

EMC/EMI Chokes RI series

Saturating Chokes

SCHAFNER
energy efficiency and reliability



- Rated currents from 1.5 to 25A
- Up to 500VAC operating voltage
- DC to 1kHz frequency
- Single or dual-choke configurations



Technical specifications

Maximum continuous operating voltage:	500VAC @ 40°C
Operating frequency:	dc to 1kHz
Rated currents:	1.5 to 25A @ 40°C max.
High potential test voltage	
winding-to-winding @ 25°C:	2500VAC, 60 sec, guaranteed
and/or winding-to-inserts:	2500V, 50Hz, 2 sec, factory test
Surge current @ 10msec:	20 x I _{nominal} @ 25°C
Temperature range (operation and storage):	-25°C to +110°C (25/110/21)
Flammability corresponding to:	UL 94V-0
MTBF @ 40°C/230V (Mil-HB-217F):	> 5,000,000 hours

Typical electrical schematic



RI saturating type chokes change impedance at the moment of switching, and can be used to attenuate differential-mode noise or symmetrical interference as generated in fast switching high current applications. These chokes are typically used in conjunction with suppression capacitors. For optimum attenuation chokes must be connected as close as possible to the semiconductor switching device.

Features and benefits

- Excellent thermal behavior.
- Through hole or wire connections.
- Single or dual-choke configurations.
- Up to 25A single configuration.
- Custom-specific versions are available on request.

Typical applications

- Suppressing high interference levels generated by fast switching circuits
- DC voltage smoothing
- EMC/EMI filters
- Phase angle control circuits
- Power supplies
- Chargers

Choke selection table

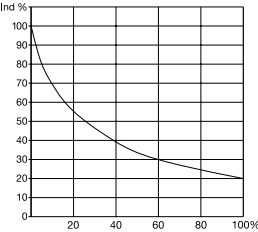
Choke	Nominal current @ 40°C	Resistance R	Choke configuration	Input/Output connections		Weight
	[A]	[mΩ/path]	[Qty]			[g]
RI 111 PC	6	42	2	02		170
RI 401 PC	1.5	620	1	02		15
RI 403 PC	3	105	1	02		30
RI 406 PC	6	53	1	02		55
RI 410 PC	10	28	1	02		95
RI 415	15	8	1		07	205
RI 425	25	4	1		07	325

Test conditions:
Resistance tolerance: max. ±15% @ 25°C; < 200mΩ, 100mA; > 200mΩ ≤ 2Ω, 10mA
Electrical characteristics @ 25°C: ±2°C

Typical saturation characteristics

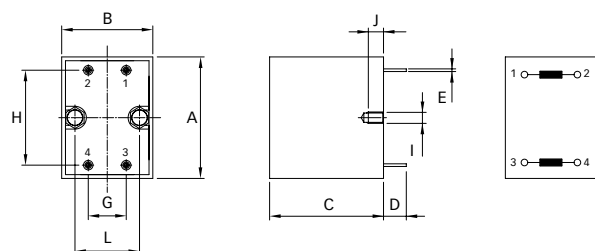
Inductance (typical value in %) vs. nominal current in %

RI series

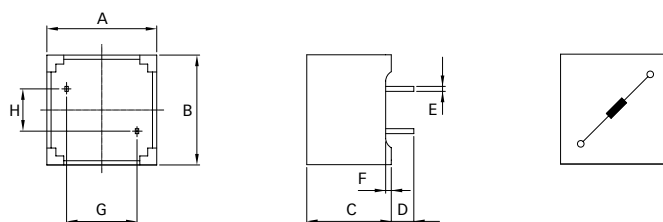


Mechanical data

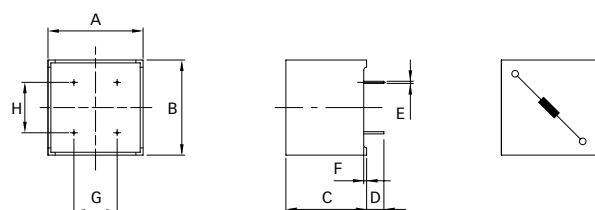
RI 111



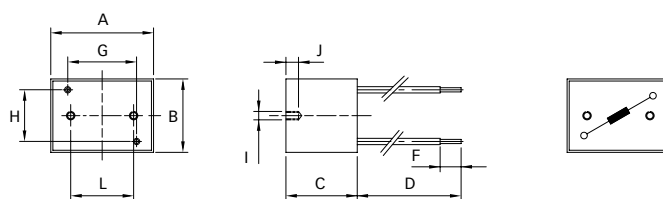
RI 401, RI 403, RI 406



RI 410



RI 415, RI 425



Dimensions

	RI 111	RI 401	RI 403	RI 406	RI 410	RI 415	RI 425	Tolerances
A	49	19.5	23.3	28.5	33	35	48	
B	35	19.5	23.3	28.5	33	49	48	
C	34	15	18	21.5	28	34	43	±0.3
D	15	4	6	4.5	6	200	200	
E	Ø1.15	0.6 x 0.88	Ø0.9	0.6 x 0.88	0.75 x 1.1			±0.1
F		1			1	10	10	
G	20	12.5	15	20	17.5	22	39	
H	40	7.5	10	10	15	36	35	
I	M4					M4	M4	
J	6					6	6	+0/-0.5
L	21					30	30	±0.25

All dimensions in mm; 1 inch = 25.4mm
Tolerances according: ISO 2768-m / EN 22768-m

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