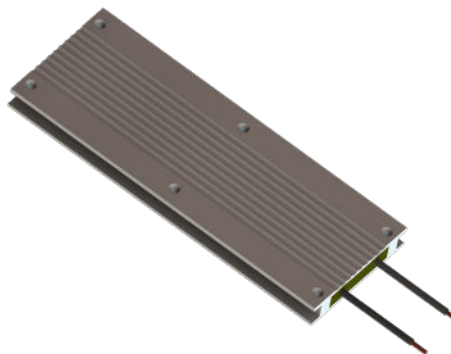


FEATURES

- Resistances from 0.001 Ohm to 500 Ohms
- Power rating to 2500 Watt
- Resistance tolerances to $\pm 0.5\%$
- TCR to ± 50 ppm/K
- Load stability to 0.1%
- Customized resistance values



RoHS*
COMPLIANT

TABLE 1 – SPECIFICATIONS

TYPE		FHR 2-	8065	80110	80216	80320	80370
Resistance Range (Ohms)			0.001 to 400	0.001 to 500	0.002 to 500		0.005 to 500
Power Rating	Free air 70°C		24 W	32 W	60 W	80 W	90 W
	With heatsink		350 W	600 W	1200 W	2000 W	2500 W
Tolerances			0.5% / 1% / 2% / 5%; other tolerances upon request				
Thermal Resistance			0.16 K/W	0.09 K/W	0.04 K/W	0.026 K/W	0.022 K/W
Stability (1000h)			0.1% / 0.2% / 0.5% (depends on stress)				
Temperature Coefficient			± 50 ppm/K (20°C to 60°C)				
Max. Current			60 A upon request special cable up to 150 A				
Inductivity			< 50nH				
Capacity against Housing			500 pF	850 pF	1.7 nF	2.5 nF	2.9 nF
Voltage Proof			1.5 kVDC (higher upon request)				
Thermal EMF			<0.1 μ V/K				
Operating Temperature Range			-40°C to 130°C				
Resistor Material			CuNiMn-Foil				
Substrate			Anodized aluminium				
Housing			Anodized aluminium				
Connector Material			Cu-Cable / 4mm ² / 500mm lenght (other upon request / AWG possible)				
Terminals			2				

ORDERING INFORMATION

Part Number - Resistance - Contact - Tolerance

FHR 2-80370 0R100 D 0.5%

FIGURE 1 – TEMPERATURE COEFFICIENT

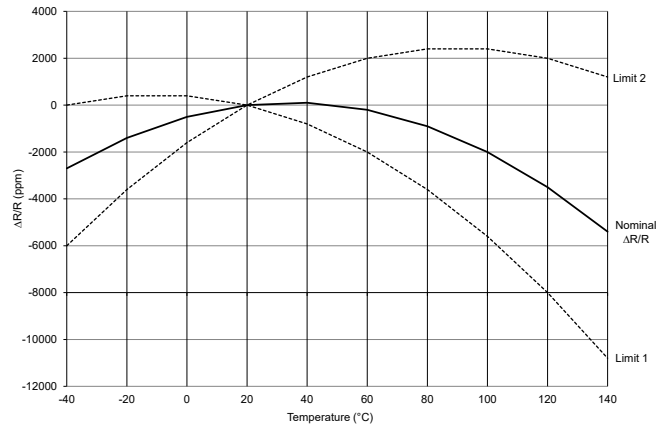
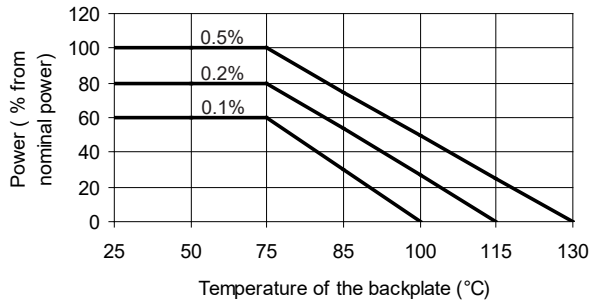


FIGURE 2 – DERATING



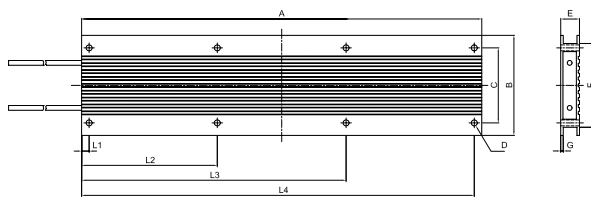
Power Rating Notes -

The FHR Series Resistors must be attached to a suitable heat-sink. The maximum internal resistor temperature is 130°C. To specify an appropriate heatsink use the following formula :

$$R_{0H} = \frac{T_{MAX} - (P \times R_{0R}) - T_A}{P}$$

Where: R_{0H} = Thermal Resistance of Heatsink (K/W)
 R_{0R} = Thermal Resistance of Resistor (K/W)
 T_{MAX} = Maximum Temperature of Resistor
 T_A = Ambient Temperature of Heatsink (°C)
 P = Power Through Resistor (W)

FIGURE 3 – DIMENSIONS in MM (inches)



Dimension	
B ±0.3(±0.012)	80.00 (3.15)
C ±0.3(±0.012)	60.00 (2.36)
D ±0.2(±0.008)	Ø4.00 (Ø0.19)
E ±0.2(±0.008)	15.00 (0.59)
F ±0.3(±0.012)	67.00 (2.64)
G ±0.1(±0.004)	2.00 (0.08)

Dimension	8065	80110	80216	80320	80370
A ±0.3(±0.012)	65.00 (2.56)	110.00 (4.33)	216.00 (8.50)	320.00 (12.60)	370.00 (14.57)
L1 ±0.3(±0.012)	6.00 (0.24)	6.00 (0.24)	6.00 (0.24)	6.00 (0.24)	6.00 (0.24)
L2 ±0.3(±0.012)	59.00 (2.32)	104.00 (4.09)	108.00 (4.25)	108.50 (4.27)	125.50 (4.94)
L3 ±0.3(±0.012)	-	-	210.00 (8.27)	211.50 (8.33)	244.50 (9.63)
L4 ±0.3(±0.012)	-	-	-	314.00 (12.36)	364.00 (14.33)

FIGURE 4—STABILITY AGAINST IMPULSES Reference values without heatsink

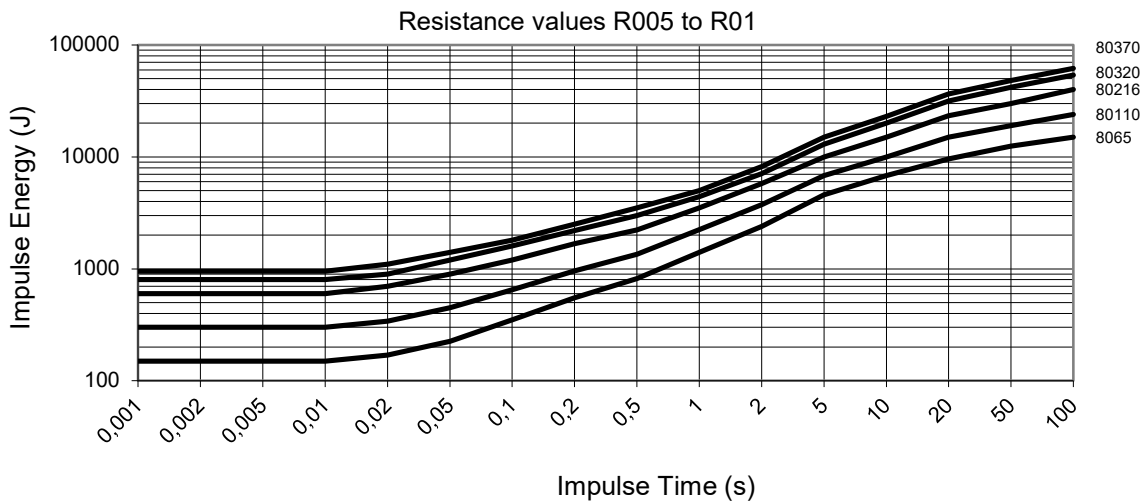
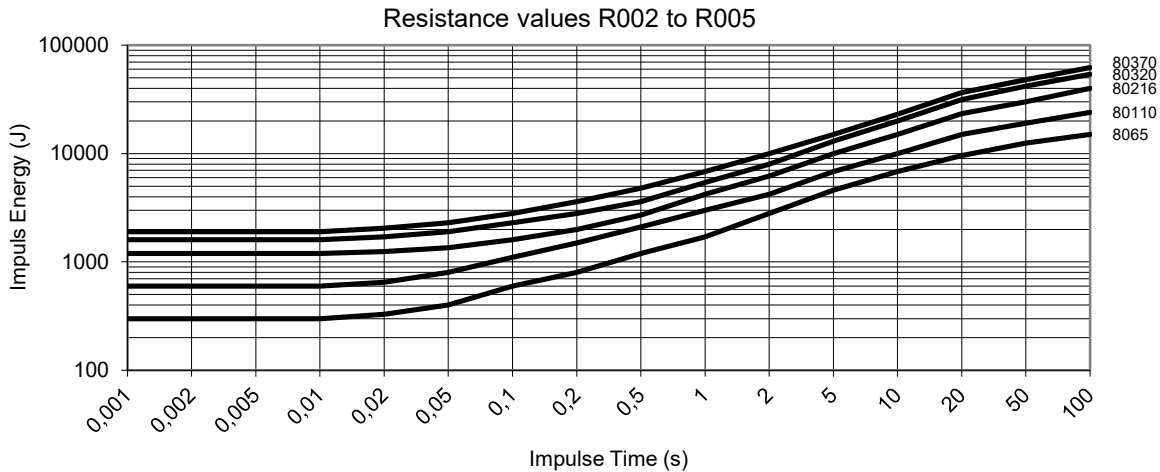
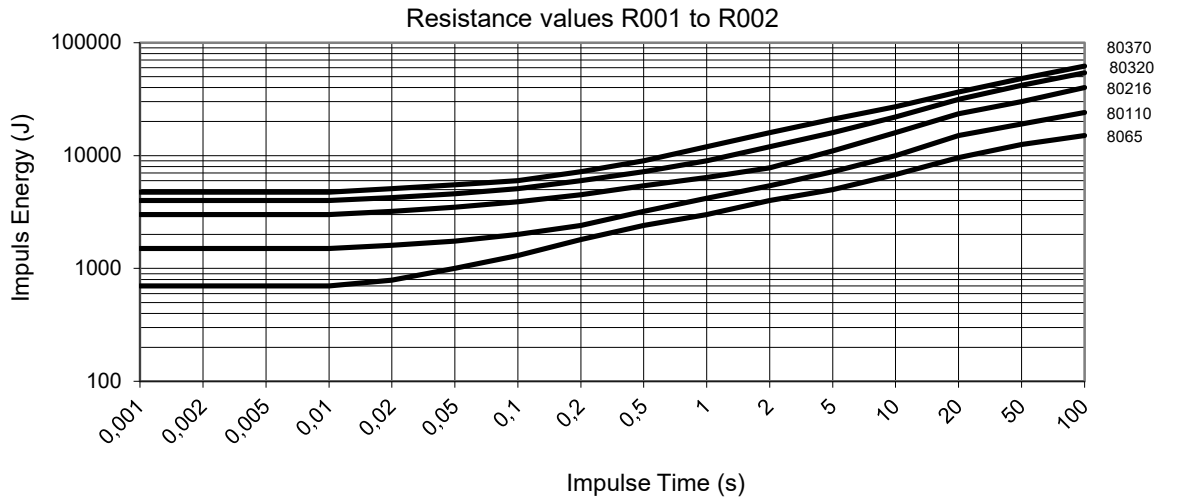


FIGURE 4—STABILITY AGAINST IMPULSES Reference values without heatsink

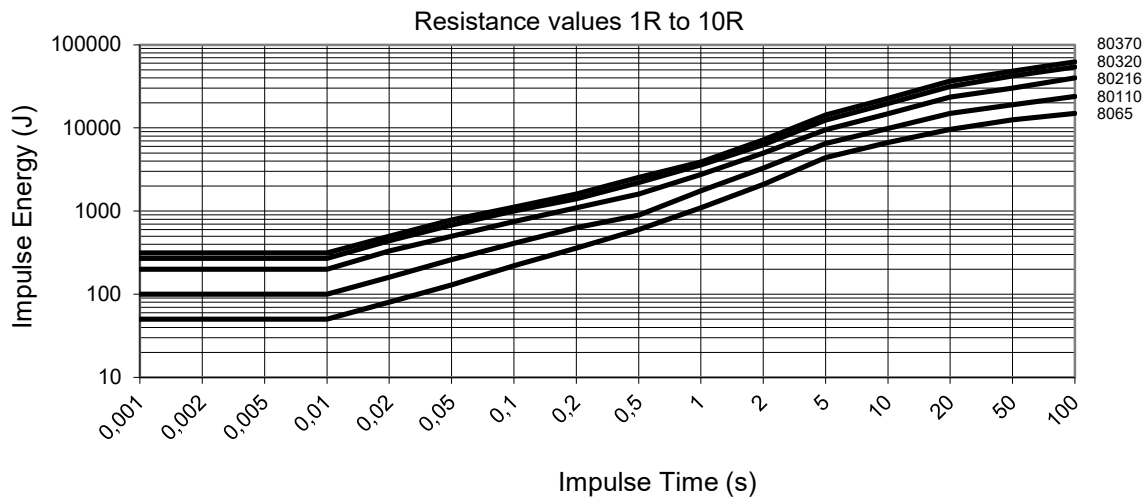
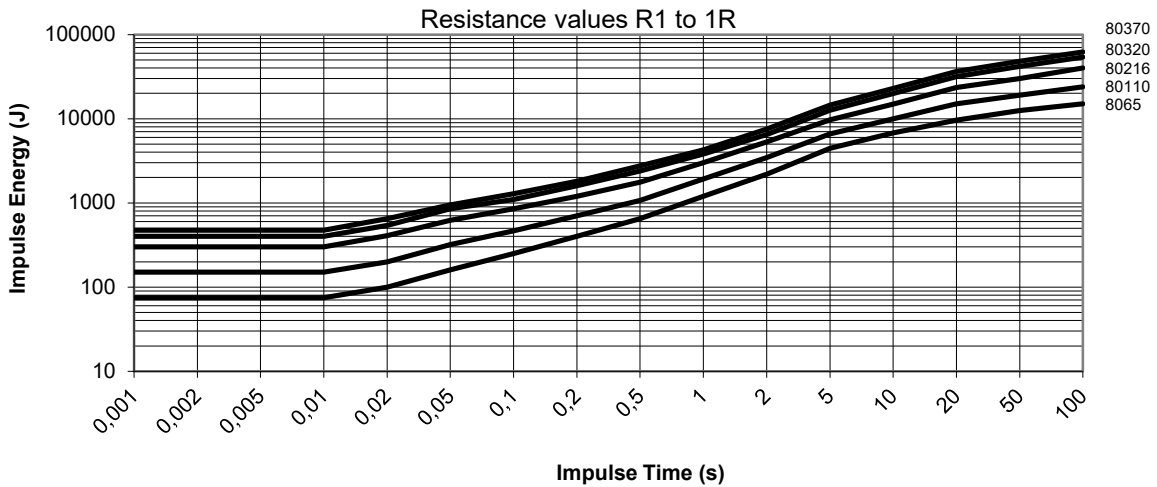
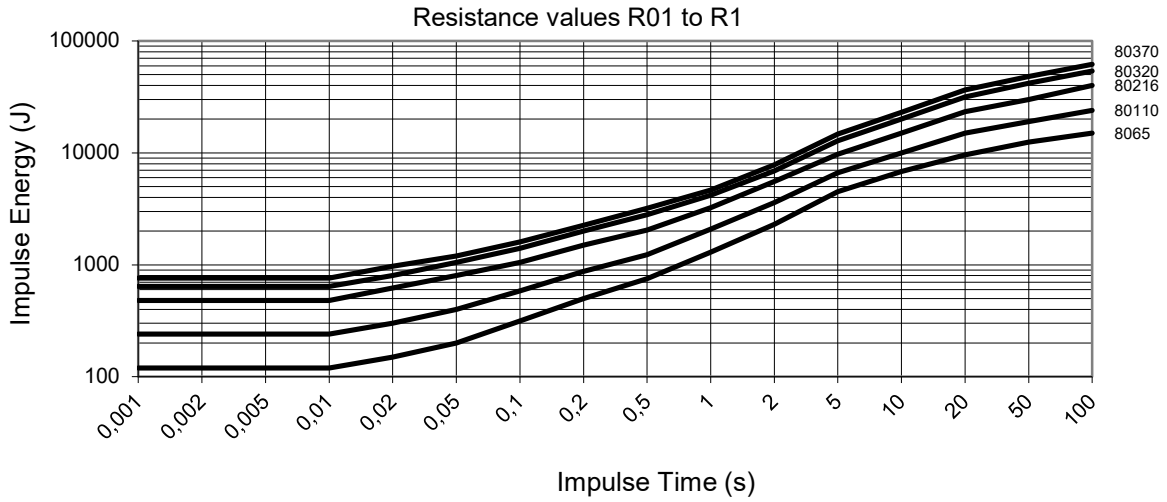


FIGURE 4—STABILITY AGAINST IMPULSES Reference values without heatsink

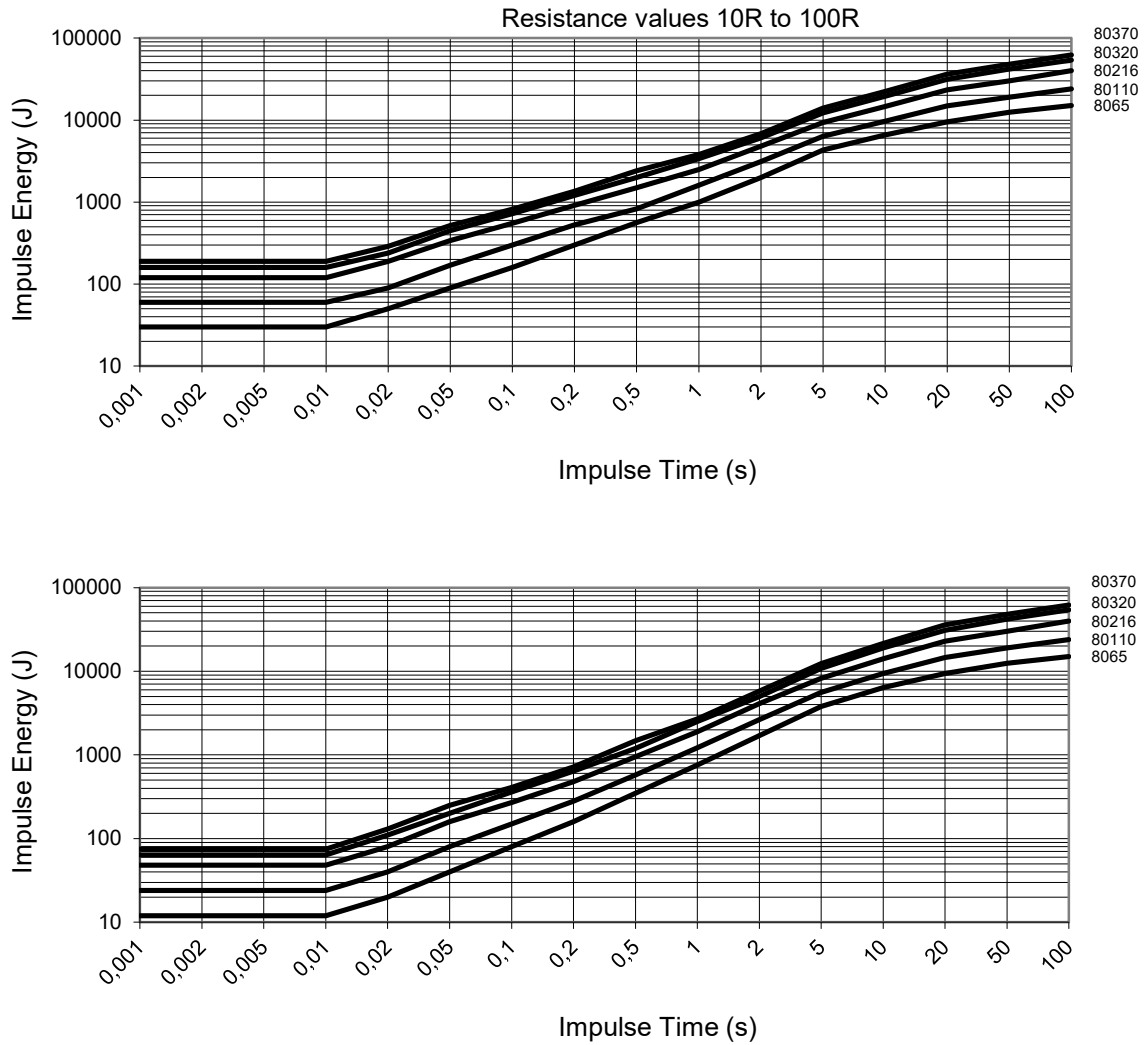


FIGURE 5—LEAD VARIATIONS

Type	max. Current	Description
D	60 A	insulated round cable (cu-tinned)
H1	70 A	insulated Cu-flat cable
H2	85 A	insulated Cu-flat cable
H3	100 A	insulated Cu-flat cable
H4	120 A	insulated Cu-flat cable
H5	150 A	insulated Cu-flat cable

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