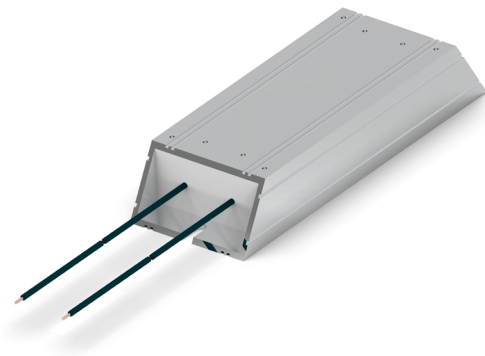


ALUMINUM HOUSED RESISTOR

TYPE HCH SERIES

INTRODUCTION

TE Connectivity (TE) is pleased to introduce this new wire wound power resistor. Designed and tested to absorb high power overloads they are ideally suited to braking applications.



FEATURES

- High power overload capability
- IP54 ingress protection
- PTFE insulated Flying Leads for flexibility of connection

ELECTRICAL CHARACTERISTICS

Feature	Specification
Power Rating	See Performance Specification
Tolerance	±5%, ±10%
Maximum Working Voltage*	1100 V
Insulation Resistance	>100 MΩ @ 1000 VDC
Dielectric Strength	3500 VAC for 1m Terminal - Aluminium Body
TCR	±200 ppm/°C
Resistor Element	Wire Wound
Flying Lead	300 mm Standard; PTFE Insulated 16 AWG; 1000 V; 200 °C
Resistor Body	Anodized extruded Aluminium Profile
Ingress Protection	IP54

*Rated Continuous Working voltage (RCVV) = $\sqrt{P \cdot R}$ unless this exceeds the stated Maximum Working Voltage, in which case the lower of the two should always be used.

Aluminium Housed Resistor

Type HCH Series

ENVIRONMENTAL CHARACTERISTICS

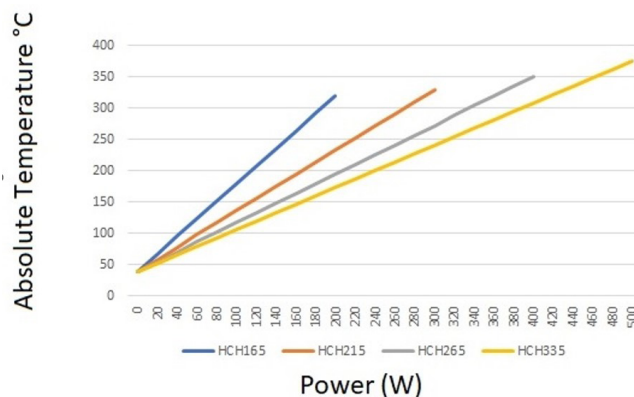
Characteristic	Requirement	Test Method
Load Life	$\Delta R \pm 5\%$	Resistors mounted in vertical orientation, leads downwards. RCWV 1000Hrs – 90 minutes on, 30 minutes off
Damp Heat Steady State	$\Delta R \pm 1\%$	Humidity chamber 40 °C / 95% humidity for 56 days
Insulation Resistance	>100 M Ω	Tested for insulation resistance with a calibrated meter at 1000 V
Dielectric Strength	Leakage Current <500 μ A	3500 VAC for 1m Terminal – Aluminium Body
Pulse Overload	No Physical Damage $\Delta R \pm 5\%$	Resistors mounted as per load life test. Specified overload power applied for 1, 5, and 40 seconds within a 120 seconds cycle comprising of both on and off periods. Test cycle repeated 10,000 times
Ingress Protection	IP54	IP Testing carried out at a NABL accredited test lab. The resistors were tested for dust and moisture ingress resistance under clauses 13.5.1, 13.5.2 and 14.2.4 and 14.3. Resistors passed the test without any issues.

PERFORMANCE SPECIFICATION

Type	HCH165	HCH215	HCH265	HCH335
Power Rating (W) @40°C	200	300	400	500
Max. Temperature °C	320	330	350	375
Resistance Range	6.8 Ω – 220 Ω	6.8 Ω – 220 Ω	10 Ω – 220 Ω	10 Ω – 220 Ω

For Higher / Lower Resistance Value please enquire

TEMPERATURE RISE CHART



OVERLOAD RATING

The resistors were tested by applying the specified overload power for 1 or 5 or 40 seconds within a 120 seconds cycle comprising of both on and off periods. These are equivalent to duty cycles of 0.83%, 4.16% and 33.3% which are typical braking cycles used in drive systems.

HCH165

Type	Value (Ω)	Power Rating (W) @ 40 °C	Pulse load (W) 40 °C 120 s Duty cycle		
			1 s Pulse	5 s Pulse	40 s Pulse
HCH165	6.8	200	7000	2200	450
	33		6200	2200	450
	82		6200	2000	450
	220		5800	2000	450

Aluminium Housed Resistor

Type HCH Series

HCH215

Type	Value (Ω)	Power Rating (W) @ 40 °C	Pulse load (W) 40 °C 120 s Duty cycle		
			1 s Pulse	5 s Pulse	40 s Pulse
HCH215	6.8	300	12000	4600	675
	22		12000	4600	675
	100		7500	4600	675
	220		7500	4600	675

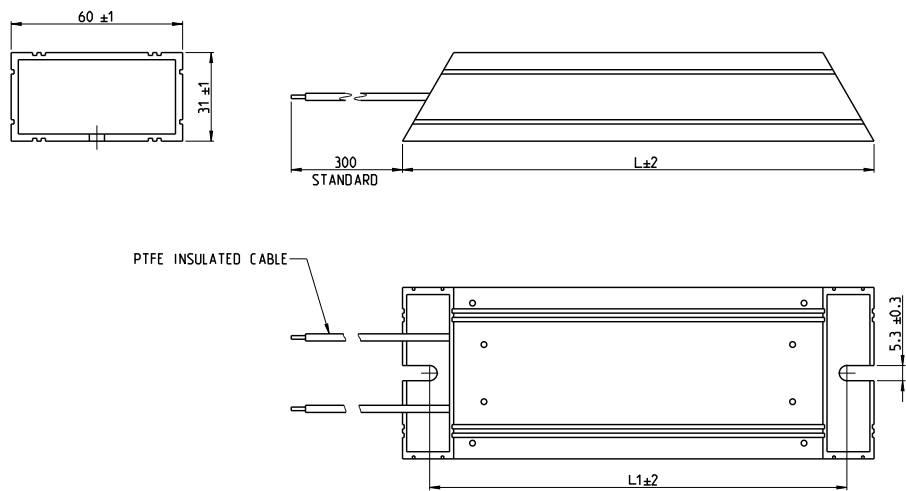
HCH215

Type	Value (Ω)	Power Rating (W) @ 40 °C	Pulse load (W) 40 °C 120 s Duty cycle		
			1 s Pulse	5 s Pulse	40 s Pulse
HCH265	10	400	15900	5800	900
	33		16200	5800	900
	100		10200	5800	900
	220		7500	5800	900

HCH335

Type	Value (Ω)	Power Rating (W) @ 40 °C	Pulse load (W) 40 °C 120 s Duty cycle		
			1 s Pulse	5 s Pulse	40 s Pulse
HCH335	10	500	23000	6200	1125
	33		23000	6200	1125
	100		15000	6200	1125
	220		12000	6200	1125

DIMENSIONS (Unit:mm)



Type	L (mm)	L1 (mm)
HCH165	165	146
HCH215	215	196
HCH265	265	246
HCH335	335	316

PACKAGING

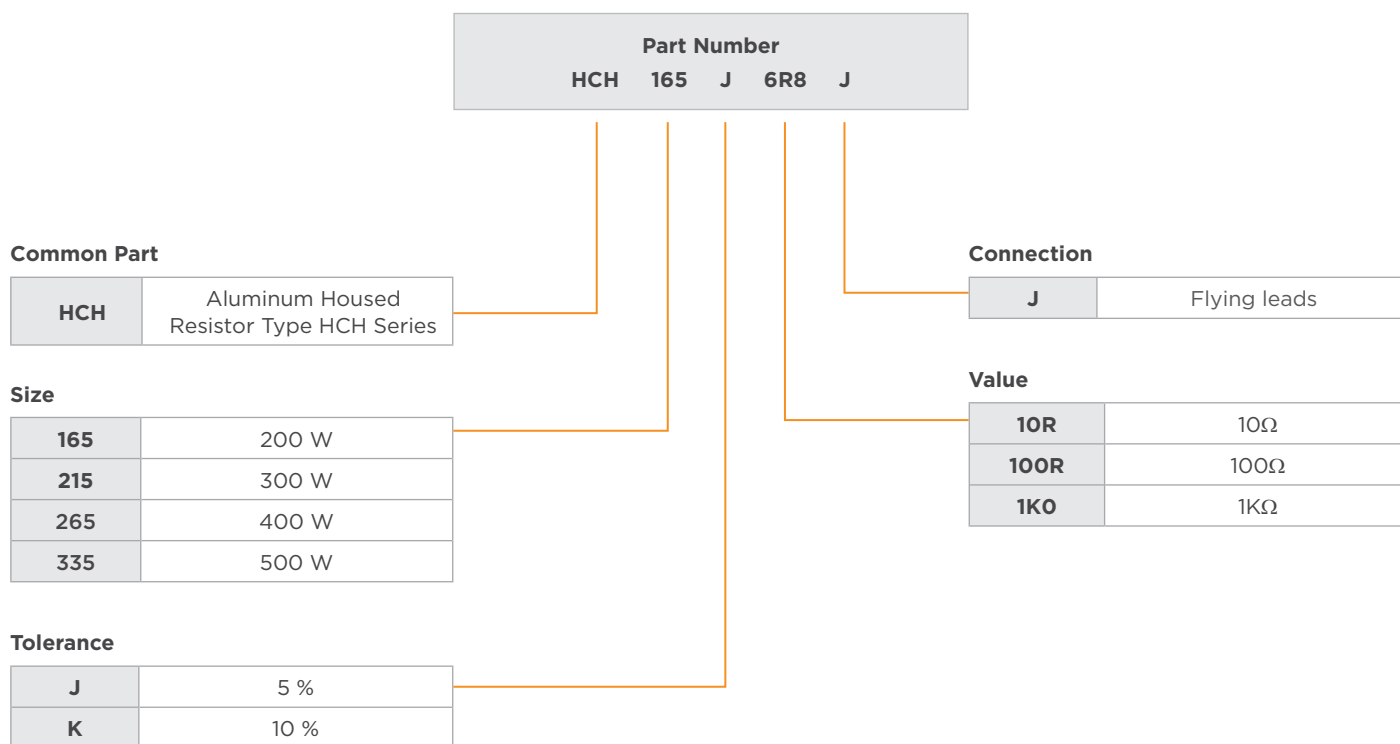
Resistors will be packaged individually in boxes.

MARKING

Resistors will be marked with

- Type
- Resistance value
- Tolerance Code
- Date / Batch code

ORDERING INFORMATION



[te.com](https://www.te.com)

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