Type HCH Series

Key Features

High Power overload capability

IP54 ingress protection

PTFE insulated Flying Leads for flexibility of connection



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

Characteristics – Electrical

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

*Rated Continuous Working voltage (RCWV) = √P*R unless this exceeds the stated Maximum Working Voltage, in which case the lower of the two should always be used.

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	6.8Ω – 220Ω	6.8Ω - 220Ω	10Ω - 220Ω	10Ω - 220Ω
For Higher / Lower Resistance Value please enquire				

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 120s Duty Cycle		
			1s Pulse	5s Pulse	40s Pulse
HCH165	6.8	200	7000	2200	450
HCH165	33	200	6200	2200	450
HCH165	82	200	6200	2000	450
HCH165	220	200	5800	2000	450

HCH215

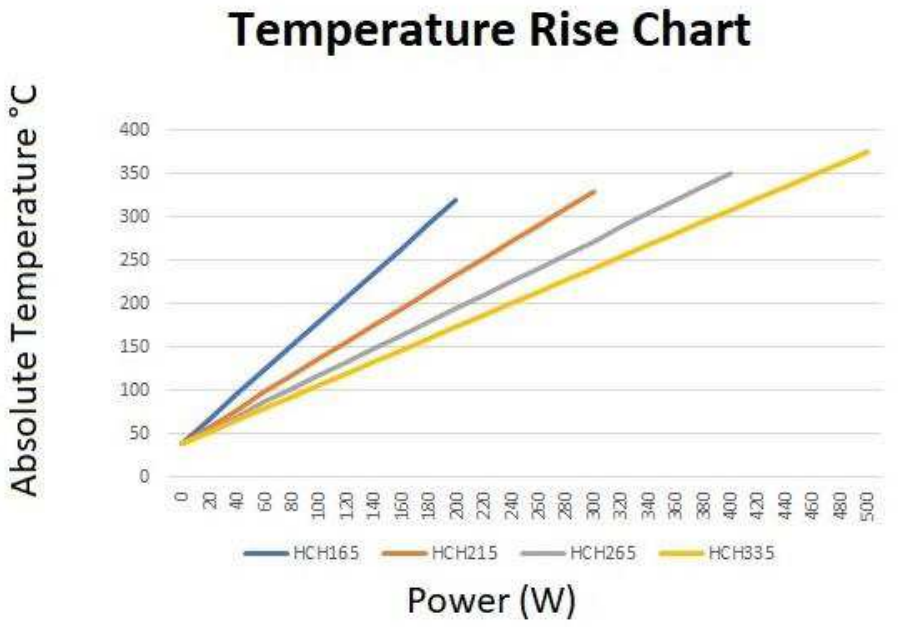
Type	Value (Ω)	Power Rating (W) @ 40°C	Pulse load (W) 40°C 120s Duty Cycle		
			1s Pulse	5s Pulse	40s Pulse
HCH215	6.8	300	12000	4600	675
HCH215	22	300	12000	4600	675
HCH215	100	300	7500	4600	675
HCH215	220	300	7500	4600	675

HCH265

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

HCH335

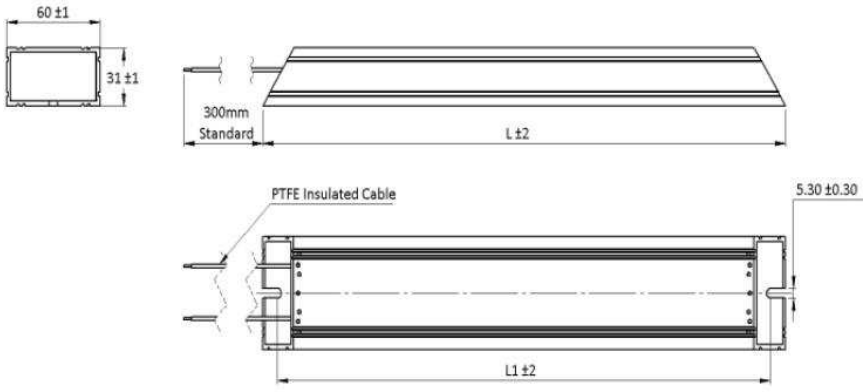
Type	Value (Ω)	Power Rating @ 40°C	Pulse load (W) 40°C 120s Duty Cycle		
			1s Pulse	5s Pulse	40s Pulse
HCH335	10	500	23000	6200	1125
HCH335	33	500	23000	6200	1125
HCH335	100	500	15000	6200	1125
HCH335	220	500	12000	6200	1125



Environmental Characteristics

Characteristic	Requirement	Test Method
Load Life	ΔR ±5%	Resistors mounted in vertical orientation, leads downwards. RCWV 1000Hrs – 90 minutes on, 30 minutes off
Damp Heat Steady State	ΔR ±1%	Humidity chamber 40°C/95% humidity for 56 days
Insulation Resistance	>100MΩ	Tested for insulation resistance with a calibrated meter at 1000V
Dielectric Strength	Leakage Current <500µA	3500VAC for 1m Terminal – Aluminium Body
Pulse Overload	No Physical Damage ΔR ±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.

Dimensions



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 and date / batch code.

How To Order

HCH	165	J	6R8	J
Series	**Size**	**Tolerance**	**Value**	**Connection**
HCH - Aluminium Housed Breaking Resistor	165 – 200W 215 – 300W 265 – 400W 335 – 500W	J – 5% K – 10%	10R - 10Ω 100R - 100Ω 1K0 – 1KΩ	J – Flying leads