Aluminium housed wire-wound resistors series HS
Data sheet

ARCOL

RoHS Compliant

Manufactured in line with the requirements of MIL 18546 and IEC 115, designed for direct heatsink mounting with thermal compound to achieve maximum performance.

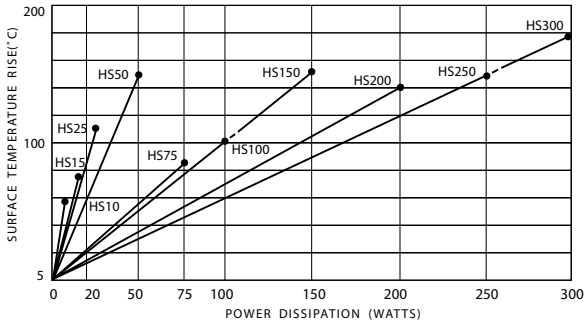
- High Power to volume
- Wound to maximise High Pulse Capability
- Values from R005 to 100K
- Custom designs welcome
- RoHS Compliant

Characteristics

Tolerance (Code):	Standard ±5% (J) and ±10% (K). Also available ±1% (F), ±2% (G) and ±3% (H)
Tolerance for low Ω values:	Typically ≥ R05 ±5% ≤ R047 ±10%
Temperature coefficients:	Typical values < 1K 100ppm Std. > 1K 25ppm Std. For lower TCR's please contact Arcol
Insulation resistance (Dry):	10,000 MΩ minimum
Power dissipation:	At high ambient temperature dissipation derates linearly to zero at 200°C
Ohmic values:	From R005 to 100K depending on wattage size
Low inductive (NHS):	Specify by adding N before HS Series code, e.g. NHS50
NHS ohmic value:	Divide standard HS maximum value by 4
NHS working volts:	Divide standard HS maximum working voltage by 1.414

Temp. Rise & Power Dissipation

Surface temperature of resistor related to power dissipation. The resistor is standard heatsink mounted using a proprietary heatsink compound.



Heat Dissipation

Heat dissipation: Whilst the use of proprietary heat sinks with lower thermal resistances is acceptable, uprating is not recommended. For maximum heat transfer it is recommended that a heat sink compound be applied between the resistor base and heat sink chassis mounting surface. It is essential that the maximum hot spot temperature of 200°C is not exceeded, therefore, the resistor must be mounted on a heat sink of correct thermal resistance for the power being dissipated.

Ordering Procedure

Standard Resistor. To specify standard: Series, Watts, Ohmic Value, Tolerance Code, e.g.: HS25 2R2 J

Non Inductive Resistor. To specify add N, e.g.: NHS100 10R J

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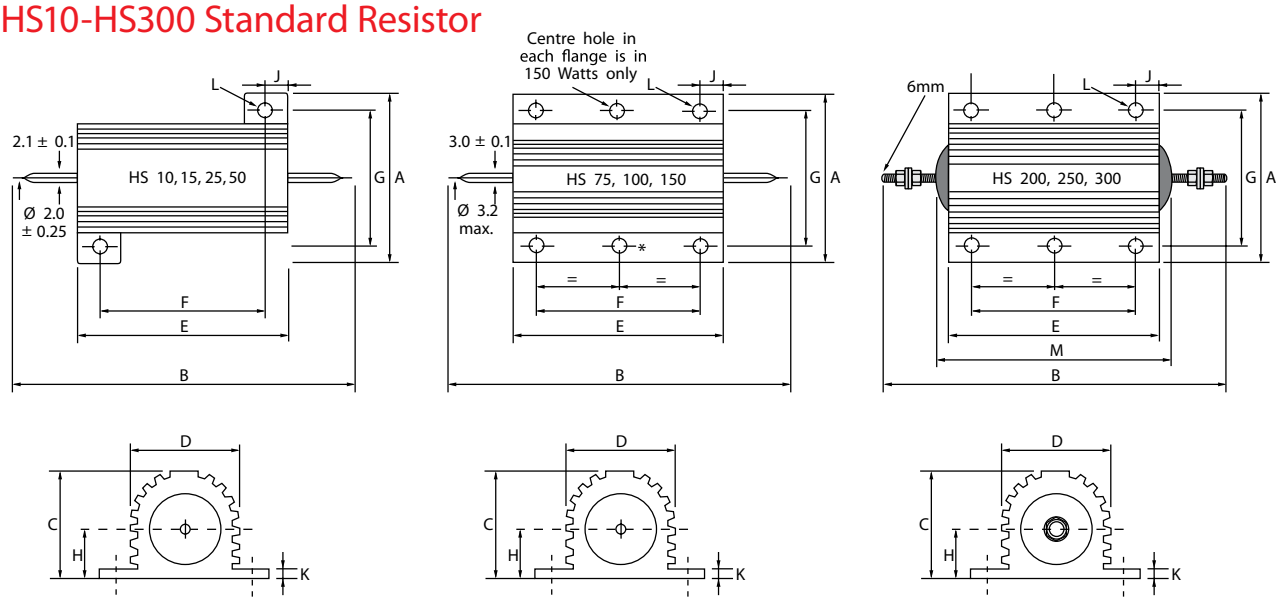
Electrical Specifications

Size	Style MIL-R 18546	Power rating on std. heatsink @25°C	Watts with no heatsink @25°C	Resistance range	Limiting element voltage	Voltage proof AC Peak	Voltage proof AC rms.	Approx weight gms	Typical surface rise HS mounted	Standard heatsink	
										AreaCM²	Thick-
HS10	RE 60	10	5.5	R005-10K	160	1400	1000	4	5.8	415	1
HS15	RE 65	15	8	R005-10K	265	1400	1000	7	5.1	415	1
HS25	RE 70	25	12.5	R005-36K	550	3500	2500	14	4.2	535	1
HS50	RE 75	50	20	R01-86K	1250	3500	2500	32	3.0	535	1
HS75		75	45	R01-50K	1400	6363	4500	85	1.1	995	3
HS100		100	50	R01-70K	1900	6363	4500	115	1.0	995	3
HS150		150	55	R01-100K	2500	6363	4500	175	1.0	995	3
HS200		200	50	R01-50K	1900	7070	5000	475	0.7	3750	3
HS250		250	60	R01-50K	2200	7070	5000	600	0.6	4765	3
HS300		300	75	R01-68K	2500	7070	5000	700	0.6	5780	3

HS10-HS300 Standard Resistor



Dimensions (mm)

Size	A Max	B Max	C Max	D Max	E Max	F±0.3	G±0.3	H Max	J Max	K Max	L ±0.25*	M Max
HS10	16.5	30.0	8.8	8.5	15.9	11.3	12.4	4.5	2.4	1.8	2.4	
HS15	21.0	36.5	11.0	11.2	19.9	14.3	15.9	5.5	2.8	1.8	2.4	
HS25	28.0	51.0	14.6	14.0	27.3	18.3	19.8	7.3	4.7	2.6	3.2	
HS50	29.7	72.5	14.8	14.2	49.1	39.7	21.4	8.5	5.2	2.6	3.2	
HS75	47.5	72.0	24.1	27.3	48.7	29.0	37.0	11.8	10.4	3.7	4.4	
HS100	47.5	88.0	24.1	27.3	65.2	35.0	37.0	11.8	15.4	3.7	4.4	
HS150	47.5	121.0	24.1	27.3	97.7	58.0	37.0	11.8	20.4	3.7	4.4	
HS200	72.5	145.7	41.8	45.5	89.7	70.0	57.2	20.5	10.4	5.5	5.1	103.4
HS250	72.5	167.0	41.8	45.5	109.7	89.0	57.2	20.5	10.4	5.5	5.1	122.4
HS300	72.5	184.4	41.8	45.5	127.7	104.0	59.0	20.5	12.4	5.5	6.6	141.4
* HS200-HS300 Watts is ± 0.45												

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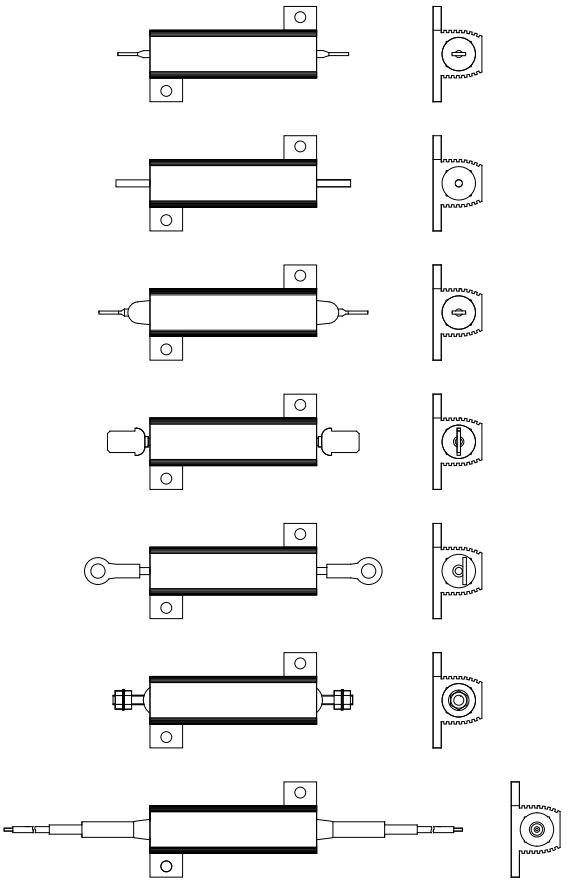
Terminations

The HS Range of Aluminium Housed Resistors has been designed for a variety of solder, cable, threaded and fast on terminations. If you need a special termination design for your application, please contact us for advice.

For electrical and mechanical specifications please refer to HS Series datasheet - Aluminium Housed Power Resistors.



HS _ _ _ - Standard Pressed Termination
Available on HS10-50, 75-150

HS _ _ _ J - Unpressed Termination
Available on HS10-50, 75-150

HS _ _ _ X - Extended Mouldings
To increase creepage and strike distance between terminal and housing. Available on HS10-50, HS75-150
Also available on HS200-300 E6 using stud mounted resin disk

HS _ _ _ M - 6.35mm Spade Termination
Amp style push on connection
Available on HS10-50, HS75-150

HS _ _ _ Drawing No. - Attached Termination To Drawing
Available on HS10-50, HS75-150

HS _ _ _ E - Threaded Stud Termination
Available on HS25-50 E3, HS75-150 E4 or E6, HS200-300 E6

HS _ _ _ F - Leaded Termination
Leads fitted and insulated externally after moulding
Available with standard lead lengths on HS10-50 150mm, HS75-150 150mm, HS200-300 300mm
Extra length available on request at extra charge

For other special terminations, high voltage, low inductance windings, water cooled type HSW600 etc. please contact Arcol sales.