

Type HCL Series

Key Features

Ultra Slim
Package –
7.25mm

High power to
size ratio

High overload
capability

UL approved



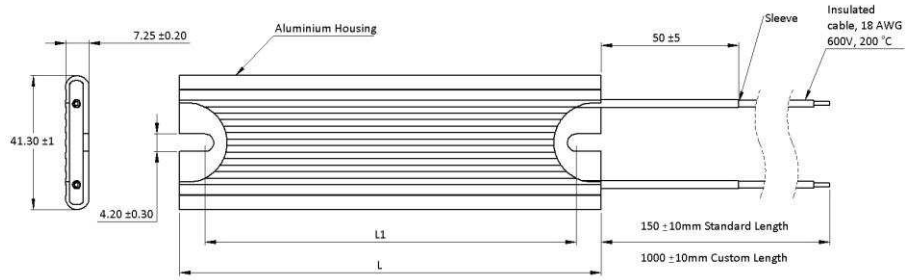
These wire wound resistors are designed in an ultra thin package capable of dissipating high power where space is at a premium and heat sinking is available. The resistor is capable of absorbing high overloads in relation to its size.

The resistors are ideal for use in servo drives & controllers and frequency inverters. They are used for motor braking, dummy loads and in conventional power resistor applications.

Characteristics – Electrical

Rated Power (W)	In Free Air	@20°C	@40°C
	HCL130	70	50
	HCL165	100	65
Resistance Range	See chart below		
Tolerance	±5%, ±10% (tighter on request / evaluation)		
Maximum Operating Voltage (VAC) - (f=50Hz)	1000V; In accordance with UL 508 specification reduced to 600V		
Maximum Operating Voltage (VDC)	1414V; In accordance with UL 508 specification reduced to 848V		
Surge Voltage Capability (V) (Between active part and housing)	4000 V; in accordance with IEC 61800-5-1		
Insulation Resistance	≥100MΩ @ 500 VDC		
Dielectric Strength (f=50Hz, 1Min)	2200 VAC for 1 Minute		
TCR	-80 to 200ppm/°C		
Cable	Standard insulated 18AWG,600V,200°C		
Resistor Body	Anodized Extruded Aluminium Profile		
UL File Number	E164323		

Dimensions and Resistance Range:

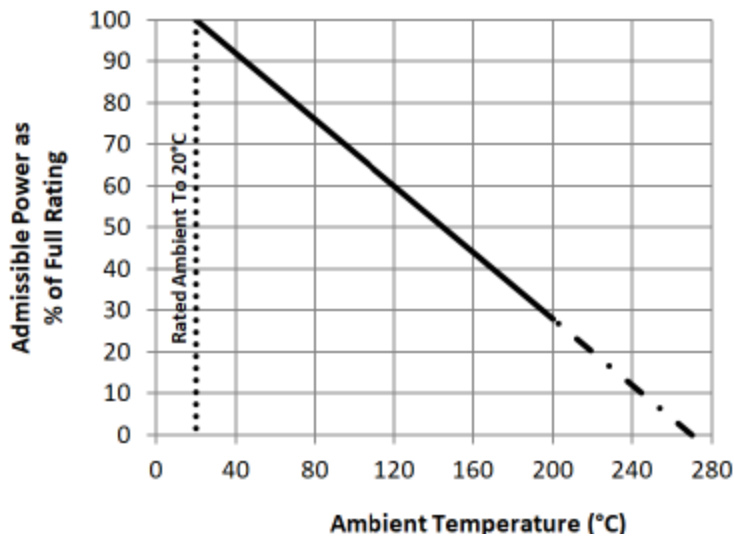


Type	Resistance value range	L±1.5 (mm)	L1±1.5 (mm)
HCL130	3R3 – 3K3	130	115
HCL165	4R7 – 5K6	165	150

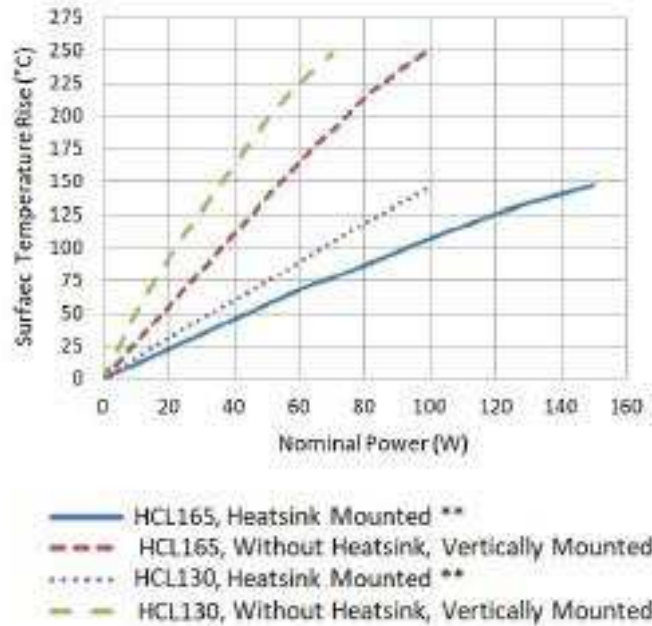
Environmental Characteristics

Item	Requirement	Method
Endurance	$\Delta R \leq \pm 10\%$	1000 Hrs Rated Power in Free air
Damp Heat Steady State	$\Delta R \leq \pm 10\%$	40°C RH 90~95% - 56 days
Dielectric Strength	2200VAC 1 Minute	
Insulation Resistance	$\geq 100M\Omega @ 500 VDC$	Tested for insulation resistance with a calibrated meter at 500VDC

Derating Chart



Power VS Surface Temperature Rise



** All tests are conducted using a 0.5°C/W rated heat sink. A thermal transfer compound must be applied to ensure low thermal resistance between resistor and heat sink. The heat sink must be flat to ensure good contact with the resistor.

How To Order

HCL130	J	4R7	C	X
Common Part	Resistance Tolerance	Resistance Value	Termination type	Cable length
HCL130	J – 5%	4R7 – 4.7Ω	C – Cable	X – 150mm
HCL165	K – 10%	56R – 56Ω 1K0 – 1KΩ	M – Custom	M**** custom M1000 1000mm