

EMI Filter For Anechoic Chamber



High-performance EMI Filter For Anechoic Chamber



1. Product Description

High-Performance Anechoic Chamber Filters specifically designed for conducted exceptional EMI suppression, ensuring optimal performance in controlled testing environments. Our product range includes single-phase/DC power line filters and three-phase four-wire power line filters.

2. Typical Applications

- Anechoic chamber, EMC testing chamber, Antenna pattern testing chamber, Radar cross-section (RCS) testing chamber, Electronic warfare (EW) testing chamber
- Shielded room
- EMC cabinet
- Electronic shelters

3. Product Features

- Ultra-High EMI Suppression: In the range of 14kHz – 40GHz, insertion loss > 100dB.
- Compliance with Standards: Meets CISPR 16/25, IEC 61000-4-3, MIL-STD-461, EN 60939 and

other stringent military and international standards.

- Low leakage and low voltage drop
- Easy Integration: Compact and easy to install, fitting various chamber structures.
- High common & differential mode insertion loss

4. Technical Data

Rated Voltage	250VAC/500VDC 250/440VAC	Single-phase/DC Three-phase
	500VDC	
Rated Frequency	DC/50/60Hz	
Rated Current	Refer to product selection table	Ambient temperature of +40°C
Number of lines	2 or 4	
Insertion Loss, Per MIL-STD-220C	> 100dB	Three-stage filter: 14kHz – 40GHz
DC Resistance	Refer to product selection table	Each Line
Power Dissipation	Refer to product selection table	At Rated Current
Test Voltage	1200Vdc, 2s	Line/Line
	1200Vdc, 2s	Line/Ground
Voltage Drop/line	< 1%	Rated Voltage 250/440V@50/60Hz
I _{Leakage}	Refer to product selection table	
Discharge Time to Below 34V	30s	
Climatic Category (EN 60068-1)	25/085/21	-25°C~+85°C 21 days damp heat test

➤ Discharging Resistance Integrated

A discharge resistor is integrated into the filter to safely dissipate stored capacitance after power is turned off.

5. Product Selection Table

Type	Rated Current (A)	Rated Voltage (VAC/DC)	Number of lines	I _{Leakage} (A)	DC resistance of each line (mΩ)	Power Dissipation (W)	Dimensional Drawing
GPF271C-16	16	250/500	2	1.2	<50	<30	Fig 1
GPF271C-32	32	250/500	2	2.7	<20	<40	
GPF271C-63	63	250/500	2	4.9	<6.0	<70	Fig 2
GPF271C-100J	100	250/500	2	6.5	<3.5	<100	
GPF271C-150J	150	250/500	2	6.5	<2.0	<200	
GPF271C-200J	150	250/500	2	6.5	<2.0	<250	
GDF271C-250J	250	0-500 VDC	2	/	<3.0	<250	Fig 3
GDF271C-300J	300				<1.0	<250	Fig 4
GDF271C-400J	400				<1.0	<250	Fig 5
GDF271C-500J	500				<1.0	<300	

GDF271C-600J	600				<1.0	<500	
GDF271C-800J	800				<1.0	<500	Fig 6
GPF471C-16	16	250/440VAC	4	1.2	<50	<60	Fig 7
GPF471C-32	32	250/440VAC	4	2.7	<20	<80	
GPF471C-63	63	250/440VAC	4	4.9	<6.0	<150	
GPF471C-100	100	250/440VAC	4	2.5	<3.5	<250	
GPF271C-150J*2	150	250/440VAC	2*2	2.5	<2.0	<350	Fig 2
GPF271C-200J*2	200	250/440VAC	2*2	2.5	<2.0	<400	

6. Dimensions (mm)

Type	A	B	C	D	E	F	G	H	I	J	K	L	Dim.
GPF271C-16	650	160	120	200	180	350	100	50	M24	M6	M6	/	Fig 1
GPF271C-32												/	
GPF271C-63	850	180	140	220	200	275	100	50	M45	M6	M6	/	Fig 2
GPF271C-100J	860	250	180	290	270	280	100	70	M45	M8	M8	/	
GPF271C-150J	915	300	210	340	320	307.5	90	60	M45	M8	M8	/	
GPF271C-200J									M60	M12		/	
GDF271C-250J	1100	450	220	490	470	260	85	75	M60	M12	M8	/	Fig 3
GDF271C-300J	1100	450	220	490	470	260	85	75	2*M45	M12	M12	225	Fig 4
GDF271C-400J	1100	450	220	490	470	260	85	75	2*M60	3*80	M12	225	Fig 5
GDF271C-500J	1100	500	240	540	520	260	85	75	2*M60	3*80	M12	250	
GDF271C-600J	1100	500	240	540	520	260	85	75	2*M60	3*80	M12	250	
GDF271C-800J	1100	520	300	560	540	260	85	75	2*M80	3*125	M12	260	Fig 6
GPF471C-16	700	250	120	290	270	200	100	50	M33	M6	M6	/	Fig 7
GPF471C-32												/	
GPF471C-63	860	250	140	290	270	280	90	60	M45	M6	M6	/	
GPF471C-100										M8	M8	/	
GPF271C-150J*2	915	300	210	340	320	307.5	90	60	M45	M8	M8	/	Fig 2
GPF271C-200J*2									M60	M12		/	

7. Outline Drawing

Fig 1

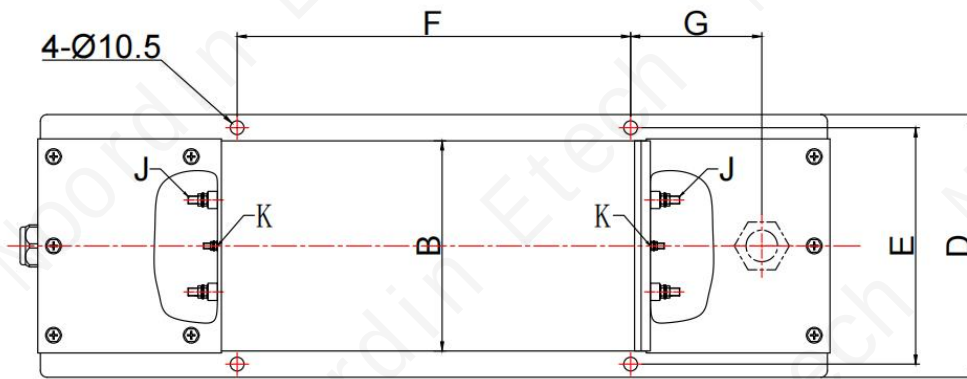
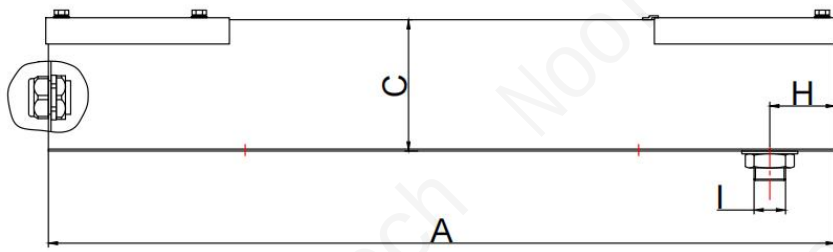


Fig 2

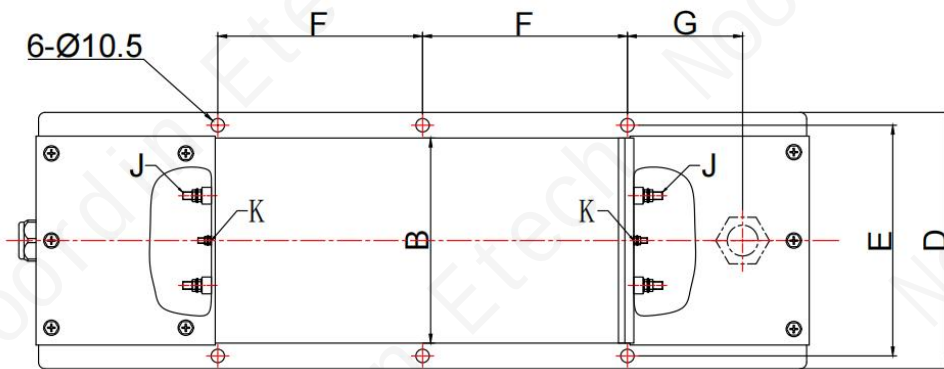
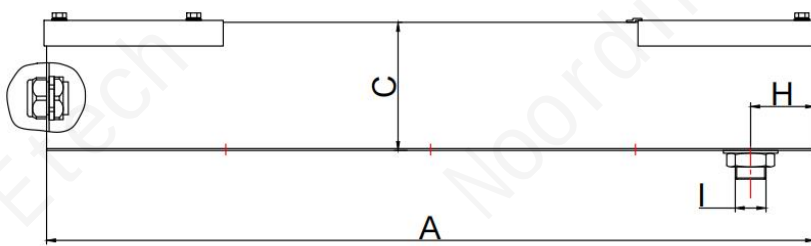


Fig 3

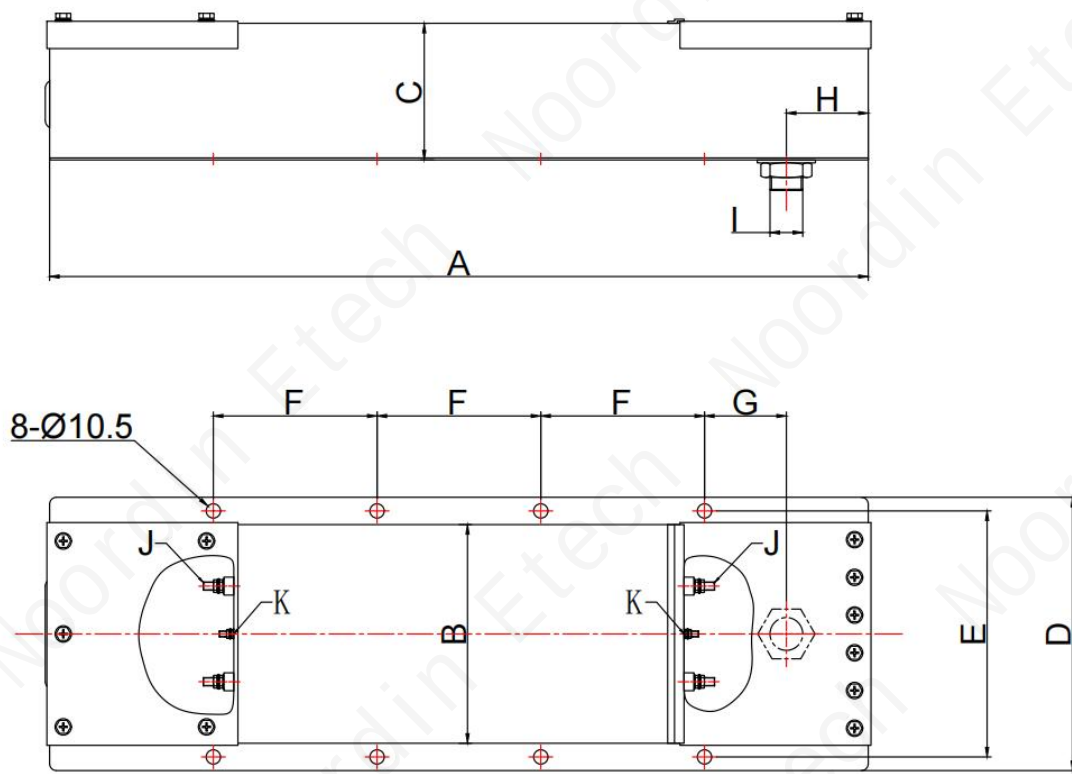


Fig 4

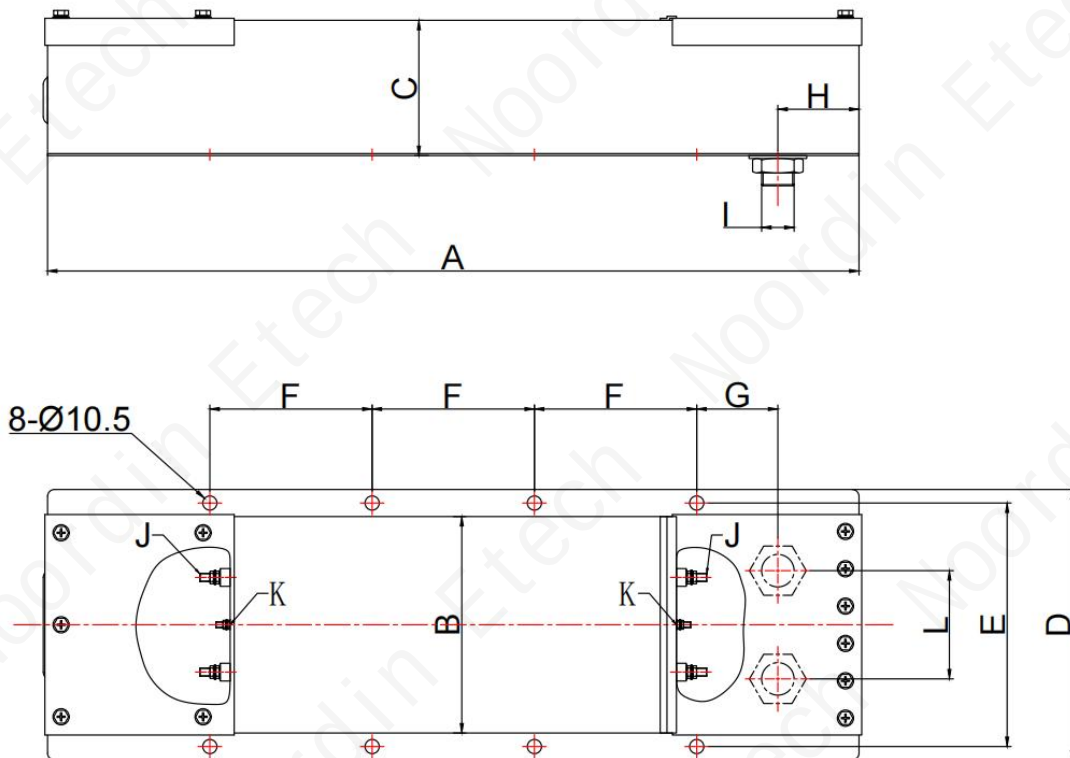


Fig 5

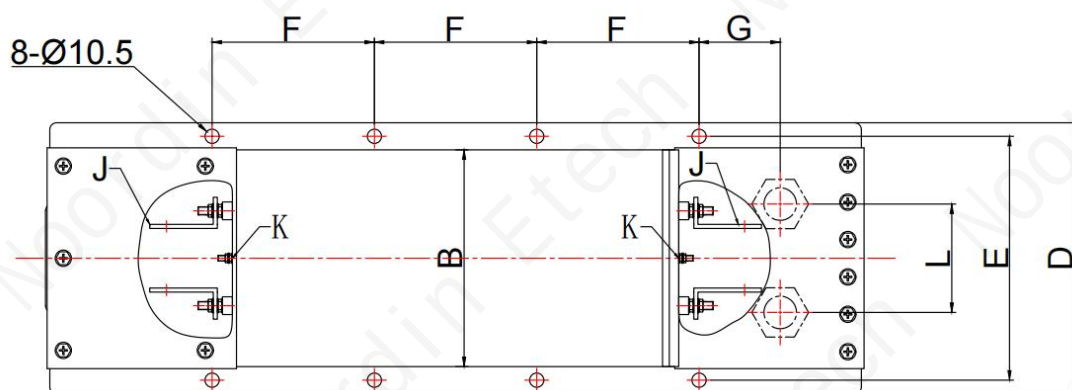
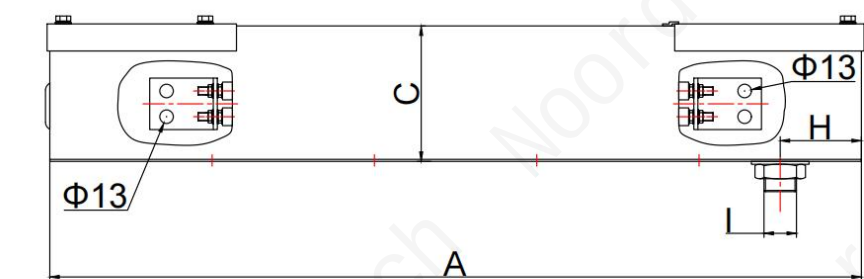


Fig 6

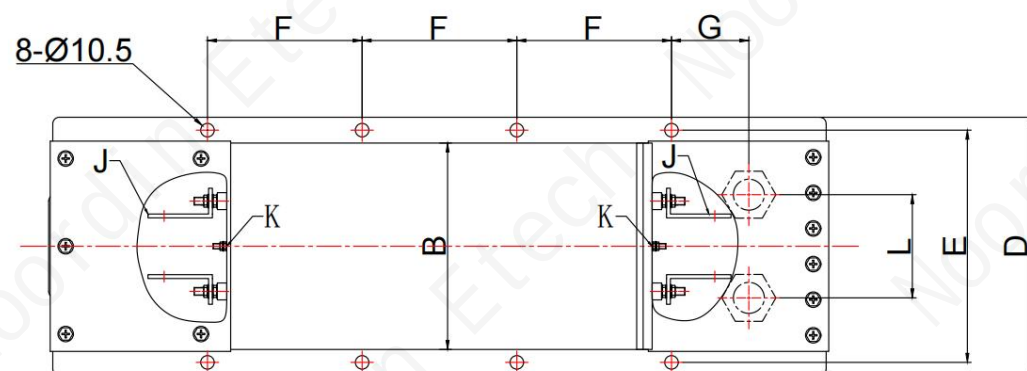
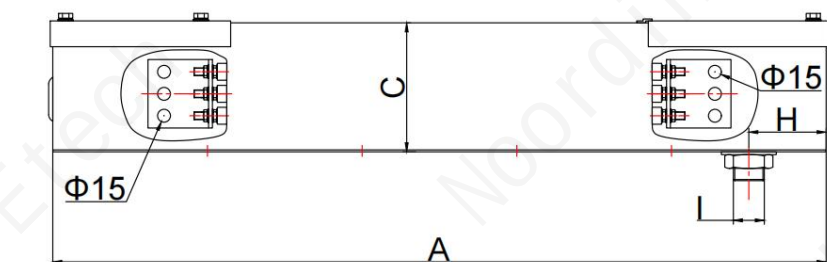
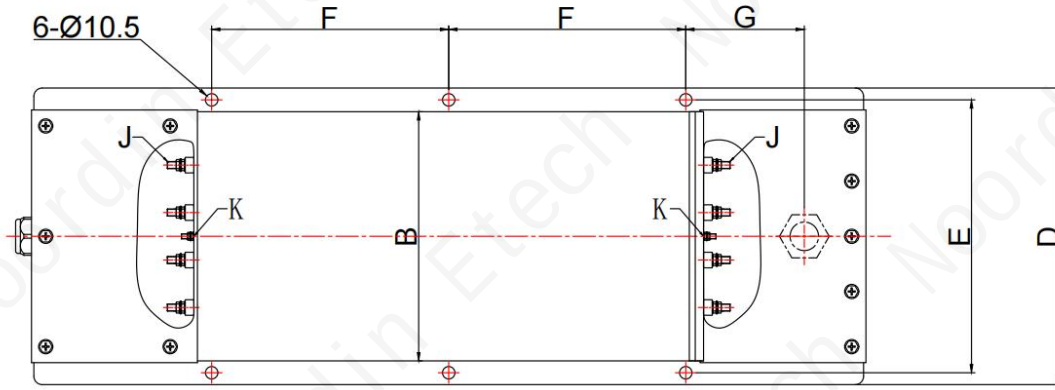
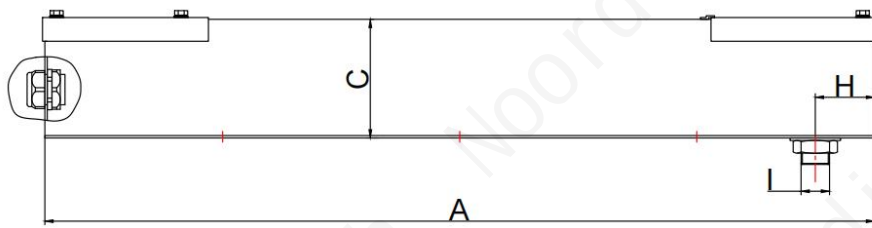
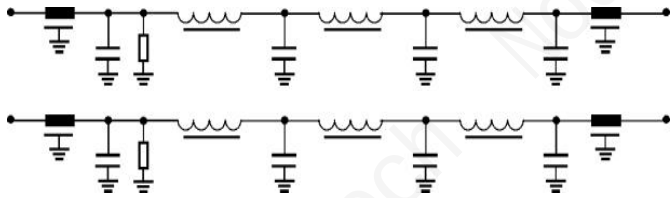


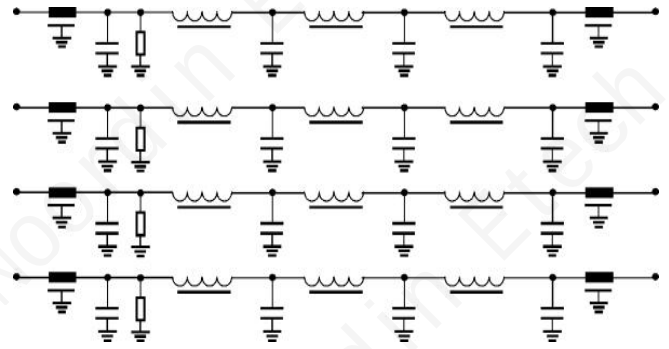
Fig 7



8. Circuit Diagrams



2-line filter

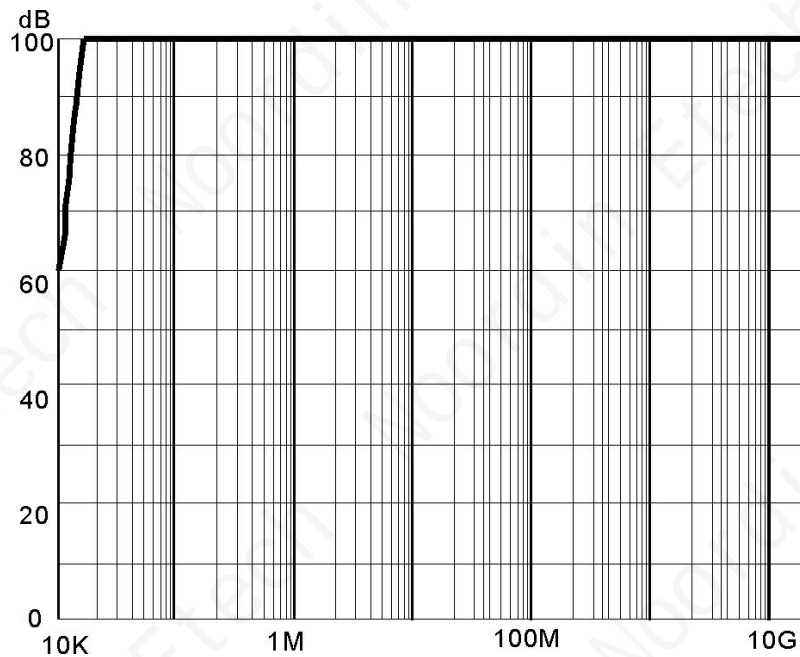


4-line filter

Three-stage power line filter

9. Insertion Loss

Frequency of 14kHz-40GHz, Insertion loss over 100dB



Three-stage power line filter

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