

ULV/ULH TYPE (UL[®] Approved)

The ULV(V=vertical & ULH(H=horizontal) models are UL approved metal-clad, wire-wound high-power resistors designed for industrial and other applications. Our extruded aluminium housing provides rugged and strong protection. These models are available with flying leads or Tab terminals and can be ordered with inductive or non-inductive windings. To conform to UL safety requirements, ULV/ULH models differ from IRV/IRH models in that: The resistance range is smaller, the flying leads are UL approved and the dielectric strength depends on the ohmic value.

GENERAL SPECIFICATIONS

Model	Wattage Rating on Heat Sink	Resistance Range [ohms]				Resistance Tolerance
		Inductive		Non-Inductive		
		Tab terminals	Flying leads	Tab terminals	Flying leads	
ULH/ULV60	60	0.1-375	0.1-400	0.1-180	0.1-180	+-2.0(G) +-5.0(J) +-10(K)
ULH/ULV80	80	0.1-281	0.1-910	0.1-110	0.1-110	
ULH/ULV100	100	0.1-225	0.1-1.1K	0.1-225	0.1-240	
ULH/ULV120	120	0.1-187	0.1-1.3K	0.1-187	0.1-300	
ULH/ULV150	150	0.1-150	0.1-1.6K	0.1-150	0.1-390	
ULH/ULV200	200	0.1-450	0.1-2.2K	0.1-450	0.1-1K	
ULH/ULV300	300	0.1-300	0.1-2.7K	0.1-300	0.1-1.5K	
ULH/ULV400	400	0.1-225	0.1-4.3K	0.1-225	0.1-2.2K	
ULH/ULV500	500	0.1-180	0.1-6.8K	0.1-180	0.1-3K	



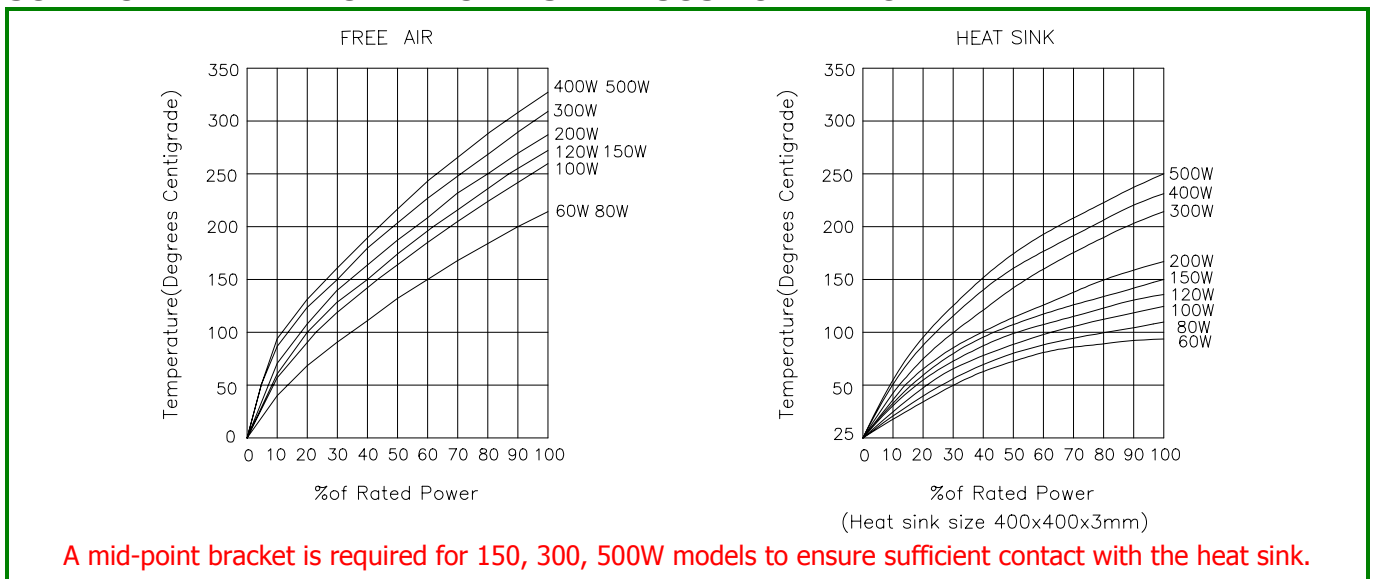
CHARACTERISTICS

Values in [] mean change in ohms after test

Temperature Range	-55C to 200C	
Insulation Resistance	20M ohms minimum	
Dielectric Strength	[1000V+(rated voltage×2)] / min.	
Temp. Coefficient	+-260ppm/C maximum	
Short Time Overload	+-[2%+0.05ohms]	60W:5Xwattage rating-5second, 80to500W: 10Xwattage rating-5seconds
Moisture Resistance	+-[3%+0.05 ohms]	40C, 95% RH, DC100V case to terminal (500hrs.)
Thermal Shock	+-[2%+0.05 ohms]	wattage rating 30min., -25C, 15minutes
Vibration	+-[1%+0.05 ohms]	10Hz-55Hz-10Hz (1min.),2hrs. each direction
Moisture Load Life	+-[3%+0.05 ohms]	40C,95%RH,0.1Xwattage rating, 1.5h.on,30min.off,500 hours
Load Life	+-[5%+0.05 ohms]	Wattage rating 1.5h. on, 30min. off, 500hours

Applied voltage : AC RMS voltage

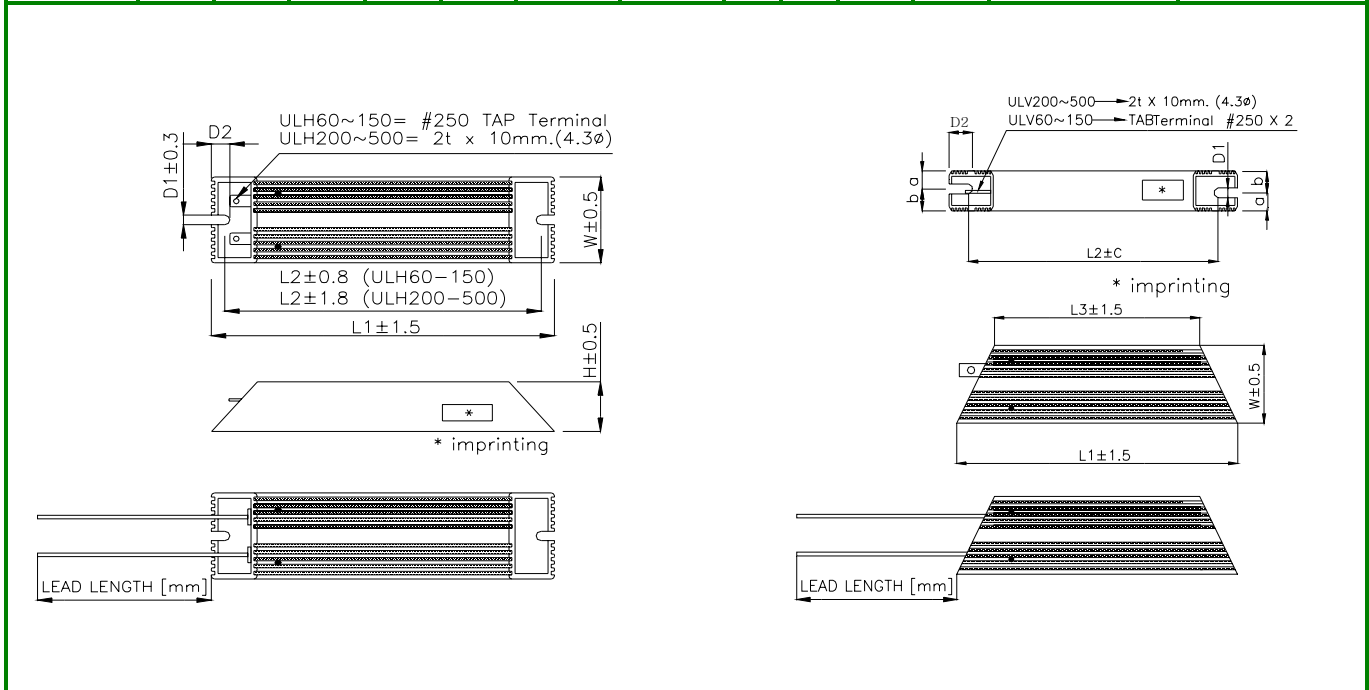
SURFACE TEMPERATURE INCREASE VERSUS POWER LOAD



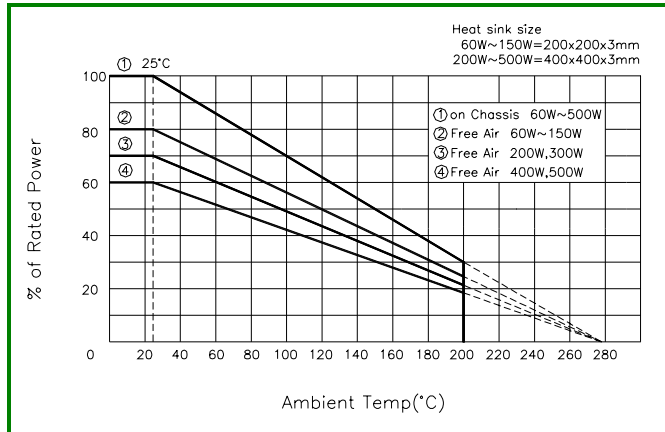
ULV/ULH TYPE

DIMENSIONS IRH/IRV TYPE

Model	Dimensions [mm]									Weight [g]		Flying Leads UL E120271(AWM), NO.3512	
	L1	L2	L3	W	H	D1+-0.3	D2+-0.3	a	b	IRH	IRV	AWG 10	AWG 14
ULH/ULV 60	100	87	60	41	22	4.3	8.65	10	12	110	113	X	0.10ohms & up
ULH/ULV 80	150	137	110	41	22	4.3	8.65	10	12	195	189	X	
ULH/ULV 100	165	152	125	41	22	4.3	8.65	10	12	216	215	X	
ULH/ULV 120	182	169	142	41	22	4.3	8.65	10	12	245	241	X	
ULH/ULV 150	210	197	170	41	22	4.3	8.65	10	12	283	290	X	0.11ohms & up
ULH/ULV 200	165	146	125	60	30	5.3	12	13	17	485	447	0.1ohms - 0.15ohms	0.16ohms & up
ULH/ULV 300	215	196	175	60	30	5.3	12	13	17	600	600	0.1ohms - 0.22ohms	0.23ohms & up
ULH/ULV 400	265	246	225	60	30	5.3	12	13	17	770	780	0.1ohms - 0.30ohms	0.31ohms & up
ULH/ULV 500	335	316	295	60	30	5.3	12	13	17	990	980	0.1ohms - 0.37ohms	0.38ohms & up



DERATING CURVE AND ORDERING PROCEDURE EXAMPLE



ULV120 N FL XXXX 5ohms J

Model #	For Non-Inductive	Flying Lead [mm]	Resistance	Tolerance
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If you require flying leads please add 'FL' + length in mm next to the model number. Also include an "N" if non-inductive is required.