

## HIGH PERFORMANCE RFI/EMI POWER FILTERS

### N182X SERIES

#### Features

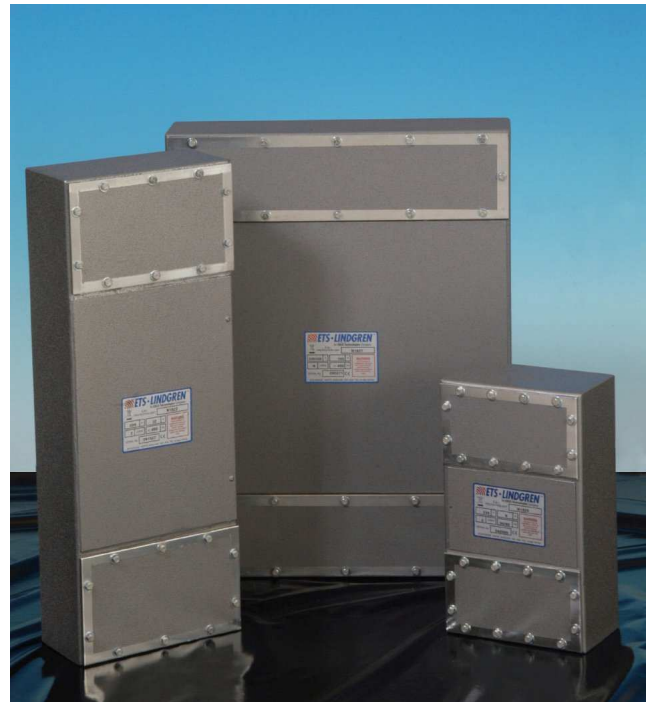
- Suitable for 400Hz supplies
- 100dB insertion loss
- Compact size
- High protection rate against EMI
- EMP Protection

#### Description

These filters provide 100dB insertion loss from 150kHz to 10GHz at full load in both symmetric and asymmetric modes. These reliable general-purpose filters have a wide variety of applications.

#### Common uses include:-

- Filtering mains supply cables to RF screened rooms where 100dB attenuation is required.
- Filtering mains supply cables to computers and other types of equipment that contain solid state circuits requiring a high degree of protection against mains-borne interference. For this type of application, the filters are usually wallmounted adjacent to the equipment.
- Fitted with transient suppressors, they give total protection against all normal mains-borne interference.
- For 400Hz supplies, particularly those required to meet stringent limits on wave form distortion and harmonic content.

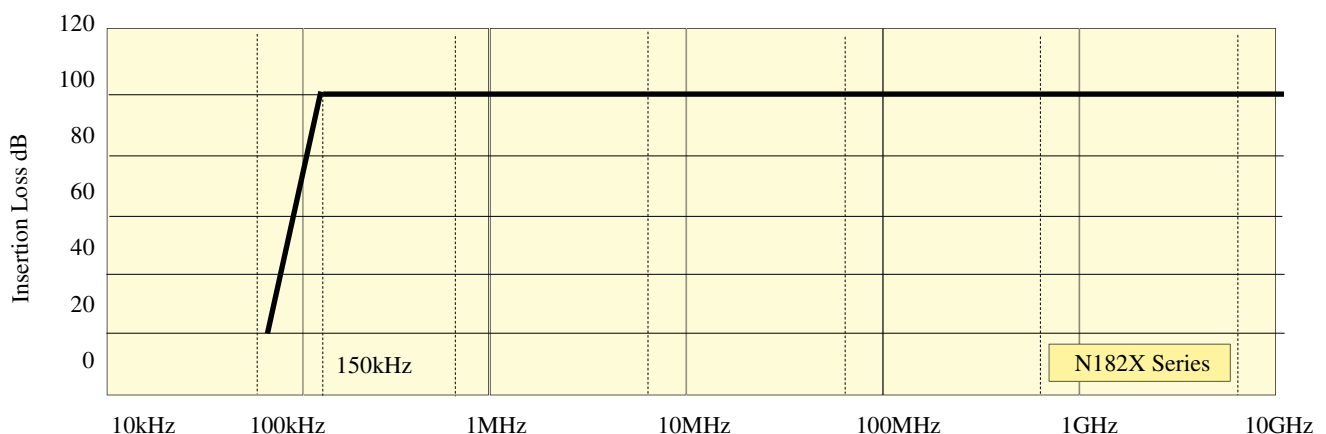


Filters of the same part number may be connected with parallel lines to give increased current capability without loss of attenuation. Please contact the sales office for further advice on the most suitable method. The filter networks of this series are RF sealed in high quality electroplated steel cases.

Solid and permanent earthing of the case of these filters is essential for safety reasons and to ensure optimum performance.

All these filters are ROHS Compliant and are CE marked for Compliance with the low voltage Directive.

#### Performance Graph



TYPICAL FILTER PERFORMANCE

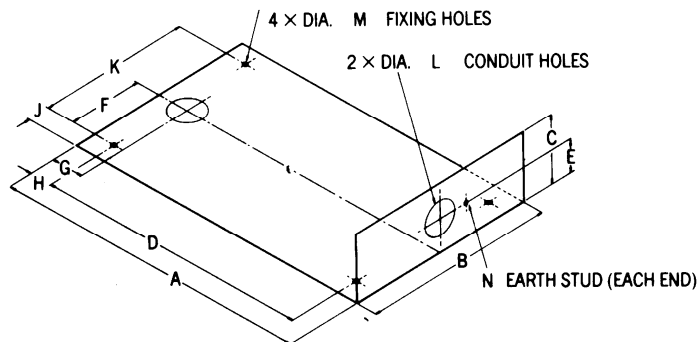
Typical performance for N182X Series as measured in accordance with MIL-STD 220A in a 50 Ohm system with additional testing to 10GHz.

## Technical Data

PART NUMBER	N1820	N1821	N1822	N1823	N1824	N1825	N1826	N1827
Current max (Amps)	6	6	32	32	63	63	100	100
Voltage frequency max. (Volts/Hertz)	2 Line Filters = 250V-DC/50/60Hz - 120V-400Hz 4 Line Filters = 440/250V-DC/50/60Hz - 220/120V-400Hz							
Number of lines	2	4	2	4	2	4	2	4
Voltage drop on full load in a 250V 50/60 Hz system per line (V)	1	1	0.4	0.4	0.3	0.3	0.5	0.5
DC resistance per line (mΩ)	100	100	15	15	3	3	2	2
Total series inductance per line (μH)	1680	1680	177	177	25.5	25.5	37	37
Total shunt capacitance per line (μF)	1.5	1.5	8.5	8.5	8.5	8.5	8.5	8.5
Case temperature rise on full load (°C)	+10	+10	+12	+12	+12	+12	+25	+25
Max. recommended case temperature on full load (°C)	+70							
Full load dissipation (W)	12	24	100	200	60	120	120	240
Filter type with 250V transient suppressors	N1820TS	N1821TS	N1822TS	N1823TS	N1824TS	N1825TS	N1826TS	N1827TS
Filter type with 400V transient suppressors	N1820 HVTS	N1821 HVTS	N1822 HVTS	N1823 HVTS	N1824 HVTS	N1825 HVTS	N1826 HVTS	N1827 HVTS

## Physical Data

PART NUMBER	A	B	C	D	E	F	G	H	J	K	L	M	N	Weight (kg)
N1820	305	175	110	212	50	63.5	46.5	46.5	24	127	20	7	M6	5.9
N1821	305	345	110	212	50	108	46.6	46.5	64.5	216	20	9	M6	11.8
N1822	560	210	110	487	50	41.2	46	35	63.8	82.4	32	9	M6	12.7
N1823	560	415	110	487	50	143	46	35	64.5	286	32	13	M6	24.9
N1824	560	210	110	487	50	41.2	46	35	63.8	82.4	32	9	M6	12.7
N1825	560	415	110	487	50	143	46	35	64.5	286	32	13	M6	24.9
N1826	560	210	110	487	50	41.2	46	35	63.8	82.4	32	9	M6	17.7
N1827	560	415	110	487	50	143	46	35	64.5	286	50.8	13	M6	34



Continuous Development: We reserve the right to amend any information contained within this datasheet without prior notice to take into account new developments. Please note: All figures are typical unless otherwise specified. All dimensions are approximate. All dimensions are in mm.