

IRV, ULV, IRH, ULH WIRE WOUND, METAL CLAD RESISTORS



The IRV(V=vertical) & IRH(H=horizontal) models are our standard wire wound, metal clad resistors. The ULV and ULH models are UL approved versions of the IRV and IRH. These models have an extruded aluminum housing providing rugged and strong protection. Options include flying leads or tab terminals, inductive or non-inductive windings. The most common applications for these models are motor drives, braking and snubber applications and power sources for industrial equipment.

GENERAL SPECIFICATIONS

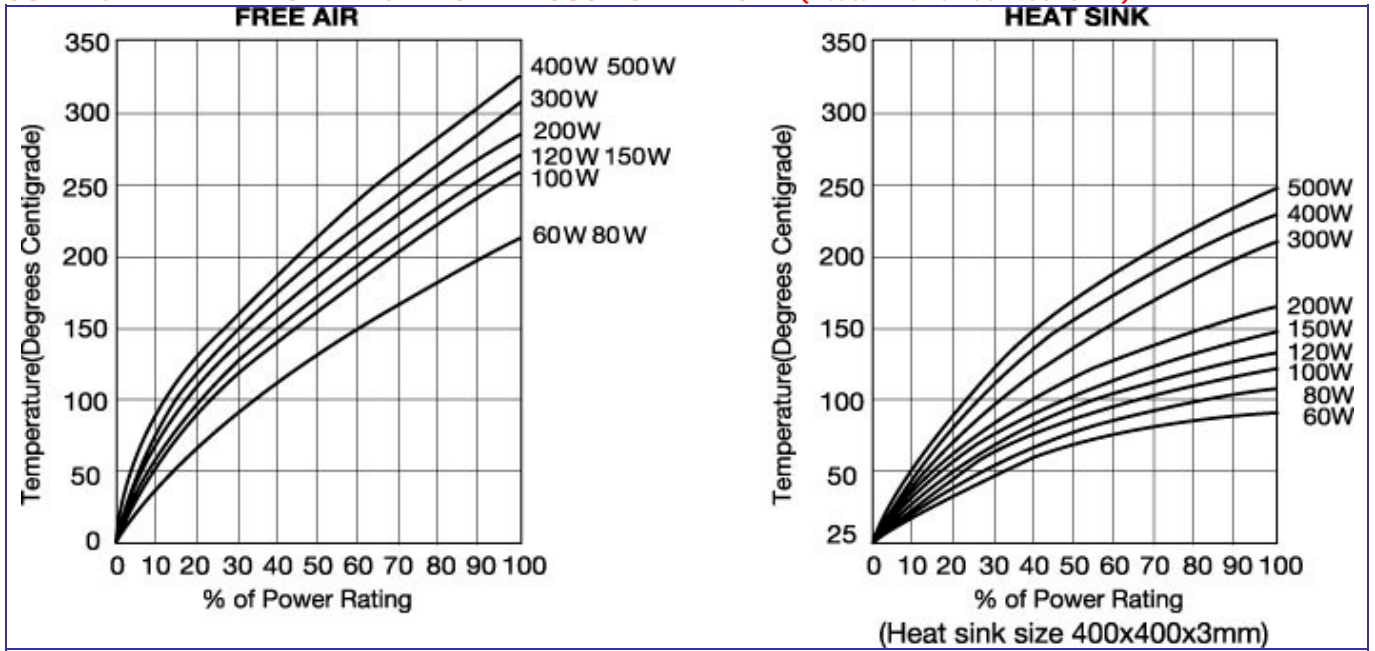
Model	Wattage Rating On Heat Sink	Resistance Range [ohms]				Notes:
		Inductive		Inductive		
		Tab Terminals	Flying Leads	Tab Terminals	Flying Leads	
IRV/IRH 60	60W	0.1-400		0.1-180		Standard Tolerances +-2%(G) +-5%(J) +-10%(K) Optional Tolerances +-1.0%(F) +-0.5%(D) +-0.25%(C) +-0.1%(B) Extended Resistances > 150K depending on model (please enquire)
ULV/ULH 60		0.1-375	0.1-400	0.1-180		
IRV/IRH 80	80W	0.1-910		0.1-110		
ULV/ULH 80		0.1-281	0.1-910	0.1-110		
IRV/IRH 100	100W	0.1-1.1K		0.1-240		
ULV/ULH 100		0.1-225	0.1-1.1K	0.1-225	0.1-240	
IRV/IRH 120	120W	0.1-1.3K		0.1-300		
ULV/ULH 120		0.1-187	0.1-1.3K	0.1-187	0.1-300	
IRV/IRH 150	150W	0.1-1.6K		0.1-390		
ULV/ULH 150		0.1-150	0.1-1.6K	0.1-150	0.1-390	
IRV/IRH 200	200W	0.1-2.2K		0.1-1.1K		
ULV/ULH 200		0.1-450	0.1-2.2K	0.1-450	0.1-1K	
IRV/IRH 300	300W	0.1-2.7K		0.1-1.5K		
ULV/ULH 300		0.1-300	0.1-2.7K	0.1-300	0.1-1.5K	
IRV/IRH 400	400W	0.1-4.3K		0.1-2.2K		
ULV/ULH 400		0.1-225	0.1-4.3	0.1-225	0.1-2.2K	
IRV/IRH 500	500W	0.1-6.8K		0.1-3K		
ULV/ULH 500		0.1-180	0.1-6.8K	0.1-180	0.1-3K	

CHARACTERISTICS

1/Temperature Range			-55C to +200C
2/Insulation Resistance			20Mohms minimum
3/Dielectric Strength	IRV/IRH	Available options: AC1500V, 3500V, 4500V, 5400V;Max. leakage current: 2mA	
	ULV/ULH	See Note	
4/Temp. Coefficient			+/-260ppm/C maximum
5/Short Time Overload	+/-[2%+0.05 ohms] 60W: 5XWatt Rating-5second,80to500W: 10 X wattage rating-5seconds		
6/Moisture Resistance	+/-[3%+0.05 ohms] 40C, 95% RH, DC100V case to terminal (500hrs.)		
7/Thermal Shock	+/-[2%+0.05 ohms] wattage rating 30min., -25C, 15minutes		
8/Vibration	+/-[1%+0.05 ohms] 10Hz-55Hz-10Hz (1min.),2hrs. each direction		
9/Moisture Load Life	+/-[3%+0.05 ohms] 40C,95%RH,0.1Xwattage rating, 1.5h.on,30min.off,500 hours		
10/Load Life	+/-[5%+0.05 ohms] wattage rating 1.5h. on, 30min. off, 500hours		

Note: ULV/ULH dielectric strength options of 1500V, 3500V, 4500V, 5400V are also available.
 Optional dielectric strength must be higher than standard (calculated by formula)

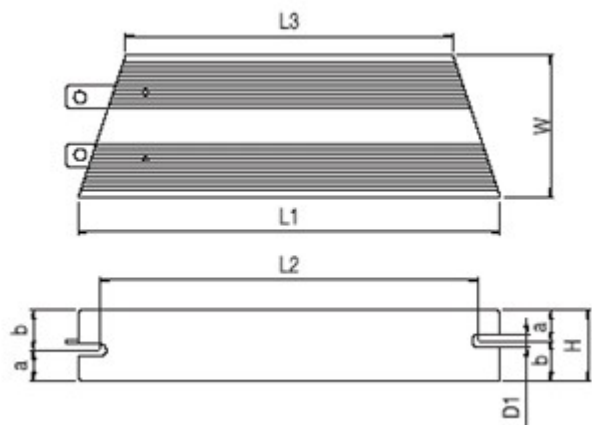
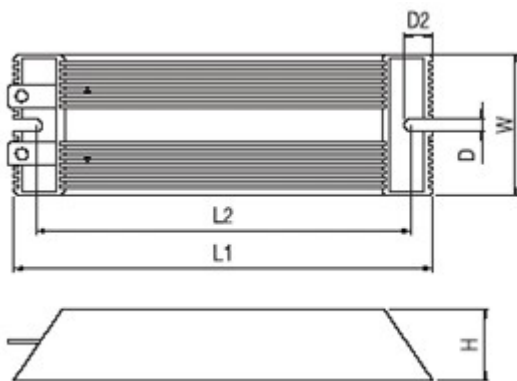
SURFACE TEMPERATURE INCREASE VERSUS POWER LOAD (Heatsink size 400X400X3mm)



A mid-point bracket is required for 600 & 1200W models to ensure sufficient contact with the heat sink.

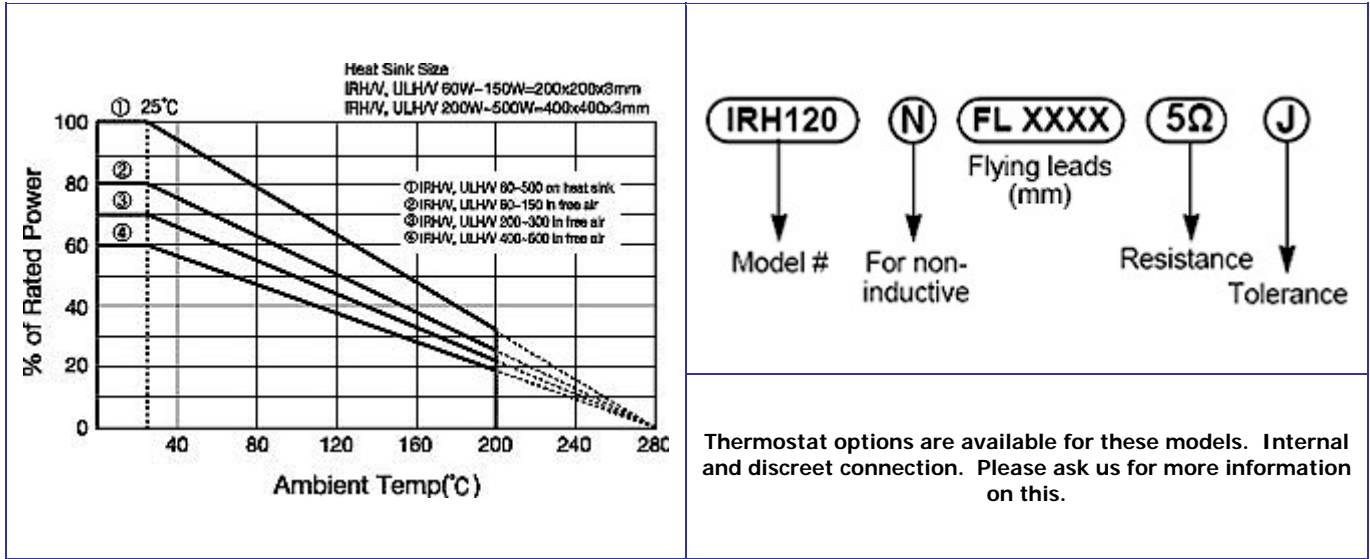
DIMENSIONS

Model	Dimensions [mm]										Weight [g]	
	L1 +-2	L2 +-2	L3 +-2	W +-0.5	H +-0.5	D1 +-0.5	D2 +-0.5	a	b	IRH	IRV	
H/V 60	100	87	60	41	22	4.3	8.65	10	12	110	113	
H/V 80	150	137	110	41	22	4.3	8.65	10	12	195	189	
H/V 100	165	152	125	41	22	4.3	8.65	10	12	216	215	
H/V 120	182	169	142	41	22	4.3	8.65	10	12	245	241	
H/V 150	210	197	170	41	22	4.3	8.65	10	12	283	290	
H/V 200	165	146	125	60	30	5.3	12	13	17	485	447	
H/V 300	215	196	175	60	30	5.3	12	13	17	600	600	
H/V 400	265	246	225	60	30	5.3	12	13	17	770	780	
H/V 500	335	316	295	60	30	5.3	12	13	17	990	980	





DERATING CURVE AND ORDERING PROCEDURE EXAMPLE



FLYING LEADS

Model	8mm ²	5.5mm ²	2mm ²	1.25mm ²	UL3512AWG10	UL3512AWG14
IRH/V60-150	-	-	0.1-0.99ohm	1ohm and up	-	-
IRH/V200-500	0.1-0.99ohm	1-4.99ohm	5ohm and up	-	-	-
IRH/V60-120	-	-	-	-	-	0.10ohm and up
ULH/V150	-	-	-	-	-	0.11ohm and up
ULH/V200	-	-	-	-	0.1-0.15ohm	0.16ohm and up
ULH/V300	-	-	-	-	0.1-0.22ohm	0.23ohm and up
ULH/V400	-	-	-	-	0.1-0.30ohm	0.31ohm and up
ULH/V500	-	-	-	-	0.1-0.37ohm	0.38ohm and up