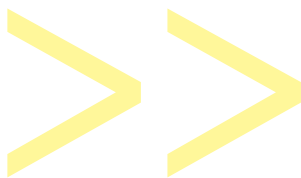
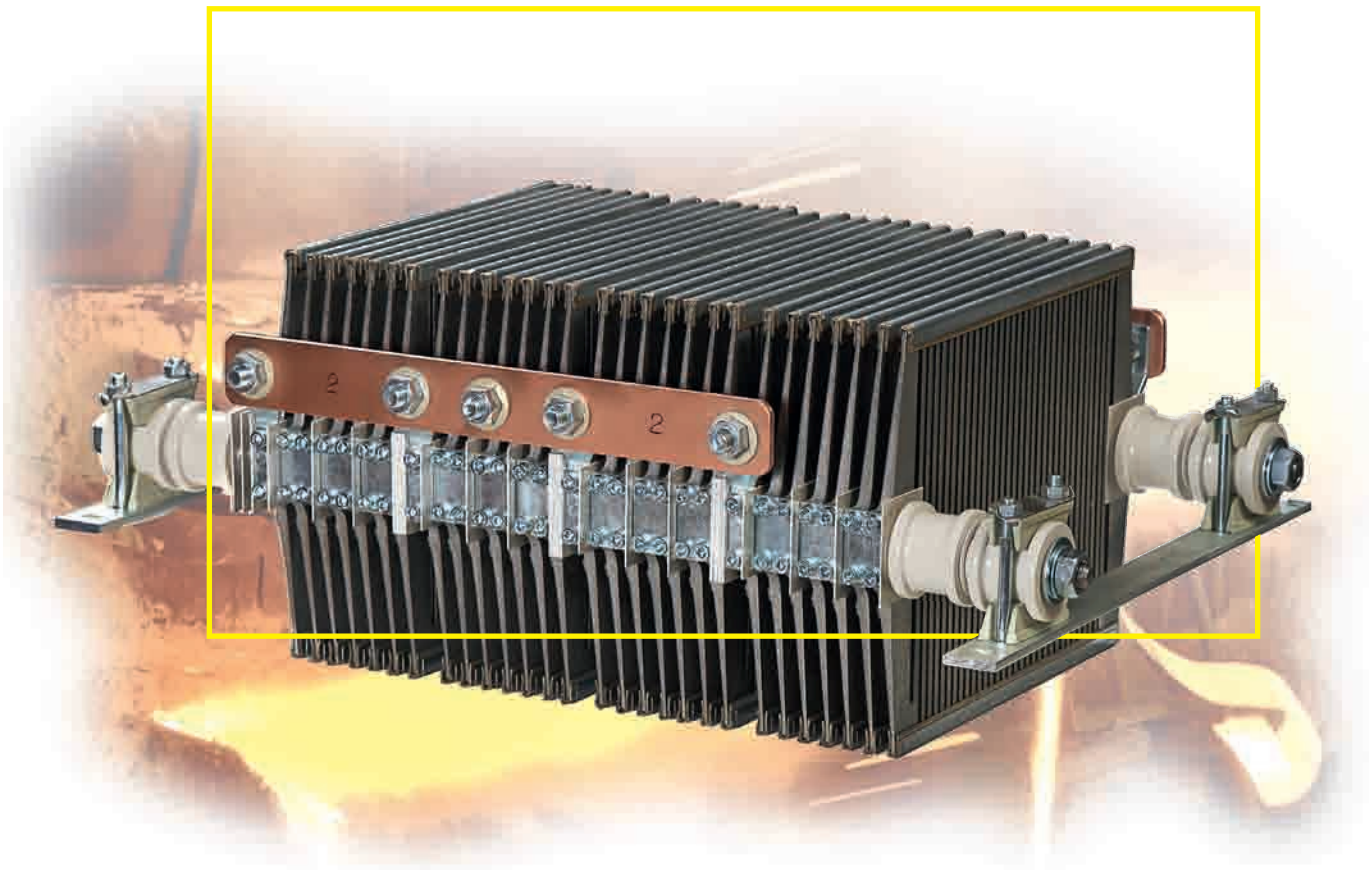


Cast Iron Resistors

for Industrial Use



Short-term / intermittent / continuous
operation

High overload capacity

Low maintenance

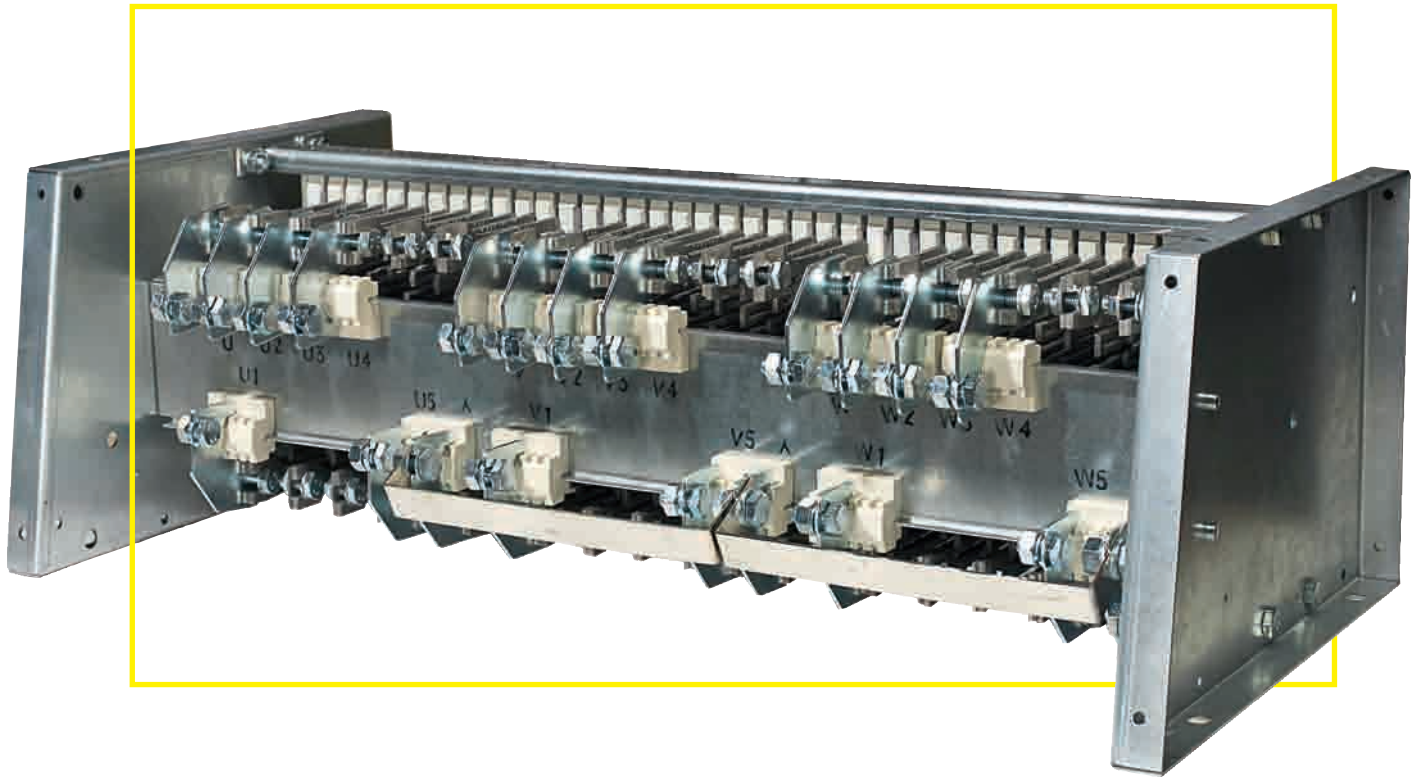
Quick availability

High reliability

Many combination possibilities

Siemens resistor system

Typ 3PR3...

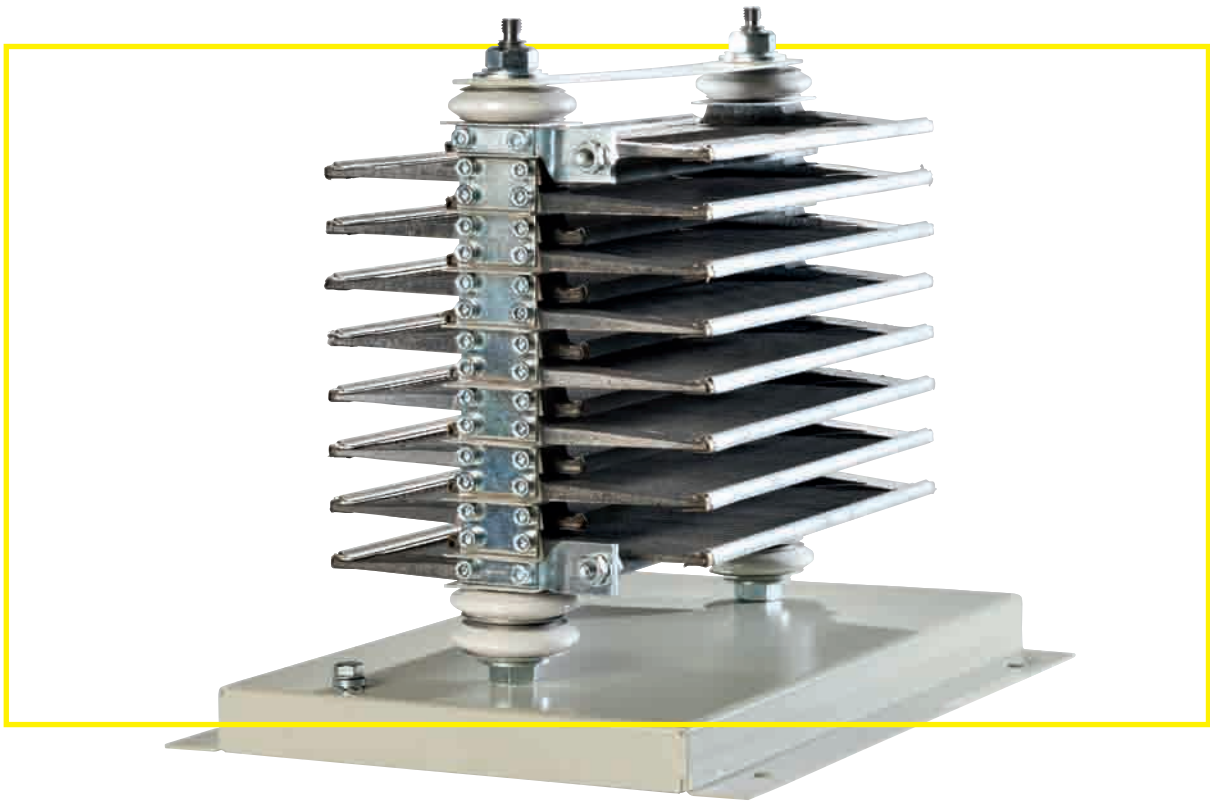


Main features:

- > Reduced stock due to standardized units
- > Galvanized housing front plates and stainless steel cover plates
- > Adjustment of steps possible due to large number of terminals
- > High reliability because elements are connected with bolts
- > For short-term loads, cast-iron elements with a double storage capacity are available
- > UL certification available, File E221095

Dimensions:	3PR30	3PR32	3PR34	3PR36	3PR38
Performance at 100% duty in kW:	4	6	8	11	13
No. of boxes stackable on top of each other:	max. 3 without performance reduction				
Enclosures as per IEC 144:	IP00 – IP10 – IP20 – IP13 – IP23				
Air and creepage path as per VDE110/01.89:	overvoltage protection category III, pollution level 3				
Rated insulation voltage:	AC 1500 V, DC 1800 V				
Test voltage:	3,5 kV – 50 Hz – 1 min.				
Manufacturing tolerance:	+/-10 % from cold value R 20°C				
Temperature coefficient:	7 ppm				
Permanent operating temperature:	max. 400°C, short-term 600°C				
Standard elements:	4,7 mOhm – 700 mOhm				

Resistor system GINO DK369...



Main features:

- > Steps adjusted as required
- > Housing elements sendzimir-galvanized, optional with RAL 7032 coating or made from stainless steel
- > High reliability because elements are connected with bolts
- > Double insulation by glimmer tubes and ceramic insulators
- > For short-term loads, cast-iron elements with a double storage capacity are available

Dimensions:	369.0	369.1	369.2
Performance at 100% duty in kW :	7,8	10,8	14,4
No. of boxes stackable on top of each other:	max. 3 without performance reduction		
Enclosures as per IEC 144:	IP00 – IP20 – IP23		
Air and creepage path as per VDE110/01.89:	overvoltage protection category III, pollution level 3		
Rated insulation voltage:	AC 1500 V, DC 1800 V		
Test voltage:	5 kV – 50 Hz – 1 min.		
Manufacturing tolerance:	+/-10 % from cold value R 20°C		
Temperature coefficient:	7 ppm		
Permanent operating temperature:	max. 400°C, short-term 600°C		
Standard elements:	12 mOhm – 750 mOhm		

Resistor system

AEG W106 - W130



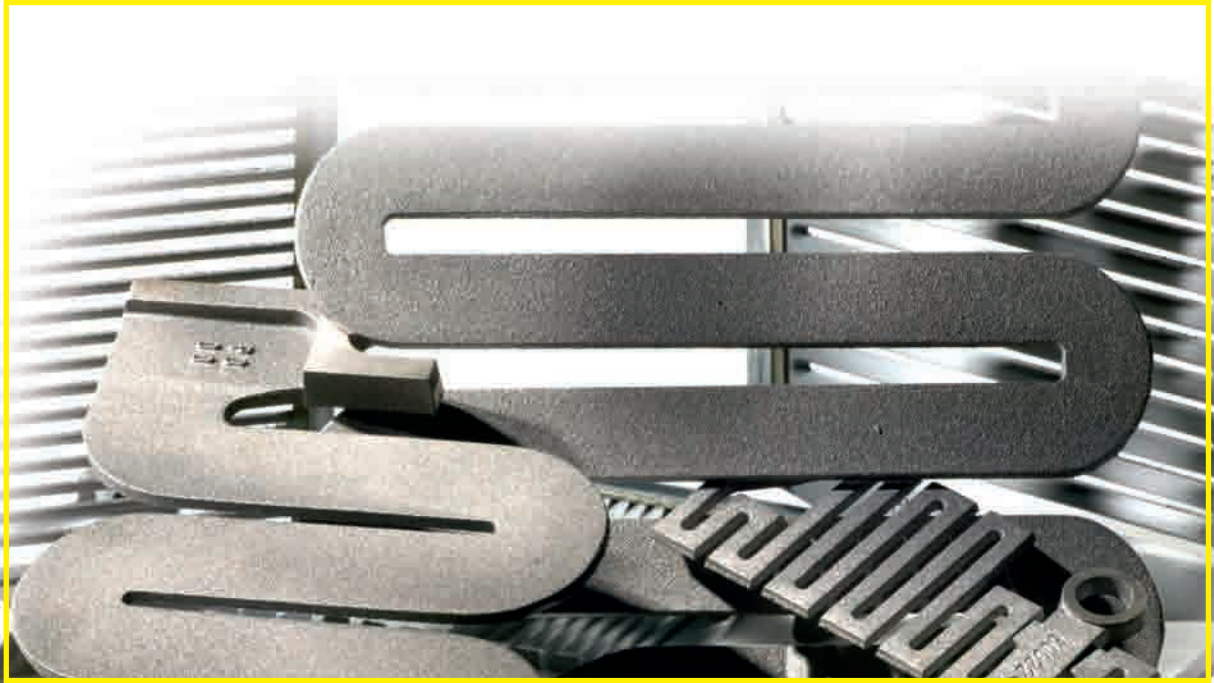
Main features:

- > User-friendly and easy to repair
- > Reduced stock due to standardized units
- > Housing elements sendzimir-galvanized, optional with RAL 7032 coating or made from stainless steel
- > Adjustment of steps possible due to large number of terminals
- > For short-term loads, 2 elements with a double storage capacity are available

Dimensions:	W106	W112	W118	W124	W130
Performance at 100% duty in kW:	2,6	4,6	7,0	9,4	12,0
No. of boxes stackable on top of each other:	max. 3 without performance reduction				
Enclosures as per IEC 144:	IP00 – IP20 – IP23				
Air and creepage path as per VDE110/01.89:	overvoltage protection category III, pollution level 3				
Rated insulation voltage:	AC 1500 V, DC 1800 V				
Test voltage:	5 kV – 50 Hz – 1 min				
Manufacturing tolerance:	+/-10%				
Temperature coefficient:	7 ppm				
Permanent operating temperature:	max. 400°C, short-term 600°C				
Standard elements:	10 mOhm – 670 mOhm				

More cast-iron resistors

by Gino

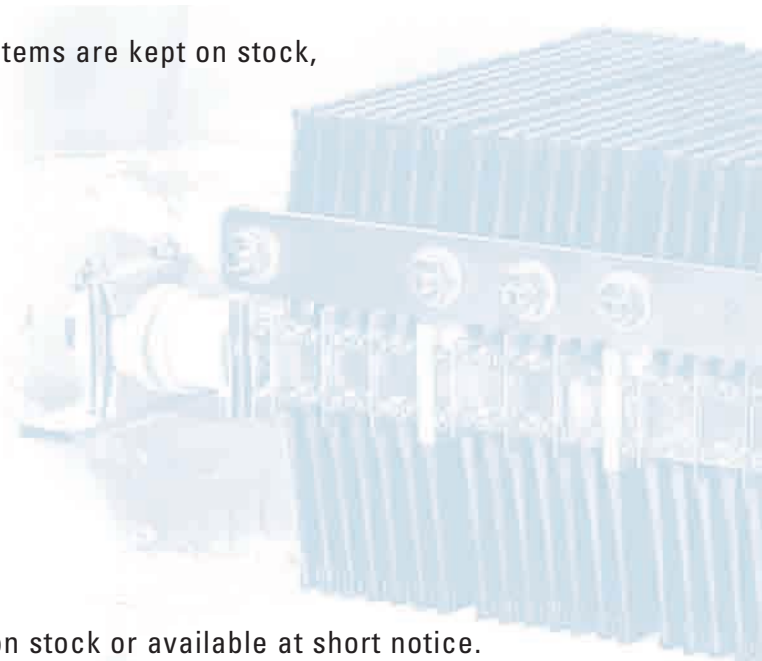


Since cast-iron elements, housing and assembly items are kept on stock, short delivery times can be granted.

Additional resistor systems produced by Gino:

- > Siemens type 3PR2...
- > Siemens type K48...
- > ABB (BBC) type GW...
- > ABB (BBC) type HC...
- > Alstom/Unetec type GFS...
- > Alstom/Unetec type NP...

Moreover, cast-iron elements of all systems are on stock or available at short notice.



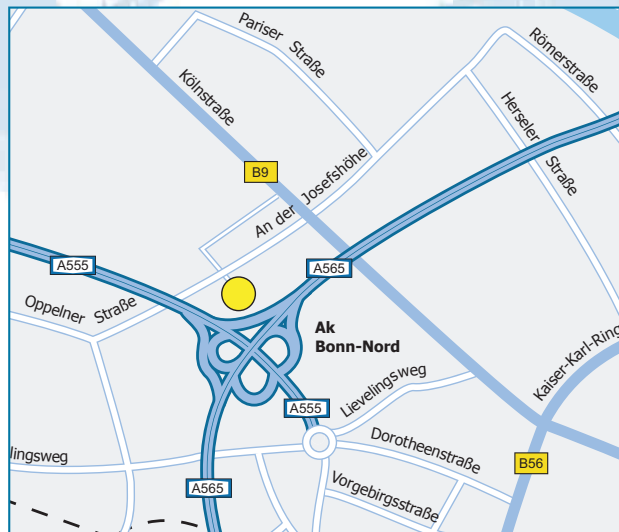
Application examples

- > Starting resistors
- > Continuous slip resistors
- > Braking resistors
- > Discharge resistors
- > Excitation and protection resistors
- > Short-circuit devices
- > Oil-cooled starters

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