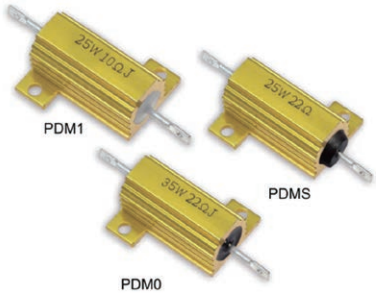
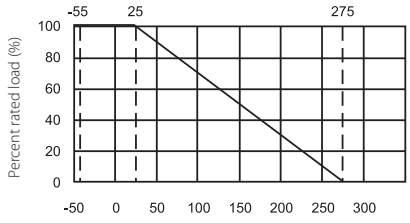
Power Dissipation Mount Fixed Resistors

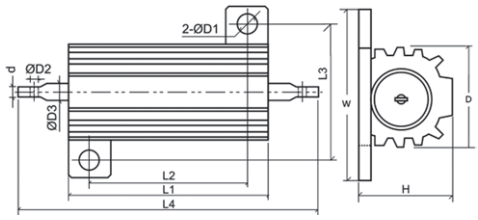
Feature

- With Aluminum Shell for a good heat dissipation, suitable for board mount
- Thin & lightweight body with big power rating
- Application: Power Supply, Adapter, Machine

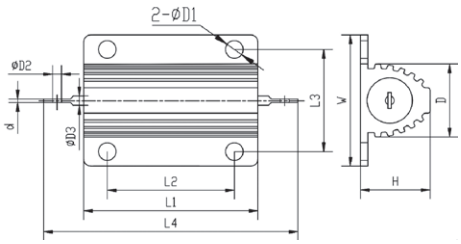


Derating Curve

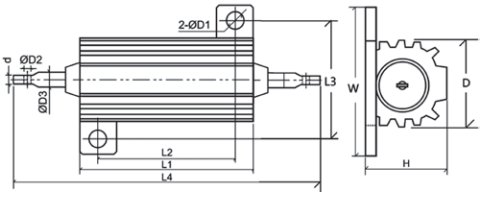




PDM5W~50W



(PDM1 75W、100W)



(PDMS 25W~50W)

Type	L1±1	L2	L3	L4±1.5	W±1	H±1	D±1	d±0.2	D1	D2±0.5	D3	Resistance range	Special high value
PDM 5W	15.5	11±0.5	12±0.5	32.5	16±0.5	8.0	8.0	0.3	2.0+0.5/-0.2	1.3	1±0.05	0.5Ω~1KΩ	1.8KΩ
PDM10W	20.5	15.2±0.5	17.2±0.5	40.5	22.3±0.5	12.2	11.0	0.8	2.5+0.5/-0.2	2.0	2±0.1	1Ω~1.5KΩ	5KΩ
PDM25W	28.0	18.2±0.5	20.2±0.5	45.5	30.3±0.5	16.0	13.5	0.8	3.0+0.5/-0.2	2.0	2±0.1	5.1Ω~8.2KΩ	12KΩ
	28.0	18±0.5	19.0±0.5	49.0	27±1	14.0	13.5	0.8	4+0.5/-0.2	/	2±0.1	5.1Ω~8.2KΩ	12KΩ
PDM35W	34.5	24.2±0.5	20.2±0.5	56.5	30±0.5	16.3	16.3	0.8	3.0+0.5/-0.2	2.0	2±0.1	5.1Ω~8.2KΩ	15KΩ
PDM50W	50.5	40.2±0.5	20.2±0.5	75.0	30.3±0.5	15.7	15.5	0.8	3.0+0.5/-0.2	2.0	2±0.1	5.1Ω~20KΩ	35KΩ
	50.0	40±1	21.5±0.5	78.5	30±1	16.0	15.5	0.8	3.5±0.5	/	2±0.1	5.1Ω~20KΩ	35KΩ
PDMS25W	28.0	18±0.5	19±1	49.0	27±0.5	14.0	13.5	0.8	4±0.5	2.0	2±0.1	5.1Ω~8.2KΩ	22KΩ
PDMS50W	50.0	40±0.5	21.5±1	75.0	30±0.5	16.0	15.5	0.8	3.5±0.5	2.0	2±0.1	5.1Ω~20KΩ	35KΩ
PDM-1 75W	66.0	36±0.5	37±1	88.0	47.5±1	26.0	27.0	1.1	4.5±0.5	2.0	2.3±0.2	1Ω~20KΩ	-
PDM-1 85W	75.5	40±0.5	20.5±1	100	29±1	15.5	15.5	0.8	3.5±0.5	2.0	2±0.1	1Ω~20KΩ	-
PDM-1 100W	98.0	72±1	37±1	120	48±1	26.0	27.0	0.8	4.5±0.5	2.0	2±0.1	1Ω~20KΩ	-

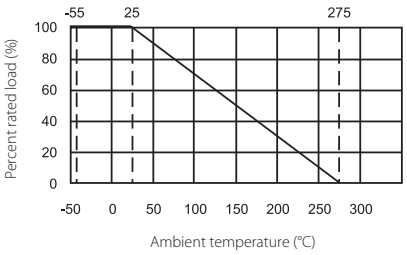
Remark: More detail, please contact our sales.

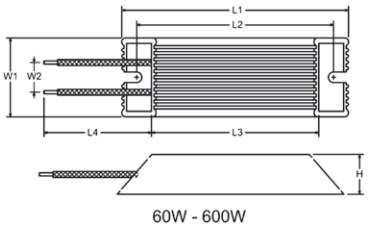
High Power Wire-wound Aluminum Case Resistors

Feature

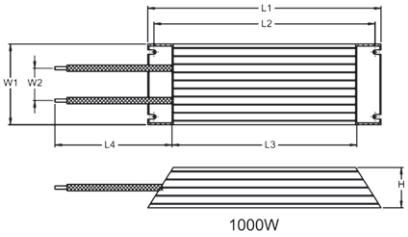
- Anti-vibration, high stability
- Excellent transient current impact capability, suitable for the start of the inverter under harsh conditions
- Application: Frequency Conversion Equipment, such as Elevator, Freezer, Crane, Lift etc.

Derating Curve





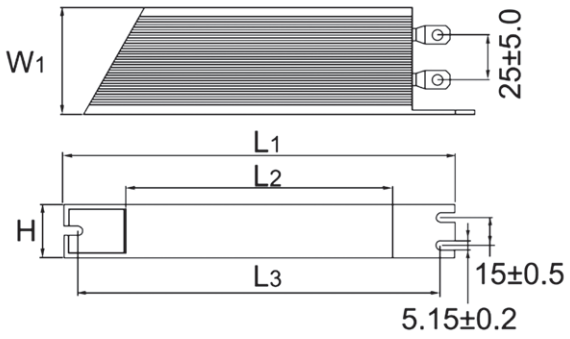
60W - 600W



1000W

Type	L1±2	L2±2	L3±2	L4±10	W1±2	W2±5	H±2	Resistance Range
HEWR60W	115	100	80	190	40	15	20	2Ω~2.5KΩ
HEWR80W	140	125	105	200	40	15	20	1Ω~3KΩ
HEWR100W	140	125	100	240	60	25	30	1Ω~4KΩ
HEWR100WS	165	150	125	240	40	15	20	1Ω~4KΩ
HEWR120W	190	175	150	240	40	15	20	1Ω~5KΩ
HEWR150W	215	200	175	240	40	15	20	1Ω~6KΩ
HEWR200W	165	150	125	255	60	25	30	1Ω~7KΩ
HEWR300W	215	200	175	255	60	25	30	1Ω~8KΩ
HEWR400W	265	250	225	255	60	25	30	0.5Ω~10KΩ
HEWR500W	335	320	295	255	60	25	30	0.5Ω~12KΩ
HEWR600W	335	320	295	255	60	25	30	0.5Ω~12KΩ
HEWR1000W	400	385	340	255	100	25	50	1Ω~15KΩ

HBWR Lead Type-HBWR



Type	L1±2	L2±2	L3±2	W1±2	H±2	Resistance Range
HBWR200W	190	160	165	30	60	1Ω~7KΩ
HBWR300W	240	210	215	30	60	1Ω~8KΩ
HBWR400W	290	260	265	30	60	0.5Ω~10KΩ
HBWR500W	360	330	335	30	60	0.5Ω~12KΩ
HBWR600W	360	330	335	30	60	0.5Ω~12KΩ

Performance Specification

Temperature coefficient	<20Ω:±400PPM; ≥20Ω:±350PPM
Short-time Overload	ΔR/R≤±(5%+0.05Ω), with no evidence of mechanical damage
Dielectric withstanding voltage	No evidence of flashover, mechanical damage.
Rapid change of temperature	ΔR/R≤±(2%+0.05Ω), with no evidence of mechanical damage
Humidity (Steady State)	ΔR/R≤±(5%+0.05Ω), with no evidence of mechanical damage
Load life in humidity	ΔR/R≤±(5%+0.05Ω), with no evidence of mechanical damage
Load life	ΔR/R≤±(5%+0.05Ω), with no evidence of mechanical damage

Ordering Procedure (Example: HEWR200W ±5% 10Ω B/B)

H E W R A 0 J 0 1 0 0 2 0 0

Product Type:
HEWR=HEWR
HBWR=HBWR

Wattage:
00=for power rating over 100W, please indicate the power rating at the last 3 digits of the part No.
A0=Terminal Type
B0=Cable Type

Tolerance :
J = ± 5%
K = 10%

Resistance Value:
5%,10%(E-24 series):
The 1st digit is "0", the 2nd & 3rd digits are for the signifcant fgures of the resistance and the 4th indicate the numbers of zeros following

Additional information:
200=200W, 300=300W,
400=400W, 500=500W,
600=600W

New/Old Part.no Contrast

New Part.no	Old Part.no
HEWRJ*******	HPAR**J*******

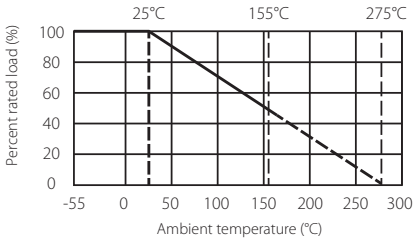
Remark: For more details, please check page 135, Part No. System

Power Alloy Wire-wound Resistors

Feature

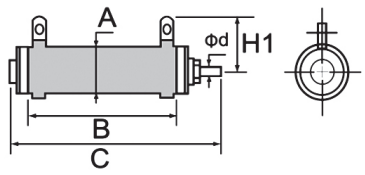
- Multi-terminal types & variable types available
- Small in size but capable of carrying high power load
- Resistance value unchanged after long use, good resistivity to short time overload
- High resistivity to heat, small resistance temperature coefficient and the change in resistance with temperature being linear
- Too low or high ohmic value can be supplied on a case to case basis
- Adjustable & Multi-Resistor type is available
- Non-Inductive type is available

Derating Curve

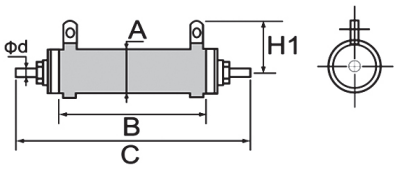


Power Wire-wound Resistors-QH&QL Type

QH Type

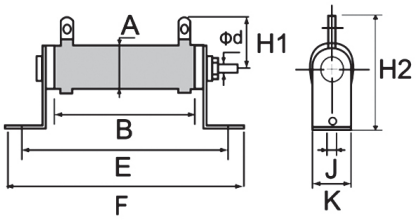


(QH Type 20W~40W)

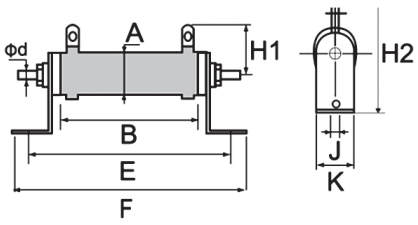


(QH Type 50W~600W)

QL Type



(QL Type 20W~40W)



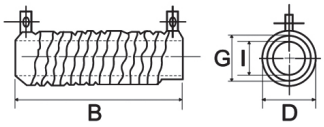
(QL Type 50W~600W)

Type	Dimension (mm)										Resistance range
	A±2	B	C±2	E	F	H1±2	H2±2	J±1	K±1	Φd±0.05	
QH/QL20W	22	50±2	70	75±2	102±2	25	50	5	19	4	1Ω~10KΩ
QH/QL25W	22	60±2	81	84±2	110±2	25	50	5	19	4	2Ω~12KΩ
QH/QL30W	22	75±2	95	99±2	126±2	25	50	5	19	4	2Ω~15KΩ
QH/QL40W	22	90±2	112	114±2	141±2	25	50	5	19	4	2Ω~20KΩ
QH/QL50W	30	75±2	110	103±2	133±2	34	64	6.3	27	5	3Ω~25KΩ
QH/QL60W	30	90±2	126	117±2	147±2	34	64	6.3	27	5	3Ω~30KΩ
QH/QL80W	30	115±2	150	143±2	173±2	34	64	6.3	27	5	3Ω~40KΩ
QH/QL100W	30	140±2	173	166±2	197±2	34	64	6.3	27	5	3Ω~50KΩ
QH/QL120W	30	165±2	200	193±2	223±2	34	64	6.3	27	5	4Ω~60KΩ
QH/QL150W	30	195±2	230	224±2	254±2	34	64	6.3	27	5	4Ω~70KΩ
QH/QL200W	30	254±2	289	282±2	312±2	34	64	6.5	27	5	5Ω~100KΩ
QH/QL300W	42	254±2	292	285±2	332±2	45	87	6.5	39	5	8Ω~150KΩ
QH/QL400W	42	330±3	364	364±3	410±3	45	87	6.5	39	5	10Ω~200KΩ
QH/QL600W	42	420±3	458	451±3	498±3	45	87	6.5	39	5	10Ω~200KΩ

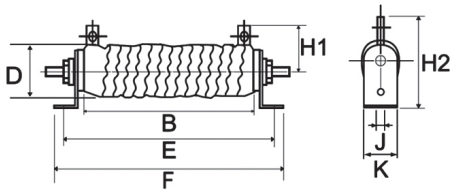
Remark: More detail, please contact our sales.

Power Ribbon Wire-wound Resistors-QR&QRZG Type

QR Type



QRZG Type



Type	Dimension (mm)										Resistance range
	B	D±4	E	F	G±2	H1±2	H2±2	I±2	J±1	K±1	
QR/QRZG120W	115±2	36	143±2	173±2	28	34	64	16	6.3	27	0.2Ω~4Ω
QR/QRZG150W	140±2	36	166±2	197±2	28	34	64	16	6.3	27	0.3Ω~5Ω
QR/QRZG180W	165±2	36	193±2	223±2	28	34	64	16	6.3	27	0.3Ω~6Ω
QR/QRZG225W	195±2	36	224±2	254±2	28	34	64	16	6.3	27	0.4Ω~8Ω
QR/QRZG300W	254±2	36	282±2	312±2	28	34	64	16	6.3	27	0.5Ω~10Ω
QR/QRZG450W	254±2	48	285±2	332±2	40	45	87	25	6.5	39	0.8Ω~15Ω
QR/QRZG600W	330±3	48	364±3	410±3	40	45	87	25	6.5	39	1Ω~20Ω
QR/QRZG750W	300±3	58	332±3	384±3	50	57	102	34	8	48	1Ω~75Ω
QR/QRZG1000W	390±3	58	423±3	475±3	50	57	102	34	8	48	1Ω~100Ω

Ordering Procedure (Example: QRZG 225W ±5% 1.8Ω B/B)

Q R Z G 0 0 J 0 1 8 J 2 2 5

Product Type:
QH00=QH Type
QL00=QL Type
QR00=QR Type
QRZG=QRZG Type

Wattag:
00=for power rating over 100W, please indicate the power rating at the last 3 digits of the part No.

Tolerance:
J = ± 5% K = 10%

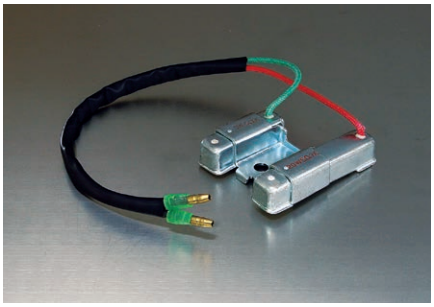
Resistance Value:
5%,10%(E-24 series):
The 1st digit is "0", the 2nd & 3rd digits are for the signifcant fgures of the resistance and the 4th indicate the numbers of zeros following

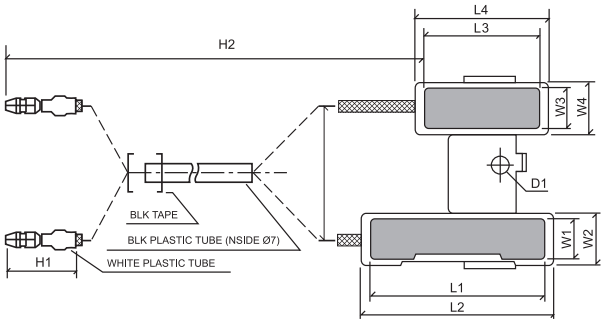
Additional information:
100=100W, 120=120W
150=150W, 180=180W
225=225W, 300=300W
450=450W, 600=600W
750=750W, 1KW=1000W

Remark: For more details, please check page 135, Part No. System

Bilateral Cement Fixed Resistor-BCR Type

- Small size & sturdy mechanically safe
- High safety standard
- Application: Automotive

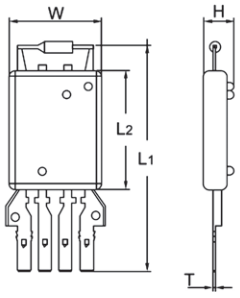


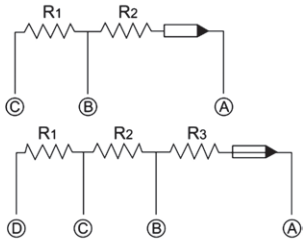


Type	L1±0.5	L2±1	L3±0.5	L4±1	W1±0.5	W2±1	W3	W4±1	H1 Max.	H2+10/-0	D1+0.5/-0
BCR20W+5W	64	66	42	44	13	15	13±0.5	15	30	250	6.5

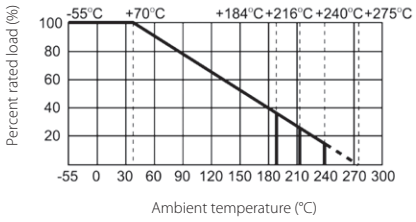
Thermal Fuse Wire-wound Resistors-ASSY Type

- High quality non-flame coating
- Self fusing
- High current load and pulse capacity
- Application: Automobile





Derating Curve

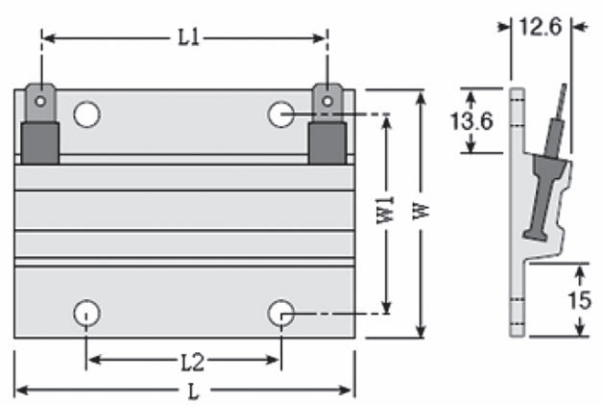


Type	L1±3	L2±3	W±3	H(MAX)	T±0.2	Resistance Range
ASSY-4 Terminal	74	43	39	13	0.8	0.1Ω~10Ω
ASSY-5 Terminal	80	43	34	13	0.8	0.1Ω~10Ω

Remark: More detail, please contact our sales.

High Power Wire-wound Flat Aluminum Shell Fixed Resistors-HFWR Type

- Completely flame-retardant material
- Anti-vibration, high stability
- Flat structure with great saving space
- Wire-wound process, good resistance to current impact
- Application: Overload current protection of lithium battery pack in the start of new energy vehicle

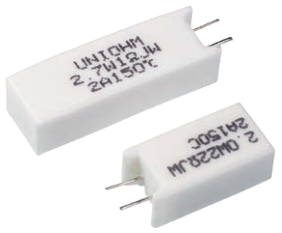


Type	L±1.0	L1±0.5	L2±0.3	W±0.3	W1±0.3
HFWR90W	70	53	39.7	51	41
HFWR330W	280	263	2*100	51	41

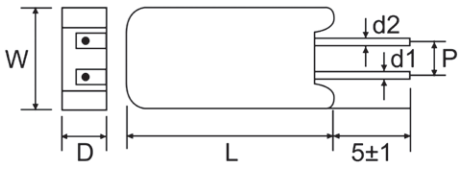
Remark: More detail, please contact our sales.

Cement Thermal Fusible Resistors

- Self-extinguishing
- Excellent flame & moisture resistance
- Extremely small & sturdy mechanically safe
- Non-inductive type available
- Circuit protection applied to industrial and motor control
- Old Part.NO: PF2A~PF10D Series

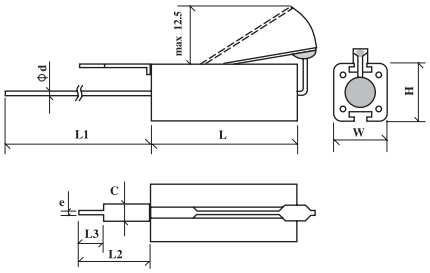


Type	FTR2~FTR10
Thermal Cut-Off Temp.	98°C ~235°C
Rated current	2A or 10A
Rated voltage	AC 250V
Wire-wound Resistance Range (±5%、±10%)	0.22Ω~1.8KΩ



Vertical Type Shrapnel Fuse Resistors - PHF0 Type

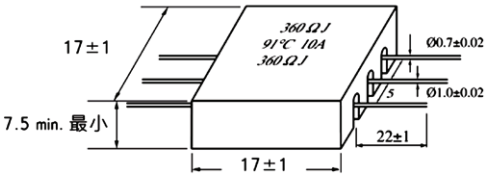
- Elastic sheet metal, solder dot fuse, reliable circuit cut off function
- Fusing Temperature 220±20°C
- Application: Over temperature protection of industrial power supply



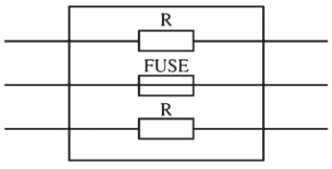
Type	L±1.0	W±1.0	H±1	L1±3	L2±1.5	L3±0.5	C±0.1	e±0.1	Φd±0.05
PHF-2W	25.0	9.0	10.0	38.0	13.0	4.5	3.0	0.9	0.75

Array Type Cement Temperature Fusing Resistors - TFRC Type

- Multi lead arrange encapsulation & space saving
- Excellent flame &miosture resistance
- Application: Over temperature protection of industrial power supply



Type	Fusing Temp.	Rated current	Rated voltage
TFRC-2W	91°C	10A	250V



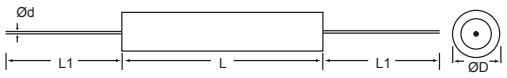
Remark: More detail, please contact our sales.

Columnar Type Cement Fixed Resistors-QHO Type

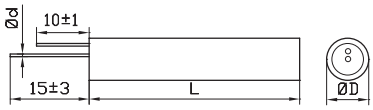
- Circular ceramic
- Excellent insulation and moisture resistance
- Winding process, good resistance to load
- Application: Power supply of frequency converter

Type	L±1	L1±3	ΦD±1	d±0.05
QHO 4W	43	30	8	0.75
QHO 5W	45	30	8	0.75
QHO 7W	50	30	9	0.75
QHO 9W	60	30	9	0.75
QHO 11W	65	30	9	0.75
QHO 17W	75	30	9	0.75

QHO-1



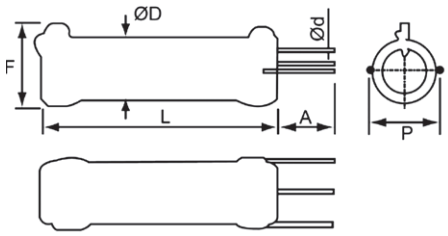
QHO-2



Multi-Lead Wire-wound Fixed Resistors - KNHW Type

- All materials are inorganic and non-flammable
- Super heat dissipation & High stability
- Special design of Multi-lead wire easy to assembled on PCB
- Application: Charging or discharging resistance of electrical equipment such as elevator

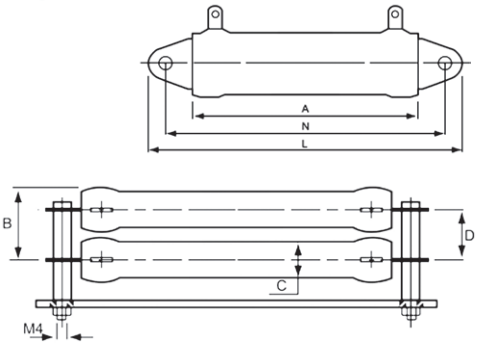
Type	L±1	A±1	F±1	P±1	ΦD±1	d±0.05
KNHW10W	45	10	15	12	11.5	1.0
KNHW18W	40	12	18	15	14.5	1.0
KNHW25W	50	12	18	15	14.5	1.0
KNHW40W	65	12	20	17	16.5	1.0



High Power Flat Wire-wound Fixed Resistors - KNHB Type

- All materials are inorganic and non-flammable
- Can withstand High Voltage pulse in short-time
- Can use in single or in-piles
- Application: Charging or discharging resistance of electrical equipment such as elevator

Type	A±2	B±1	C±0.5	D±1	L±1	N±2
KNHB21W	32	19	12	14	68	51
KNHB31W	51	19	12	14	87	70
KNHB53W	90	19	12	14	126	109
KNHB68W	120	19	12	14	156	140
KNHB91W	153	19	12	14	189	173

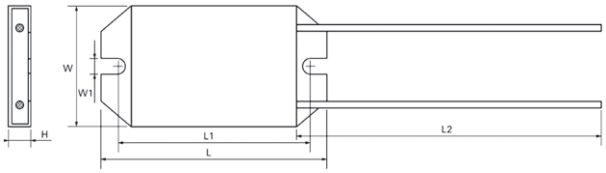


Remark: More detail, please contact our sales.

High Power Wire-wound Flat Aluminum Shell Fixed Resistors - HPWR Type

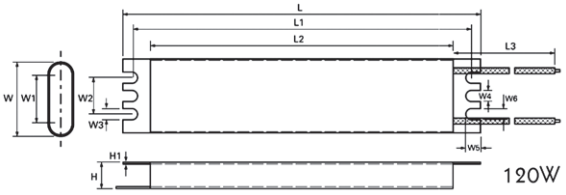
- Anti-vibration, high stability
- Easy to assembled on PCB
- Application: Power supply of frequency converter

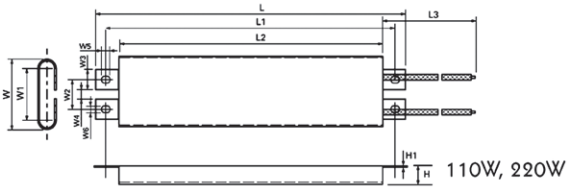
Type	L±1	L1±0.5	L2 $^{+20}_{-0}$	W±0.5	W1±0.2	H±0.5
HPWR 40W	85	72	300	45	5.5	8.2



High Power Wire-wound Iron Shell Fixed Resistors - HPWR Type

Type	L+0/-5	L1±0.5	W±0.5	H±0.5	L3±5
HPWR110W	105	91.5	44.6	11.5	300
HPWR120W	195	184	40	14	250
HPWR220W	200	187	44.6	11.5	250

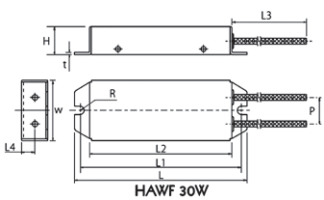


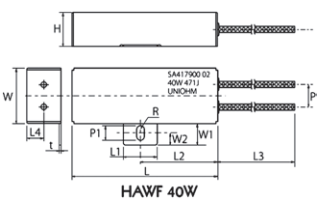


High Power Wire-wound Iron-Case Resistors - HAWF Type

- Anti-vibration, high stability
- Excellent transient current impact capability, suitable for the start of the inverter under harsh conditions
- Application: Frequency Conversion Equipment, such as Elevator, Freezer, Crane, Lift etc.

Type	L±1	W±1	H±1	L1±1
HAWF30W	97	32	15	90.5
HAWF40W	85	32	20	20

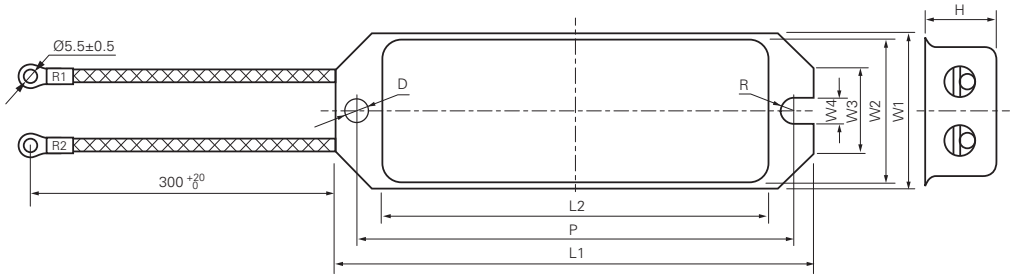




Remark: More detail, please contact our sales.

High Power Wire-wound Aluminum Shell Resistance - HAWR Type

- Anti-vibration, high stability
- Excellent transient current impact capability, suitable for the start of the inverter under harsh conditions
- Application: Frequency Conversion Equipment, such as Elevator, Freezer, Crane, Lift etc.



Type	L1±1	L2±2	P±1	W1±1	W2±1	W3±0.5	W4±0.2	D±0.2	H±1
HAWR60W	100	75.5	90	30	28	16.5	4.5	4.6	16.5
HAWR80W	130.5	104.5	117.5	43	38.5	22	6.0	6.0	21
HAWR100W	130	110	118	42	39	22.5	6.0	6.0	20

Remark: More detail, please contact our sales.