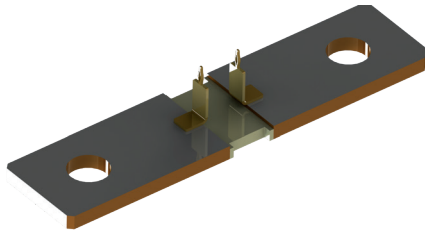


**BAV** // SIZE 8420 (METRIC)**PRELIMINARY VERSION****Features**

- Up to 36 W permanent power
- Continuous current load up to 350 A (0.1 mOhm)
- High pulse power rating
- Max. fastening torque 10 Nm
- Further versions with various dimensions upon request
- AEC-Q200 qualified in preparation
- Shunt with laser welded pressfit sense connections

**Applications**

- Current sensor for EBM (Electronic Battery Management) in motorcars, trucks, forklifts, hybrid and electric vehicles
- Current sensing in bus bars
- Current sensing in welding equipments

Technical data

Resistance values	mOhm	0.035 / 0.05 / 0.1 *
Tolerance	%	5
Temperature coefficient (20-60 °C)	ppm/K	from 50
Applicable temperature range	°C	-40 to +170
Power rating	W	36
Internal heat resistance (R_{thi})	K/W	see table on page 2
Thermal EMV (0-100 °C)	µV/K	0.6 (MANGANIN®) / 1 (ZERANIN®30)
Inductance	nH	<3
Stability (Nominal load) deviation after 2,000h		<0.5 % ($T_K = 110\text{ °C}$)
T_K = Terminal temperature		<1.0 % ($T_K = 140\text{ °C}$)

*further values on request

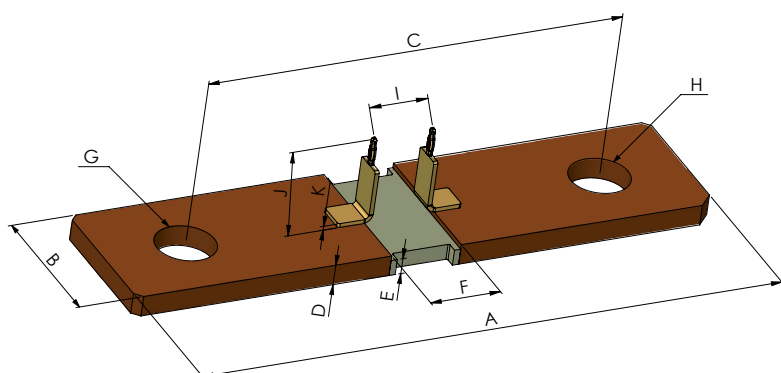
Packaging Information // work in progress

Delivery in plastic trays

30 pcs. per tray, 1,260 pcs. per batch



Mechanical dimensions [mm]



type	A	B	C	D	E	F	G	H	I	J
BAV-Z-R000035-V01-5.0	84	20	60	3	2,3	5	Ø8.3	Ø8.3	3,6	11,75
BAV-Z-R000035-V02-5.0	84	20	60	3	2,3	5	Ø8.3	Ø8.3	3,6	9,9
BAV-Z-R000035-V03-5.0	84	20	60	3	2,3	5	Ø8.3	Ø8.3	3,6	8,05
BAV-M-R00005-V01-5.0	84	20	60	3	2,3	5,2	Ø8.3	Ø8.3	3,6	11,75
BAV-M-R00005-V02-5.0	84	20	60	3	2,3	5,2	Ø8.3	Ø8.3	3,6	9,9
BAV-M-R00005-V03-5.0	84	20	60	3	2,3	5,2	Ø8.3	Ø8.3	3,6	8,05
BAV-M-R0001-V01-5.0	84	20	60	3	2,3	10,1	Ø8.3	Ø8.3	8,5	11,75
BAV-M-R0001-V02-5.0	84	20	60	3	2,3	10,1	Ø8.3	Ø8.3	8,5	9,9
BAV-M-R0001-V03-5.0	84	20	60	3	2,3	10,1	Ø8.3	Ø8.3	8,5	8,05

Type	Value [mΩ]	R _{thi} [K/W]	TCR [ppm/K]	P _{70 °C}	P _{140 °C}	Notes
BAV-Z-R000035-V01-5.0*	0.035	1.0	175	36 W	30 W	C-samples available from Q3/2022
BAV-M-R00005-V01-5.0	0.05	1.5	100	36 W	20 W	C-samples available from Q3/2022
BAV-M-R0001-V01-5.0*	0.1	2.0	50	36 W	15 W	C-samples available from Q3/2022

Abbreviation type: M=MANGANIN®, Z=ZERANIN®30

*values upon request

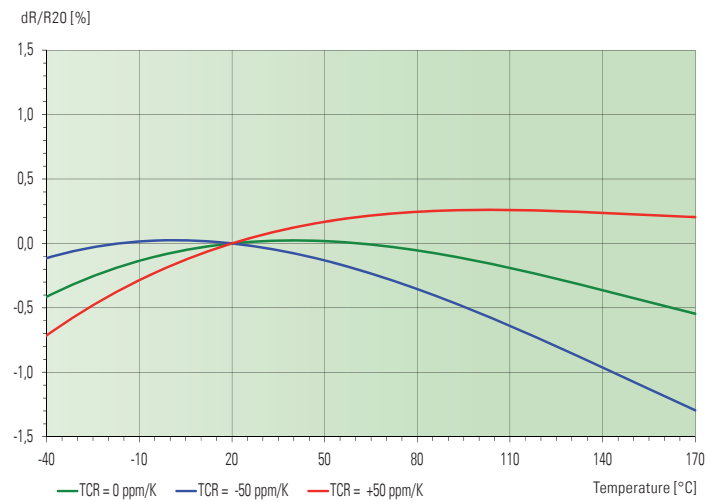
Ordering code example

BAV - M - R00005 - V01 - 5.0

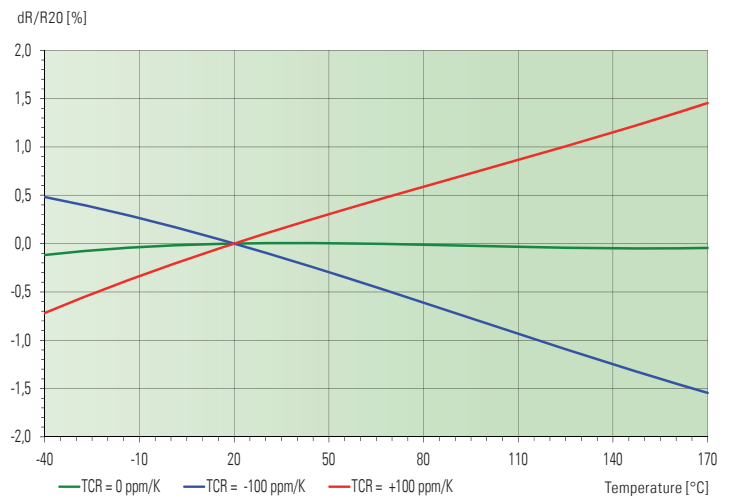
- Tolerance
- Version according to drawing
- Resistance value [Ohm] / „R“ represents decimal point
- Material (MANGANIN®)
- Type



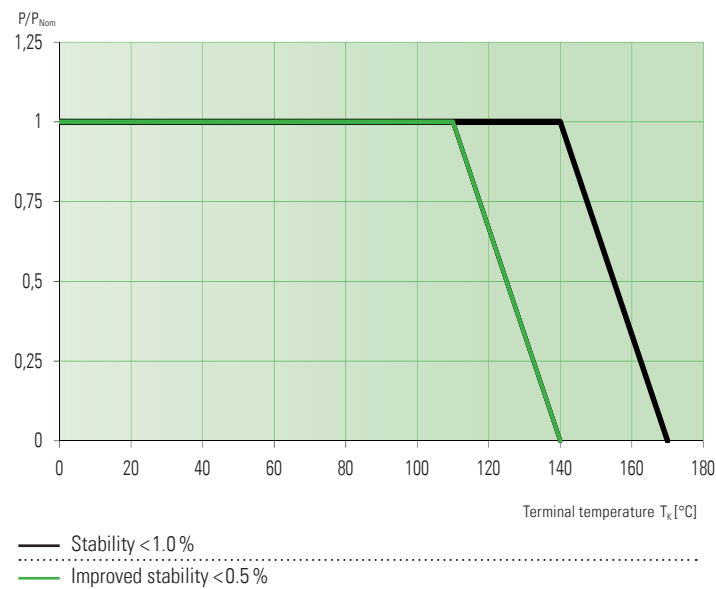
Temperature dependence of the electrical resistance of MANGANIN® resistors



Temperature dependence of the electrical resistance of ZERANIN® resistors



Power derating curve

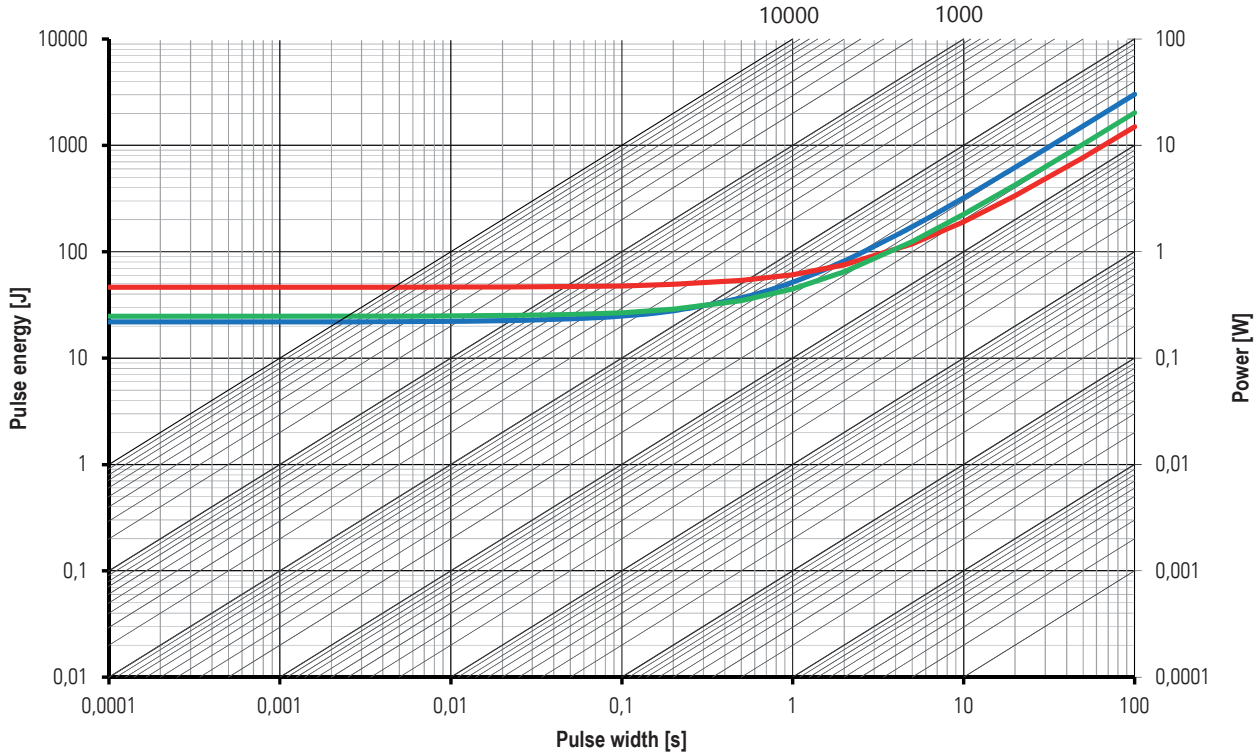




Maximum pulse energy respectively pulse power for permanent operation (TK=140°C)

BAV-Z-R000035, BAV-M-R00005, BAV-M-R0001

Maximum pulse energy / power continuous operation (T_K = 140 °C)



Disclaimer // All products, product specifications and data are subject to change without notice. The product specifications do not expand or otherwise modify Isabellenhütte's terms and conditions of sale, including but not limited to, the warranty expressed therein. Isabellenhütte makes no warranty, representation or guarantee other than as set forth in its terms and conditions of sale. Information provided in datasheets and/or specifications may vary from actual results in different applications. Any statements made by Isabellenhütte regarding the suitability of products for certain types of applications are based on its knowledge of typical requirements that are often placed on its products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in the application intended. No license, express or implied, or otherwise, to any intellectual property rights is granted by this document. Any and all liability arising out of the application or use of any product shall be as set forth in Isabellenhütte's terms and conditions of sale.

