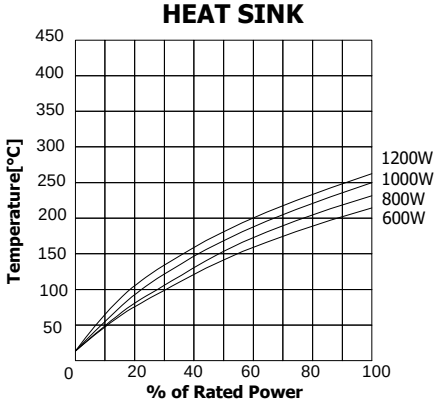
*Note : ULV/M Terminal type's System input voltage : Max.300V, ULV/M Lead type's System input Voltage : Max. 600V
dielectric withstanding voltage options of AC 2500V, 3500V, 4500V, 5400V are also available. Optional dielectric withstanding voltage must be higher than standard (calculated by formula)

SURFACE TEMPERATURE INCREASE VERSUS POWER LOAD

Free Air



HEAT SINK



Heat sink size : Al 600 x 600 x 5mm

A mid-point bracket is required for 800 ~ 1200 W models to ensure sufficient contact with the heat sink

IRV,ULV,IRM,ULM 600~1200

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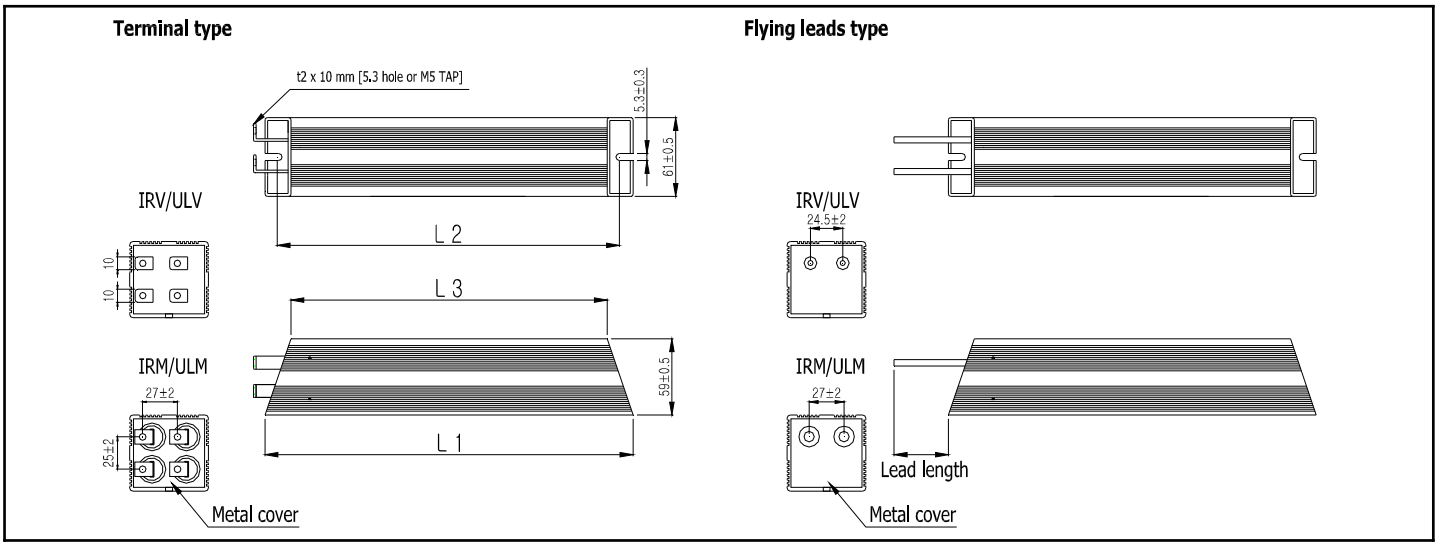
DIMENSIONS[mm]



Model	Dimension[mm]			IRV Series Weight[g]
	L1 ± 2	L2 ± 2	L3 ± 2	
IRV600 / ULV600 / IRM600 / ULM600	235	216	195	1165
IRV800 / ULV800 / IRM800 / ULM800	285	266	245	1500
IRV1000 / ULV1000 / IRM1000 / ULM1000	335	316	295	1835
IRV1200 / ULV1200 / IRM1200 / ULM1200	405	386	365	2304

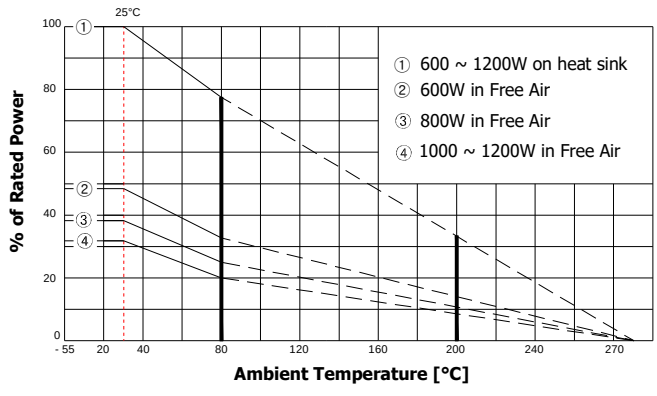
ULV = UL type of IRV, ULM = UL type of IRM

FLYING LEADS

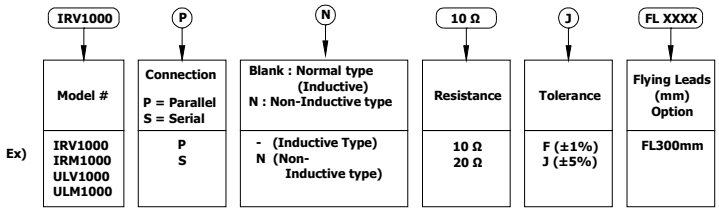
Model	$8mm^2$	$5.5mm^2$	UL3512 AWG10
IRV / IRM 600 ~ 1200	0.1 Ω ~ 0.99 Ω	1 Ω ~	X
ULV / ULM 600	X	X	0.11 Ω ~
ULV / ULM 800	X	X	0.14 Ω ~
ULV / ULM 1000	X	X	0.17 Ω ~
ULV / ULM 1200	X	X	0.21 Ω ~

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

DERATING CURVES



ORDERING PROCEDURE EXAMPLE



IRV : Cement molding
ULV : UL Approved Cement molding
IRM : Metal cover
ULM : UL Approved Metal cover

Thermostat options are available for these models : internal and discreet connection. Please ask RARA for more info on this

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