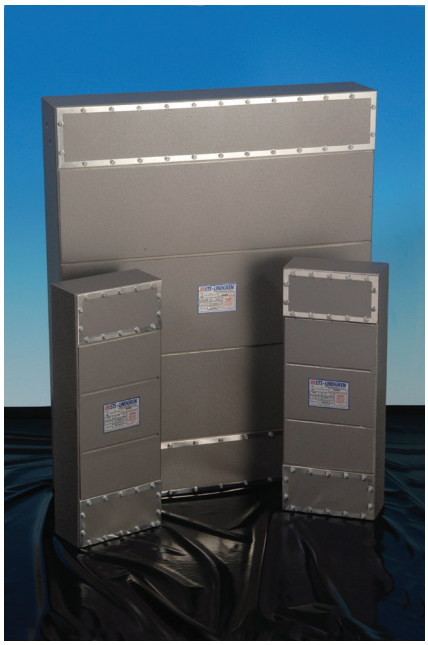
ETS·LINDGREN™
An ESCO Technologies Company

Power Filters
N255X Series

FEATURES:

- Highest Performing Commercially Available Power Line Filter
- Over 100 dB Insertion Loss From 10 kHz To 40 GHz
- Maximum Protection In TEMPEST and EMP Applications
- Fully Accessible End Chambers For Connectivity
- RoHS Compliant and CE Marked For Compliance With The Low Voltage Directive



N255x Series Power Filters

THE N255X Filters are RFI/EMI high performance power filters used in TEMPEST and EMP applications.

DESCRIPTION

For greater than the maximum ratings, two or more of the same filter type may be connected in parallel without any significant performance loss. When fitted with transient suppressors, they give almost total protection against mains-borne transients. Solid and permanent earthing of the case is essential for safety and to ensure optimum performance.

These filters are not recommended for 400 Hz systems.

FEATURES

High Performance

N255X filters have the distinction of being the highest performing commercially available power filters. They are fully tested for attenuation performance, voltage withstanding to 1 kV for thirty seconds, and insulation resistance.

Insertion Loss

N255X filters provide 100 dB insertion loss from 10 kHz to 40 GHz in both symmetric and asymmetric modes up to full load.

Maximum Protection

These filters also offer maximum protection in TEMPEST and EMP applications.

End Chamber Accessibility

For termination of input and output cabling, these filters have fully accessible end chambers.

RoHS Compliant, CE Marked

N255X filters are RoHS compliant and are also CE marked for compliance with the low voltage directive.

APPLICATIONS

- High Performance Screen Rooms; Providing Attenuation of Both the Incoming and Outgoing Mains Supply Lines to Match the Shield Performance
- TEMPEST Applications
- EMP Protection Systems

STANDARD CONFIGURATION

- Filter Networks are RF Sealed in High Quality Electroplated Steel Cases
- Available With a Variety of Cable Entry Options
- Fixing Kit

OPTIONS

- TS (Transient Suppressor)
- HVTS (High Voltage Transient Suppressor)
- Other Options Upon Request

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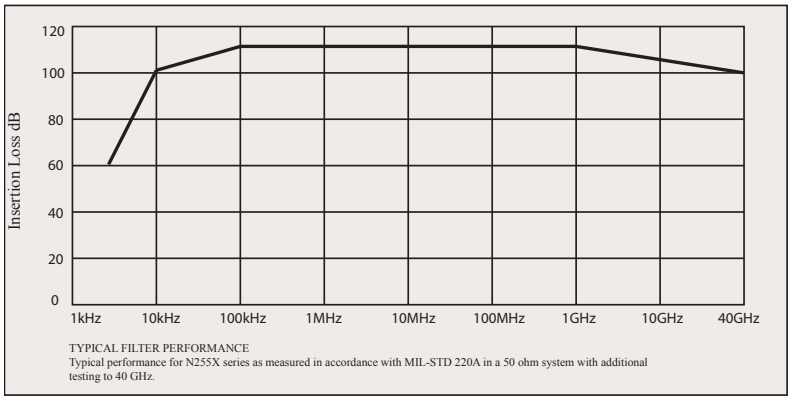
Electrical Specifications

PART #	Current Max (Amps)	Voltage Max (Volts)	Frequency (Hz)	Number of Lines in a 250V 50/60 Hz System Per Line (Max)	Volt Drop on Full Load (Volts)	DC Resistance Per Line (mΩ)	Series Inductance Per Line (uH)	Shunt Capacitance Per Line (uF)	Case Temp. Rise on Full Load (° C)	Max. Recommended Case Temp. on Full Load (° C)	Full Load Dissipation (W)
N2550	6	250	50/60	2	1.0	50	2,500	20	+10	+70	20
N2551	6	440/250	50/60	4	1.0	50	2,500	20	+10	+70	40
N2552	16	250	50/60	2	1.0	12	2,700	32	+12	+70	40
N2553	16	440/250	50/60	4	1.0	12	2,700	32	+12	+70	80
N2554	32	250	50/60	2	0.6	24	600	40	+12	+70	90
N2555	32	440/250	50/60	4	0.6	24	600	40	+12	+70	180
N2556	63	250	50/60	2	1.5	15	960	36	+15	+70	100
N2557	63	440/250	50/60	4	1.5	15	960	36	+15	+70	200
N2558	100	250	50/60	2	0.9	5	360	68	+15	+70	400
N2559	100	440/250	50/60	4	0.9	5	360	68	+15	+70	400

Physical Specifications

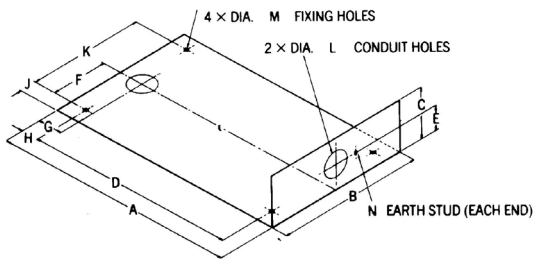
PART #	A	B	C	D	E	F	G	H	J	K	L	M	N	WEIGHT
N2550	460 mm (18.1 in)	140 mm (5.5 in)	110 mm (4.3 in)	397 mm (15.6 in)	50 mm (2.0 in)	40 mm (1.6 in)	48 mm (1.9 in)	30 mm (1.2 in)	64 mm (2.5 in)	80 mm (3.1 in)	20 mm (0.8 in)	9 mm (.4 in)	M6	6.0 kg (13.2 lbs)
N2551	460 mm (18.1 in)	280 mm (11.0 in)	110 mm (4.3 in)	397 mm (15.6 in)	50 mm (2.0 in)	110 mm (4.3 in)	45 mm (1.8 in)	30 mm (1.2 in)	64 mm (2.5 in)	220 mm (8.7 in)	20 mm (0.8 in)	11 mm (0.4 in)	M6	10.5 kg (23.1 lbs)
N2552	560 mm (22.0 in)	210 mm (8.4 in)	110 mm (4.3 in)	487 mm (19.2 in)	50 mm (2.0 in)	41.2 mm (1.6 in)	46 mm (1.8 in)	63.8 mm (2.5 in)	64 mm (2.5 in)	82.4 mm (3.2 in)	32 mm (1.3 in)	9 mm (0.4 in)	M6	13.5 kg (29.8 lbs)
N2553	560 mm (22.0 in)	415 mm (16.3 in)	110 mm (4.3 in)	487 mm (19.2 in)	50 mm (2.0 in)	143 mm (5.6 in)	46 mm (1.8 in)	64.5 mm (2.5 in)	64 mm (2.5 in)	286 mm (11.3 in)	32 mm (1.3 in)	13 mm (.5 in)	M6	27.0 kg (59.5 lbs)
N2554	560 mm (22.0 in)	210 mm (8.4 in)	110 mm (4.3 in)	487 mm (19.2 in)	50 mm (2.0 in)	41.2 mm (1.6 in)	46 mm (1.8 in)	63.8 mm (2.5 in)	61 mm (2.4 in)	82.4 mm (3.2 in)	32 mm (1.3 in)	9 mm (.4 in)	M6	13.5 kg (29.8 lbs)
N2555	560 mm (22.0 in)	415 mm (16.3 in)	110 mm (4.3 in)	487 mm (19.2 in)	50 mm (2.0 in)	143 mm (5.6 in)	46 mm (1.8 in)	64.5 mm (2.5 in)	62 mm (2.4 in)	286 mm (11.3 in)	32 mm (1.3 in)	13 mm (.5 in)	M6	27.0 kg (59.5 lbs)
N2556	900 mm (35.4 in)	360 mm (14.2 in)	150 mm (5.9 in)	770 mm (30.3 in)	70 mm (2.8 in)	140 mm (5.5 in)	65 mm (2.6 in)	40 mm (1.6 in)	61 mm (2.4 in)	280 mm (11.0 in)	32 mm (1.3 in)	11 mm (0.4 in)	M6	54.0 kg (119.0 lbs)
N2557	900 mm (35.4 in)	720 mm (28.3 in)	150 mm (5.9 in)	770 mm (30.3 in)	70 mm (2.8 in)	320 mm (12.6 in)	65 mm (2.6 in)	40 mm (1.6 in)	62 mm (2.4 in)	640 mm (25.2 in)	50.8 mm (2.0 in)	13 mm (.5 in)	M6	104.0 kg (229.3 lbs)
N2558	900 mm (35.4 in)	360 mm (14.2 in)	150 mm (5.9 in)	770 mm (30.3 in)	70 mm (2.8 in)	140 mm (5.5 in)	65 mm (2.6 in)	40 mm (1.6 in)	62 mm (2.4 in)	280 mm (11.0 in)	32 mm (1.3 in)	11 mm (0.4in)	M6	51.5 kg (113.6 lbs)
N2559	900 mm (35.4 in)	720 mm (28.3 in)	150 mm (5.9 in)	770 mm (30.3 in)	70 mm (2.8 in)	320 mm (12.6 in)	65 mm (2.6 in)	40 mm (1.6 in)	62 mm (2.4 in)	640 mm (25.2 in)	50.8 mm (2.0 in)	13 mm (.5 in)	M6	98.0 kg (216.1 lbs)

N255X Series Performance Graph



TYPICAL FILTER PERFORMANCE
Typical performance for N255X series as measured in accordance with MIL-STD 220A in a 50 ohm system with additional testing to 40 GHz.

N255X Physical Specification Diagram



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