

# POWER (RIBBON) WIRE-WOUND RESISTORS

## Features

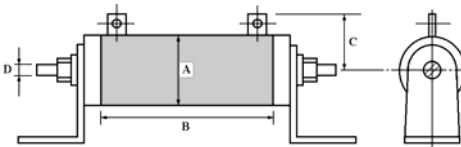
- Multi-terminal types and variable types available
- Capable of carrying high power load
- Resistance value unchanged after long use, good resistively to short time overload
- High resistance to heat, low temp. coefficient, and the change in resistance with temperature is linear
- Too low or too high ohmic value can be supplied on a case to case basis



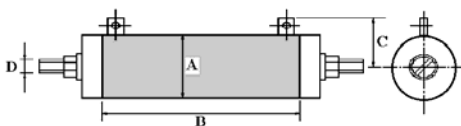
### Rating & General Specifications:

Part No.	Style	Power Rating at 70°C	Dimension (mm) ±1				Resistance Range
			A	B	C	D	
QH/QL0020	QH/QL-20W	20W	19	50	19	5	1Ω ~ 10KΩ
QH/QL0025	QH/QL-25W	25W	19	60	19	5	2Ω ~ 12KΩ
QH/QL0030	QH/QL-30W	30W	19	75	19	5	2Ω ~ 15KΩ
QH/QL0040	QH/QL-40W	40W	19	90	19	5	2Ω ~ 20KΩ
QH/QL0050	QH/QL-50W	50W	28	75	31	5	3Ω ~ 25KΩ
QH/QL0060	QH/QL-60W	60W	28	90	31	5	3Ω ~ 30KΩ
QH/QL0080	QH/QL-80W	80W	28	115	31	5	3Ω ~ 40KΩ
QH/QL00....100	QH/QL-100W	100W	28	140	31	5	3Ω ~ 50KΩ
QH/QL00....120	QH/QL-120W	120W	28	165	31	5	4Ω ~ 60KΩ
QH/QL00....150	QH/QL-150W	150W	28	195	31	5	4Ω ~ 70KΩ
QH/QL00....200	QH/QL-200W	200W	28	254	31	5	5Ω ~ 100KΩ
QH/QL00....300	QH/QL-300W	300W	40	254	33	5	8Ω ~ 150KΩ
QH/QL00....400	QH/QL-400W	400W	40	330	38	5	10Ω ~ 200KΩ
QH/QL00....600	QH/QL-600W	600W	40	420	38	5	10Ω ~ 200KΩ

QL Type



QH Type



### Ordering Procedure: (Ex.: QRZG 225W, 5%, 1.8Ω, B/B)

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

#### Resistor Type:

QH00 = QH Type, HAWR = HAWR,  
QL00 = QL Type, HMWR = HMWR,  
QR00 = QR Type, HPWR = HPWR,  
QRZG = QRZG Type

#### Wattage:

20 = 20W, 25 = 25W, 30 = 30W, 40 = 40W, 50 = 50W,  
60 = 60W, 80 = 80W  
00 = for power rating over 100 Watt, please indicate the power rating at the last 3 digits of the part no.

#### Tolerance:

J = ±5%  
K = ±10%

#### Resistance Value:

E-24 series: the 1<sup>st</sup> digit is "0", the 2<sup>nd</sup> & 3<sup>rd</sup> digits are for the significant figures of the resistance and the 4<sup>th</sup> indicate the number of zeros.

#### Packing Type:

B = Bulk/Box

#### Packing Qty:

0 = for Bulk/Box packing

#### Additional Information:

0 = NIL

\* More explanation on part no, please see details on pages 79-80.

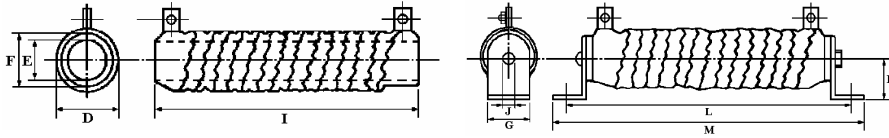
Remark: For power rating beyond 100 Watt, please indicate in the last 3 digits the wattage needed.

100 = 100W 300 = 300W 120 = 120W 450 = 450W 225 = 225W 600 = 600W

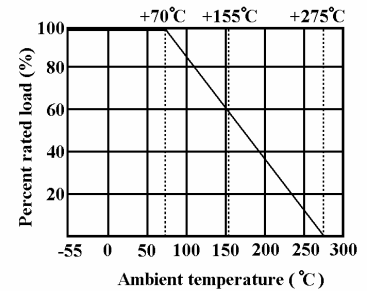
# POWER (RIBBON) WIRE-WOUND RESISTORS

## QR Type

## QRZG Type



## Derating curve



Part no.	Max. Watt	Dimension (mm) ± 1									Resistance Range
		D	E	F	G	H	J	I	L	M	
QR00....120 QRZG....120	120W	33	16	28	26	22	6	115	148	167	0.2Ω ~ 4Ω
QR00....150 QRZG....150	150W	33	16	28	26	22	6	140	173	192	0.3Ω ~ 5Ω
QR00....180 QRZG....180	180W	33	16	28	26	22	6	165	198	217	0.3Ω ~ 6Ω
QR00....225 QRZG....225	225W	33	16	28	26	22	6	195	228	247	0.4Ω ~ 8Ω
QR00....300 QRZG....300	300W	33	16	28	26	22	6	254	287	306	0.5Ω ~ 10Ω
QR00....450 QRZG....450	450W	48	25	40	40	40	9	254	308	334	0.8Ω ~ 15Ω
QR00....600 QRZG....600	600W	48	25	40	40	40	9	330	384	410	1Ω ~ 20Ω

## Performance Specifications

**Temperature coefficient** < 20Ω: ±400PPM/°C; ≥20Ω: ±300PPM/°C

**Short-time overload** ΔR/R ±(2.0% + 0.05Ω), with no evidence of mechanical damage.

**Terminal strength** No evidence of mechanical damage.

**Resistance to soldering heat** ΔR/R ±(1.0% + 0.05Ω), with no evidence of mechanical damage.

**Solderability** Min. 95% coverage

**Load life in humidity** ΔR/R ±(5.0% + 0.05Ω), with no evidence of mechanical damage.

**Load life** ΔR/R ±(5.0% + 0.05Ω), with no evidence of mechanical damage.

*\*More details, please see pages 77-78.*