



Filters for Shielded Rooms & Anechoic Chambers

EMC/EMI Filters
100dB from 14kHz to 40GHz
(V2021)

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About WEMC

WEMC Technology Co., Ltd. is a leading filter specialist in China. We have over 20 years of expertise in the design, development and production of high performance RFI/EMC/ filters.

Located in TianMu Lake Industrial park of LiYang City in southern Jiangsu province at the Yangtze River Delta, it is in an area of over 20,000 square meters of modern building.

Our commitment to RFI/EMC industry has resulted in a comprehensive range of filter products available from us. All manufacturing is done on site and we are approved to ISO 9001:2018 by UKAS Quality Management. Our products have awarded accreditation of UL, cUL, ROHS, CE and as well as some third party certificates.

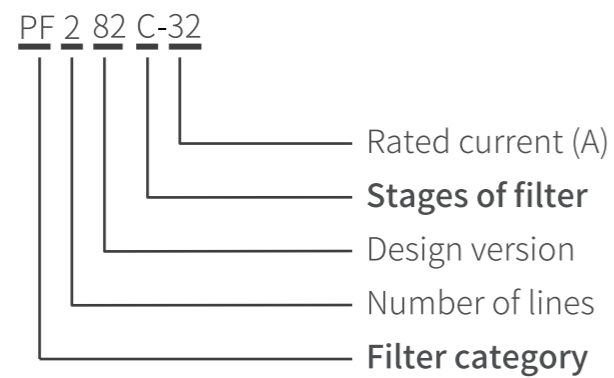
Our unrivalled technology, capability and experience enable us to design and build filters to satisfy the exacting requirements of industrial leading customers worldwide. Various products manufactured by WEMC range from power line filters with full spectrum performance up to 5000 Amps through to telephone, data and control filters as well as power line filter for grounding lines.

WEMC, Competent to Serve:

- ✓ **We have the people;**
- ✓ **We have the knowhow;**
- ✓ **We have the facility;**
- ✓ **We have the positive attitude.**

CONTENTS

Product designation and selection



Filter category:

PF=Power line Filter
SF=Signal Filter

Stages of filter:

A= Single stage filter
C= Three stage filter

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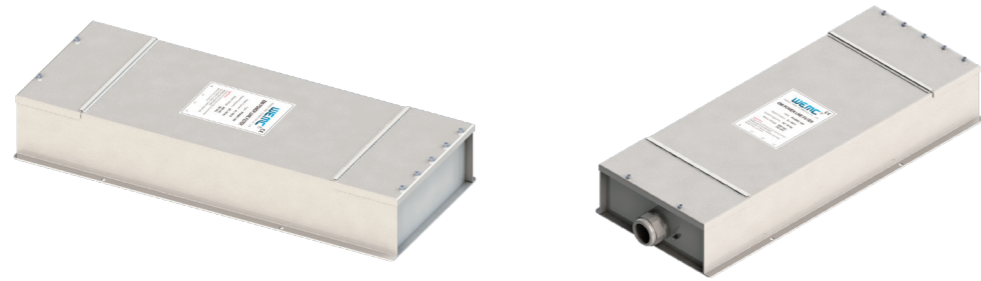
NB: All information inside this brochure is for reference only, subject to change without notice.

Specific filters available upon request, send an E-mail to: sales@wemctech.com for more information.

1. High performance filters for shielded room.

◆ Applications

For anechoic chamber, shielded room, cabinet and shelter, where the effective suppression of radiation emission required.



◆ Technical Data

Rate voltage V_R for two-line filters	250VAC/500VDC	line-line or line-case
Rate voltage V_R for four-line filters	440VAC	line-line
	250VAC	line-case
Rated Frequency f_R	DC -60 Hz	
Rate Current I_R	See characteristics	referred to +40°C ambient temperature
Number of lines	2/4	
Test voltage	1200VDC/2s	Line- Line or line-case
Voltage drop/phase ΔV	<1%	of V_R at 50Hz and I_R
Leakage current $I_{Leakage}$	See characteristics	@250VAC , 50Hz
Reactive Current $I_{Reactive}$	See characteristics	@250VAC , 50Hz
Discharge Time to Below 34V	30s	
Climatic category	25/085/21	

◆ Product Range

Type	$I_R(A)$	$I_{Leakage}(A)^*$	$I_{Reactive}(A)$	Terminal connection		Shielding Effectiveness (dB)
				In	Out	
PF286C-16	2×16	0.02	1.7	M6 Screw	M6 Screw	100dB, 14k~40GHz
PF286C-32	2×32	0.02	1.7	M6 Screw	M6 Screw	
PF286C-63	2×63	0.02	1.7	M6 Screw	M6 Screw	
PF286C-100	2×100	0.02	7.0	M12 Screw	M12 Screw	
PF286C-200	2×200	0.02	7.0	M12 Screw	M12 Screw	
PF286C-250	2×250	0.02	7.0	M12 Screw	M12 Screw	
PF286C-400	2×400	0.30	7.0	Bus bar	Bus bar	
PF286C-630	2×630	0.45	7.0	Bus bar	Bus bar	

Type	$I_R(A)$	$I_{Leakage}(A)^*$	$I_{Reactive}(A)$	Terminal connection		Shielding Effectiveness (dB)
				In	Out	
PF286C-800	2×800	0.58	7.0	Bus bar	Bus bar	100dB, 14k~40GHz
PF286C-1000	2×1000	0.58	7.0	Bus bar	Bus bar	
PF486C-16	4×16	0.005	1.7	M6 Screw	M6 Screw	
PF486C-32	4×32	0.005	1.7	M6 Screw	M6 Screw	
PF486C-63	4×63	0.005	1.7	M6 Screw	M6 Screw	
PF486C-100	4×100	0.005	7.0	M12 Screw	M12 Screw	
PF486C-200	4×200	0.005	7.0	M12 Screw	M12 Screw	
PF486C-250	4×250	0.005	7.0	M12 Screw	M12 Screw	
PF486C-400	4×400	0.08	7.0	Bus bar	Bus bar	
PF486C-630	4×630	0.1	7.0	Bus bar	Bus bar	
PF486C-800	4×800	0.12	7.0	Bus bar	Bus bar	
PF486C-1000	4×1000	0.12	7.0	Bus bar	Bus bar	
PF486C-1200	4×1200	0.18	7.0	Bus bar	Bus bar	
PF486C-1400	4×1400	0.18	7.0	Bus bar	Bus bar	

* If voltage between neutral and earth is 0V

◆ Dimensional diagrams

Diagram 1 →

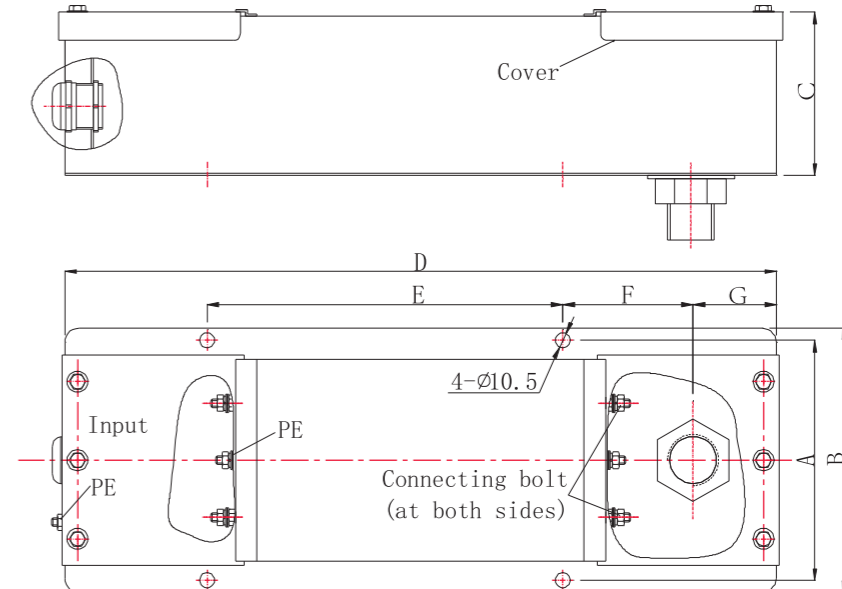


Diagram 2 →

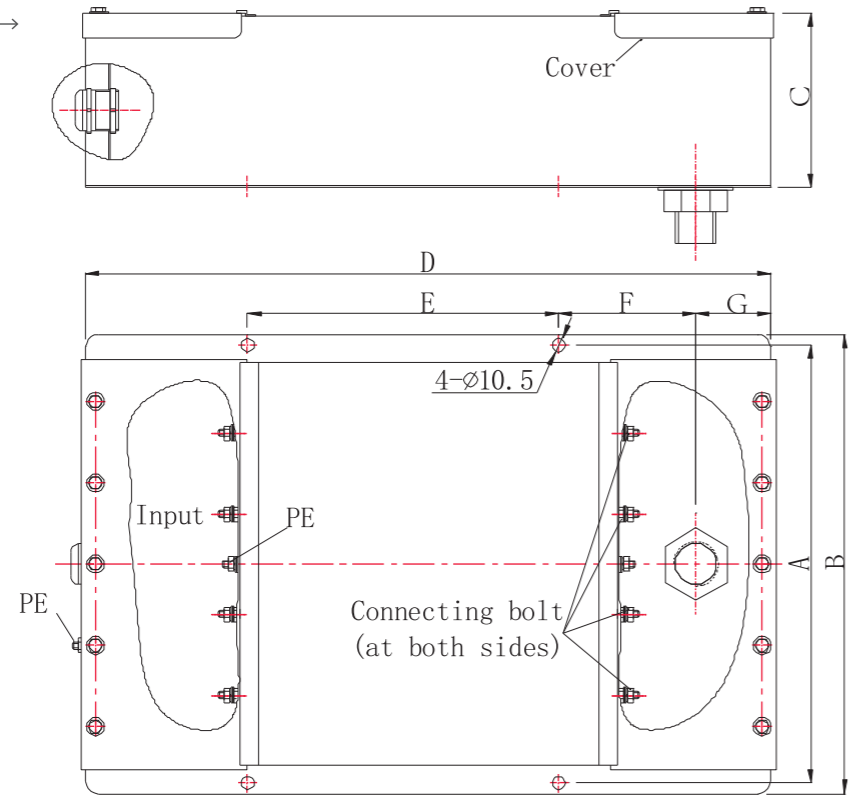


Diagram 4 →

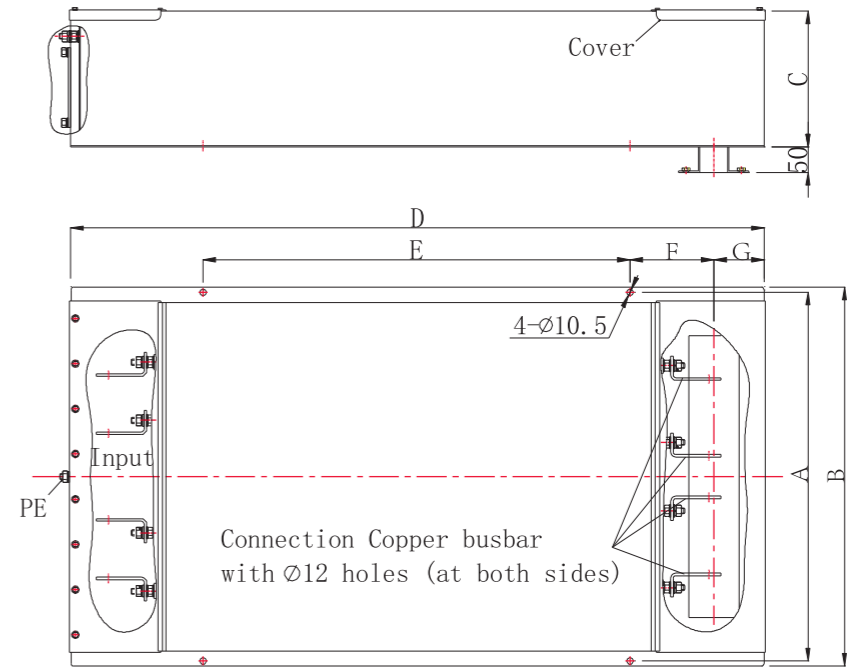
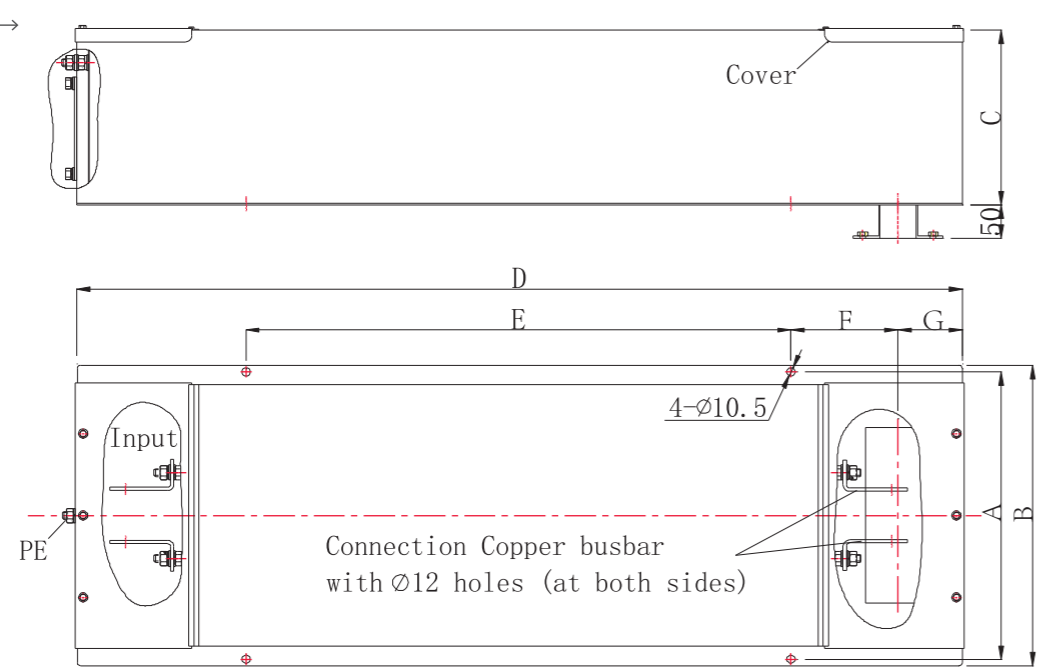


Diagram 3 →



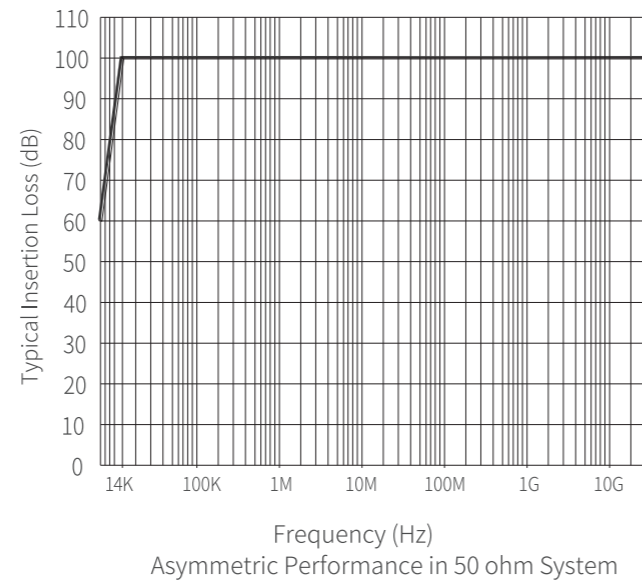
◇ Available dimensions (mm)

Type	A	B	C	D	E	F	G	Penetration	Outline drawing
PF286C-16	188	205	120	750	450	110	80	M24 conduit screw	1
PF286C-32									
PF286C-63	188	205	140	920	620	110	80	M33 conduit screw	1
PF286C-100									
PF286C-200	228	245	155	960	450	205	80	M60 conduit screw	1
PF286C-250									
PF286C-400	336	356	205	1330	850	140	120	Flange	3
PF286C-630									3
PF286C-800									3
PF286C-1000									3
PF486C-16	228	305	120	750	450	110	80	M33 conduit screw	2
PF486C-32									
PF486C-63	348	365	140	920	620	110	80	M33 conduit screw	2
PF486C-100									
PF486C-200	348	365	155	960	450	205	80	M60 conduit screw	2
PF486C-250									
PF486C-400	536	556	205	1360	850	170	120	Flange	4
PF486C-630									4
PF486C-800									4
PF486C-1000									4
PF486C-1200									4
PF486C-1400									4

2. High performance filters for anechoic chamber

◆ Applications

For anechoic chamber where the effective suppression of both conduction and radiation emission required.



◆ Technical Data

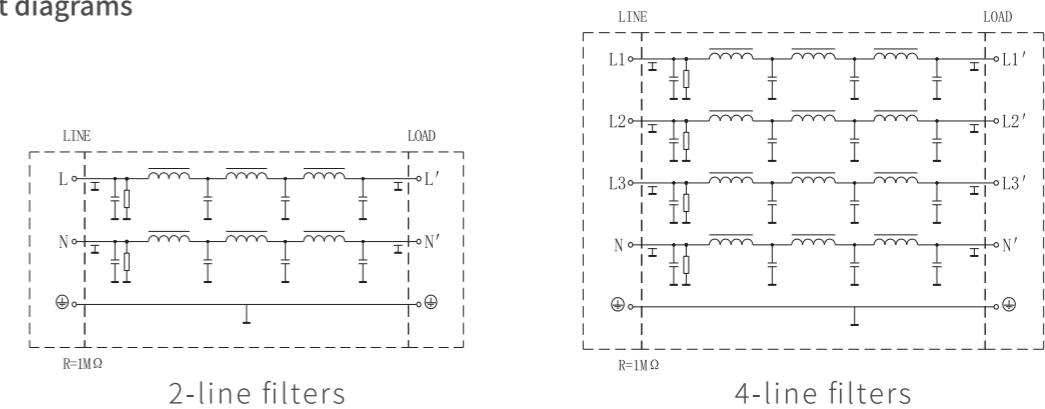
Rate voltage V_R for two-line filters	250VAC/500VDC	line-line or line-case
Rate voltage V_R for four-line filters	440VAC	line-line
	250VAC	line-case
Rated Frequency f_r	DC -60 Hz	
Rate Current I_R	See characteristics	referred to +40°C ambient temperature
Number of lines	2 or 4	
Insertion Loss, Per MIL-STD-220C	See characteristics	14k - 40GHz
DC Resistance	See characteristics	Each Line
Power Dissipation	See characteristics	At Rated Current
Test Voltage	1200VDC/2s	Line- Line or line-case
Voltage Drop /Phase ΔV	<1%	of V_R at 50Hz and I_R
Leakage Current $I_{Leakage}$	See characteristics	@250VAC , 50Hz
Reactive Current $I_{Reactive}$	See characteristics	@250VAC , 50Hz
Discharge Time to Below 34V	30s	
Climatic category	25/085/21	

◆ Product Range

Type	I_R (A)	$I_{Leakage}$ (A)*	$I_{Reactive}$ (A)	DC Resistance (m Ω)	Power dissipation (w)	Connection	Insertion loss (dB)
PF282C-16	2×16	3.5	3.5	<70	<40	M6 Screw	100dB, 14k~40GHz
PF282C-32	2×32	5	5	<20	<40	M6 Screw	
PF282C-63	2×63	5	5	<15	<90	M6 Screw	
PF282C-100	2×100	9	9	<5	<120	M12 Screw	
PF282C-150	2×150	9	9	<3	<140	M12 Screw	
PF482C-16	4×16	0.7	3.5	<70	<70	M6 Screw	
PF482C-32	4×32	0.9	5	<20	<80	M6 Screw	
PF482C-63	4×63	0.9	5	<15	<170	M6 Screw	
PF482C-100	4×100	1.7	9	<5	<220	M12 Screw	
PF482C-150	4×150	1.7	9	<3	<270	M12 Screw	
PF182C-200	200	9	9	<2.5	<120	M12 Screw	

* If voltage between neutral and earth is 0V

◆ Circuit diagrams



◆ Dimensional diagrams

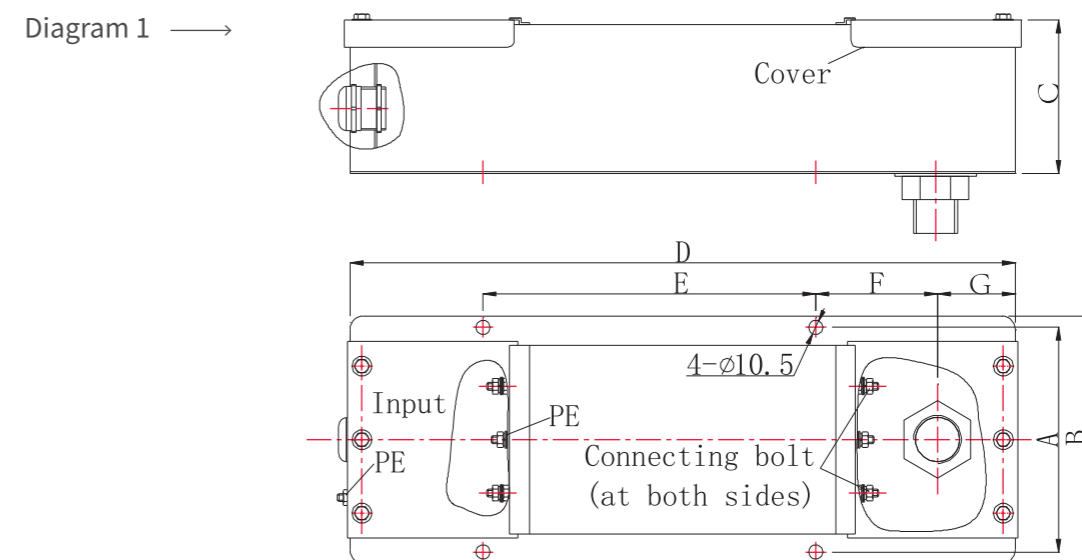


Diagram 2 →

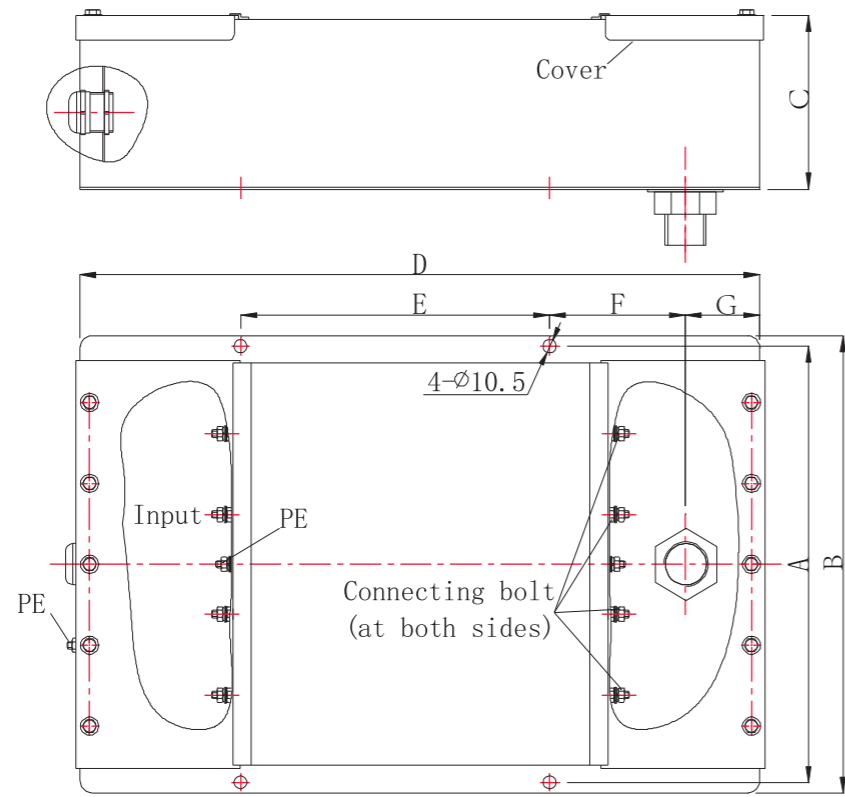


Diagram 4 →

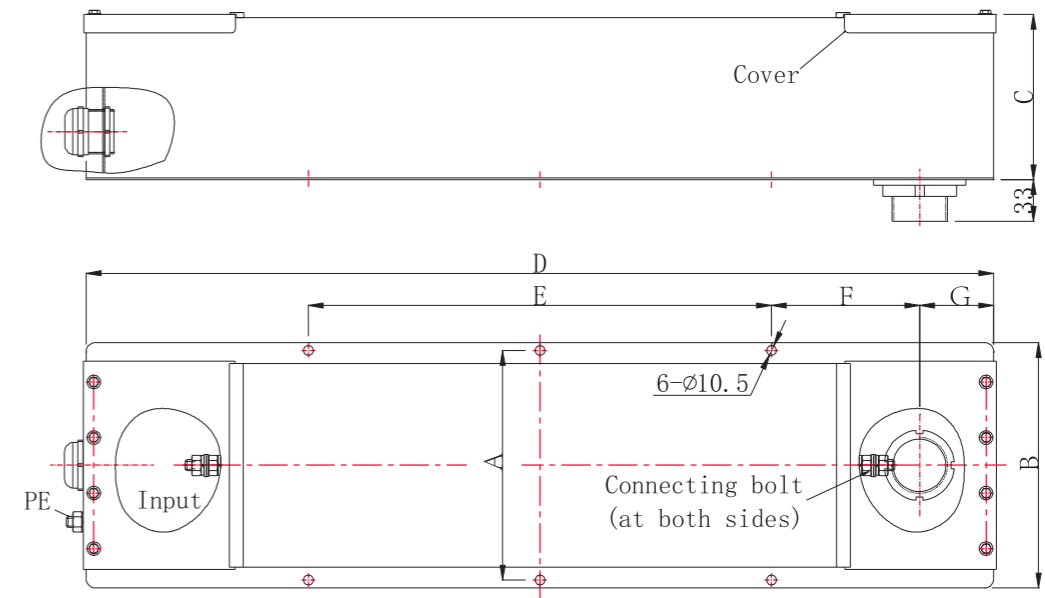
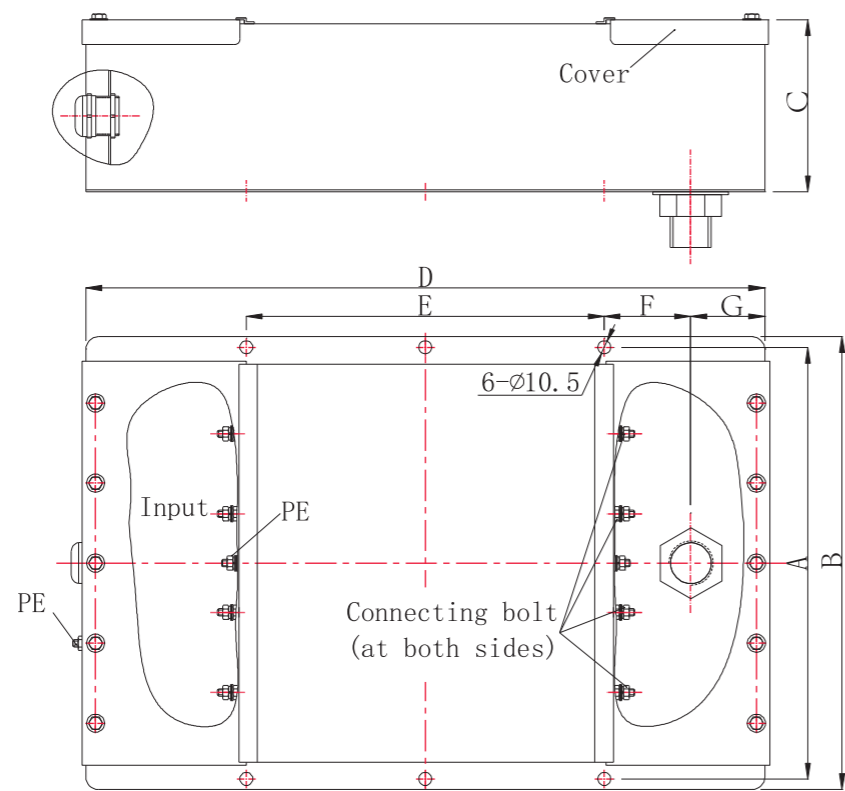


Diagram 3 →



◇ Available dimensions (mm)

Type	A	B	C	D	E	F	G	Penetration	Outline drawing
PF282C-16	188	205	120	750	450	110	80	M24 conduit screw	1
PF282C-32									
PF282C-63	188	205	140	920	620	110	80	M33 conduit screw	1
PF282C-100	288	305	180	1180	800	110	80	M60 conduit screw	1
PF282C-150									
PF482C-16	288	305	120	750	450	110	80	M33 conduit screw	2
PF482C-32									
PF482C-63	348	365	140	920	620	110	80	M33 conduit screw	2
PF482C-100	348	365	180	1480	1000	160	80	M60 conduit screw	3
PF482C-150									
PF182C-200	253	270	240	1330	800	185	80	M60 conduit screw	4

3. The traditional power line filter

Applications

For anechoic chamber, shielded room, cabinet and shelter, where the effective suppression of radiation emission required.



Technical Data

Rate voltage V_R for two-line filters	250VAC/500VDC	line-line or line-case
Rate voltage V_R for four-line filters	440VAC	line-line
	250VAC	line-case
Rated Frequency f_R	DC -60 Hz	
Rate Current I_R	See characteristics	referred to +40°C ambient temperature
Number of lines	2/4	
Test voltage	1200VDC/2s	Line- Line or line-case
Voltage drop/phase ΔV	<1%	of V_R at 50Hz and I_R
Leakage current $I_{Leakage}$	See characteristics	@250VAC , 50Hz
Reactive Current $I_{Reactive}$	See characteristics	@250VAC , 50Hz
Discharge Time to Below 34V	30s	
Climatic category	25/085/21	

Product Range

Type	I_R (A)	$I_{Leakage}$ (A)*	Terminal connection		Insertion Loss
			In	Out	
PF206C-6	2×6	0.002	Line legs	Line legs	100dB, 14k-40GHz
PF206C-16	2×16	0.02	M6 Screw	Line legs	
PF206C-32	2×32	0.02	M6 Screw	Line legs	
PF206C-63	2×63	0.02	M6 Screw	Line legs	
PF206C-100	2×100	0.02	M12 Screw	Line legs	
PF206C-200	2×200	0.02	M12 Screw	Line legs	
PF206C-250	2×250	0.02	M12 Screw	Line legs	
PF406C-16	4×16	0.005	M6 Screw	Line legs	
PF406C-32	4×32	0.005	M6 Screw	Line legs	
PF406C-63	4×63	0.005	M6 Screw	Line legs	
PF406C-100	4×100	0.005	M12 Screw	Line legs	
PF406C-200	4×200	0.005	M12 Screw	Line legs	
PF406C-250	4×250	0.005	M12 Screw	Line legs	

Type	I_R (A)	$I_{Leakage}$ (A)*	Terminal connection		Insertion Loss
			In	Out	
PF202C-16	2×16	3.5	M6 Screw	Line legs	100dB, 14k-40GHz
PF202C-32	2×32	5	M6 Screw	Line legs	
PF202C-63	2×63	5	M6 Screw	Line legs	
PF202C-100	2×100	9	M12 Screw	Line legs	
PF202C-150	2×150	9	M12 Screw	Line legs	
PF402C-16	4×16	0.7	M6 Screw	Line legs	
PF402C-32	4×32	0.9	M6 Screw	Line legs	
PF402C-63	4×63	0.9	M6 Screw	Line legs	
PF402C-100	4×100	1.7	M12 Screw	Line legs	
PF402C-150	4×150	1.7	M12 Screw	Line legs	

* If voltage between neutral and earth is 0V

Dimensional diagrams

Diagram 1 →

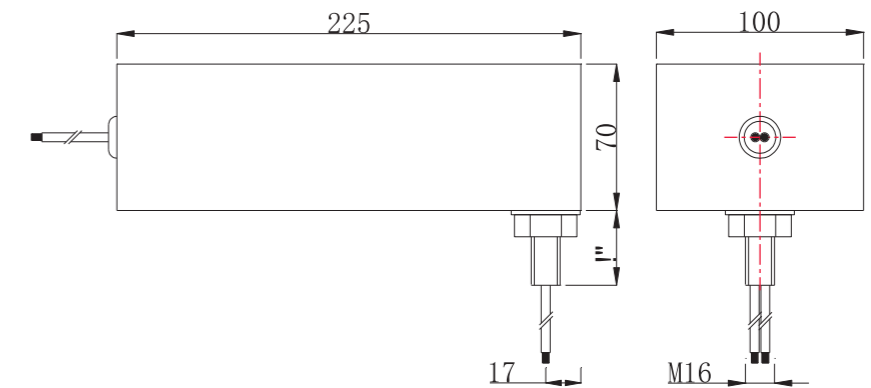


Diagram 2 →

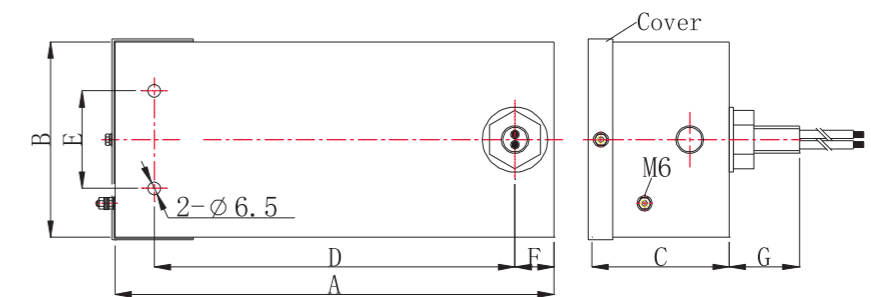


Diagram 3 →

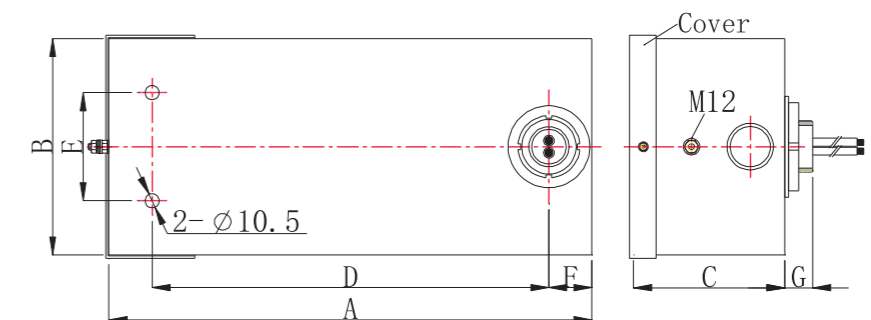


Diagram 4 →

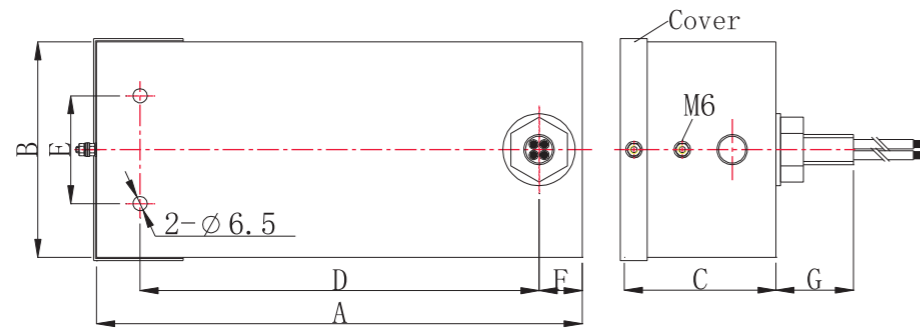


Diagram 5 →

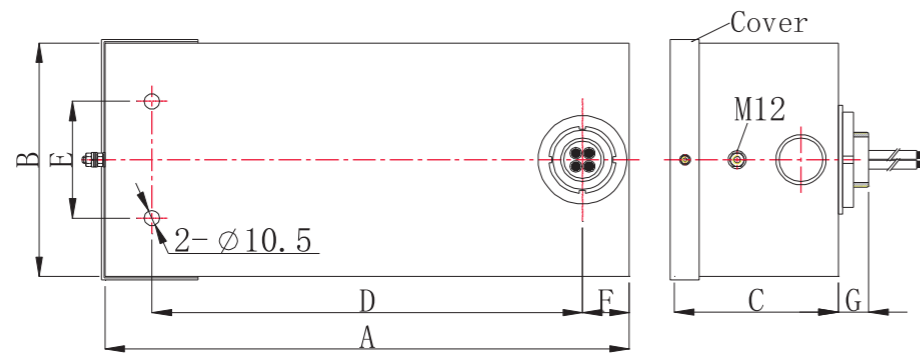
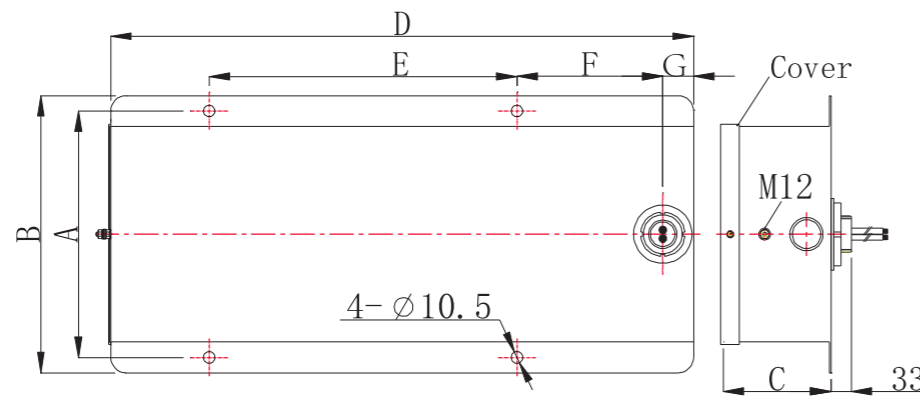


Diagram 6 →



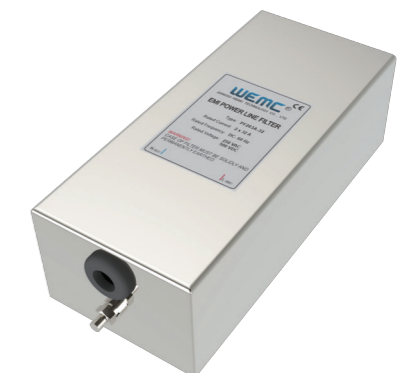
◇ Available dimensions (mm)

Type	A	B	C	D	E	F	G	Penetration	Outline drawing
PF206C-6								M16 conduit screw	1
PF206C-16	620	120	80	535	60	50	45	M33 conduit screw	2
PF206C-32									
PF206C-63	800	160	120	715	80	50	45	M33 conduit screw	2
PF206C-100	880	200	150	790	120	50	33	M60 conduit screw	3
PF206C-200									
PF206C-250									
PF406C-16	720	260	100	635	140	50	45	M33 conduit screw	4
PF406C-32									
PF406C-63	900	320	120	815	160	50	45	M33 conduit screw	4
PF406C-100	900	320	150	790	180	50	33	M60 conduit screw	5
PF406C-200									
PF406C-250	900	360	150	790	180	50	33	M60 conduit screw	5
PF202C-16	720	160	100	635	60	50	45	M33 conduit screw	2
PF202C-32									
PF202C-63	800	160	120	715	80	50	45	M33 conduit screw	2
PF202C-100	280	300	160	1020	600	200	50	M60 conduit screw	6
PF202C-150									
PF402C-16	720	260	100	635	140	50	45	M33 conduit screw	4
PF402C-32									
PF402C-63	900	320	120	815	160	50	45	M33 conduit screw	4
PF402C-100	430	450	160	1050	600	200	50	M60 conduit screw	6
PF402C-150									

4. Power line filters for shielded cabinet

◇ Applications

This series of power line filters are specially designed for well-grounded shielded cabinet with rated voltage of 250VAC/50Hz. It is compact and in compliance with class B and C standards for shielded Cabinet.

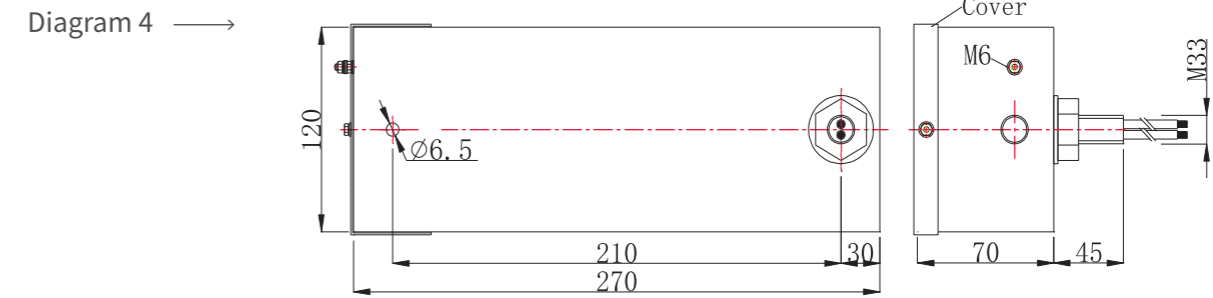
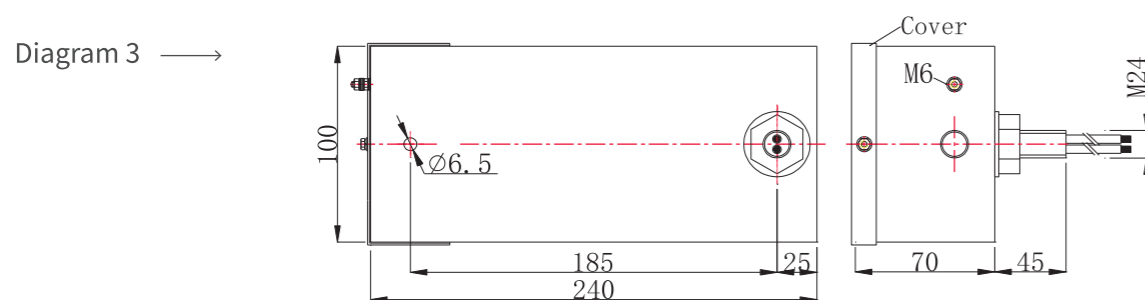
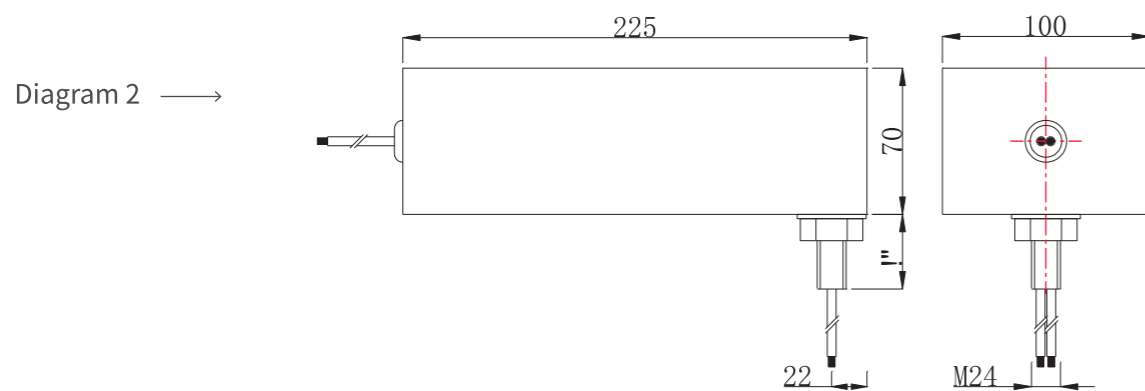
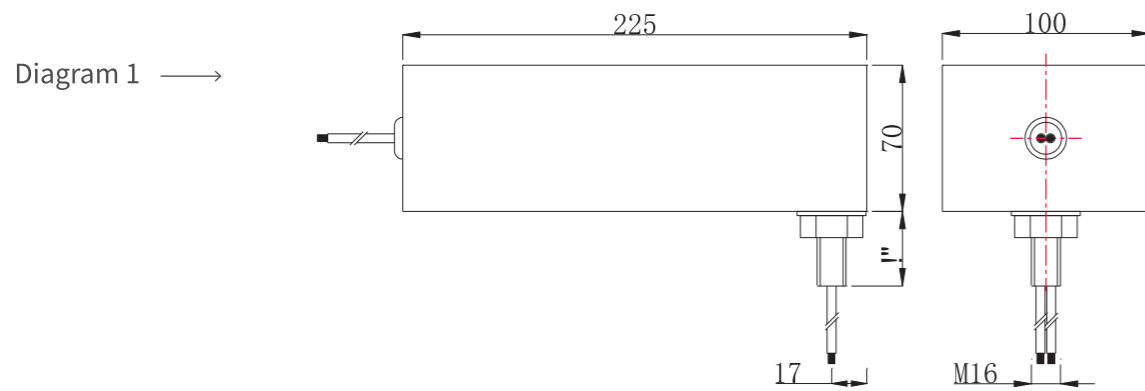


◇ Product Range

Type	I _R (A)	I _{Leakage} (A)*	Outline drawing	Shielding Effectiveness (dB)
PF203C-6	2×6	0.7	1	100dB, 14k-40GHz
PF203C-16	2×16	0.7	1	
PF203A-20	2×20	0.005	1	100dB, 150k-40GHz
PF203A-32	2×32	0.005	2	
PF201-16	2×16	0.005	3	80dB, 20M-40GHz
PF201-32	2×32	0.005	3	
PF201-63	2×63	0.005	4	

* If voltage between neutral and earth is 0V

◇ Dimensional diagrams



5. Feedthrough filters

◇ Applications

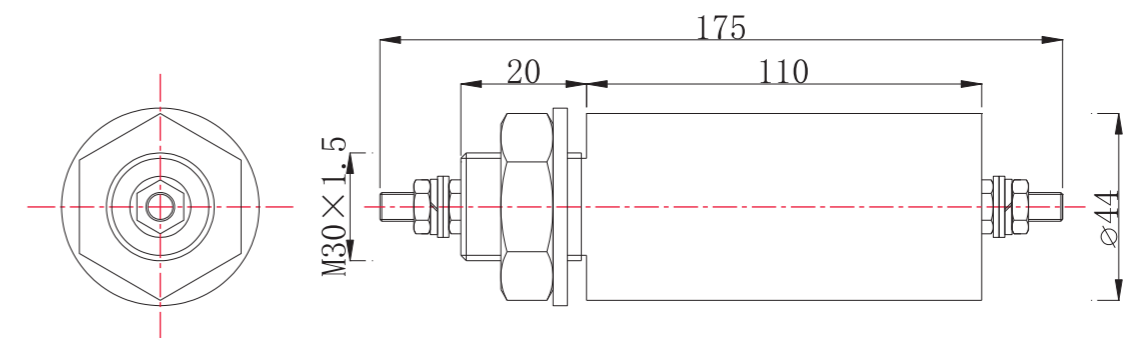
Used for EMI suppression of all electrical installations and equipment.



◇ Product Range

Type	I _R (A)	Screw	Insertion loss (dB)
FC-32	32	M6	100dB, 10M-40GHz
FC-63	63	M6	
FC-100	100	M8	

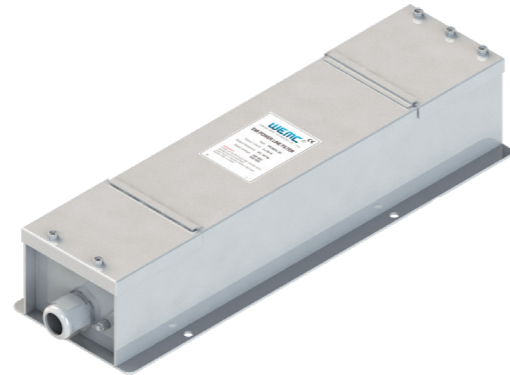
◇ Dimensional diagrams



6. Power line filters for ground wire

◆ Applications

Used for shielded room grounding systems.



◆ Product Range

Type	I _R (A)	Outline drawing	Shielding Effectiveness (dB)
PF181C-16	16	1	100dB, 14k-40GHz
PF181C-32	32		
PF181C-63	63		
PF181C-100	100	2	
PF181C-150	150		
PF181C-200	200		
PF181C-250	250	3	
PF181C-500	500		

◆ Dimensional diagrams

Diagram 1 →

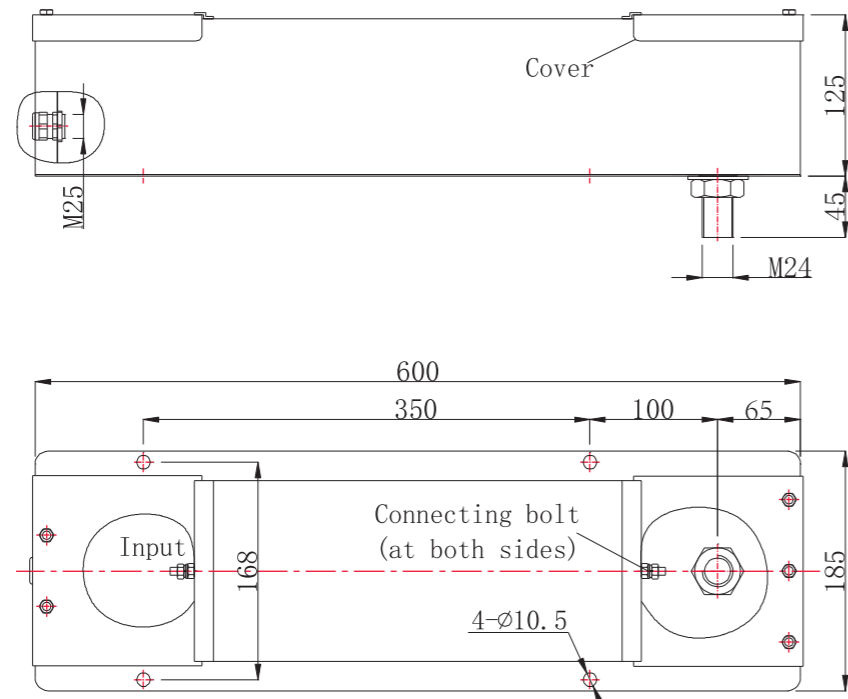


Diagram 2 →

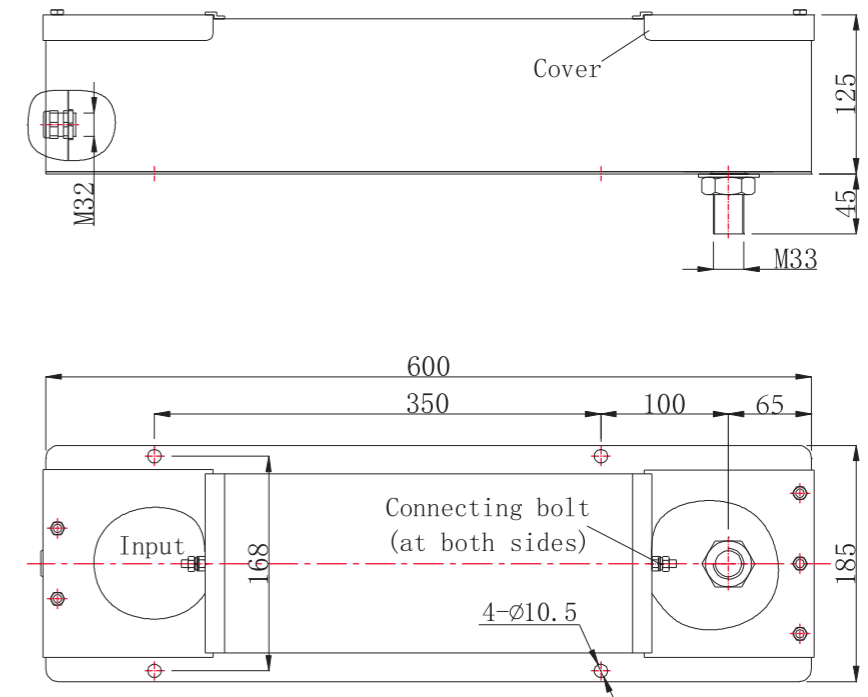
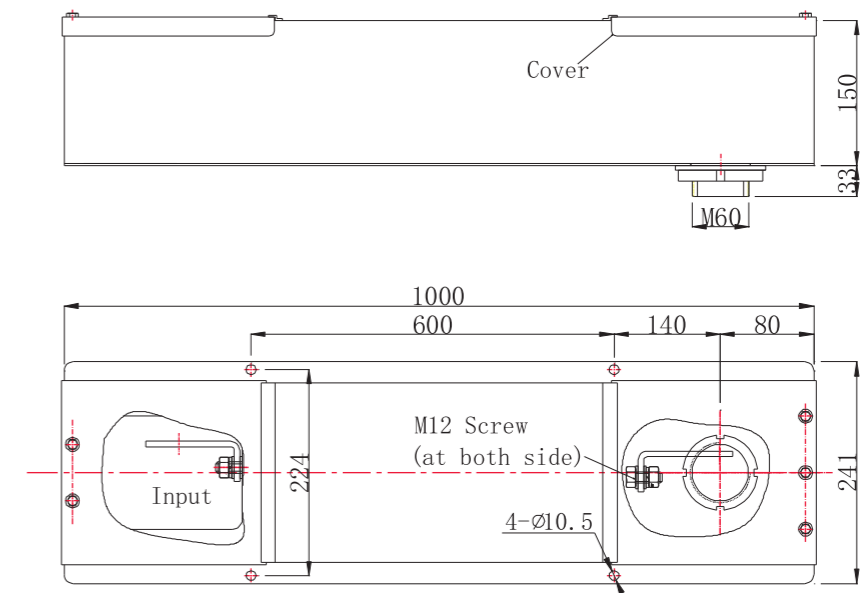


Diagram 3 →



7. Signal filters

Applications

This series of signal filters are used for telephone, data communication, control and fire alarm.



Product Range

Type	Rated voltage	Rated current	Outline drawing	Band pass	Typical applications
SF-T2	250VDC	2x0.3A	1	0-20kHz	Telephone, fax
SF210-1	250VAC	2x1A	1	0-100kHz	AC/DC switch signal Control signal
SF203-1	250VDC	2x1A	1	0-6MHz	Special fire alarm
SF103-1	250VDC	1x1	2	0-6MHz	Video signal
SF-LAN100	250VAC		3		100M/s Network signal
SF-LAN1000	250VAC		3		1000M/s Network signal

Note: Note: Above signal filters are in compliance with standards specified by National Military Class C and D shielded room and anechoic chamber.

Please specify number of control line and current volume if control lines are more than 2 or current is bigger than 1A.

Dimensional diagrams

Diagram 1 →

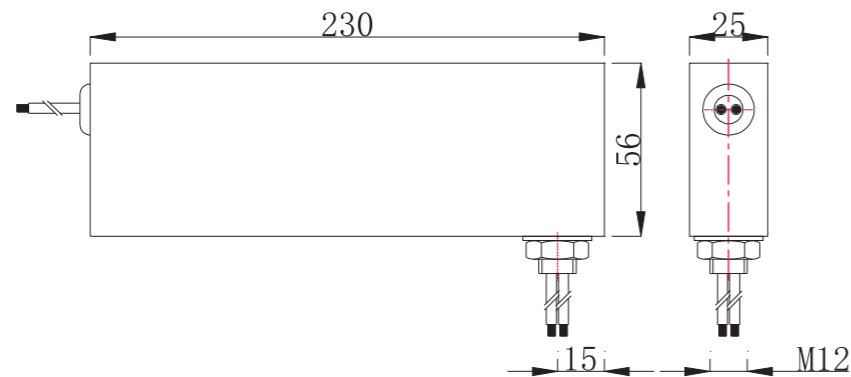


Diagram 2 →

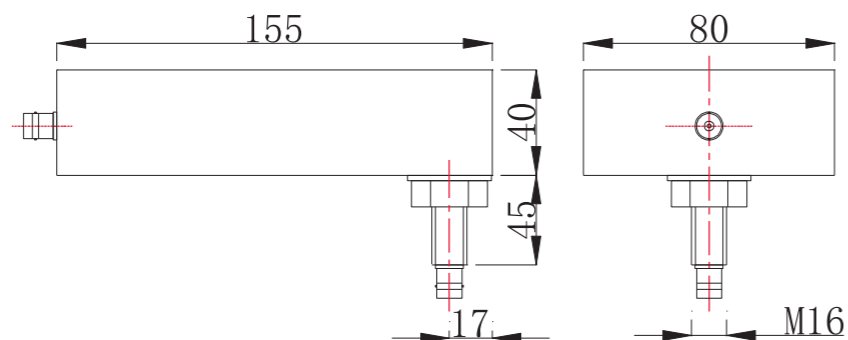
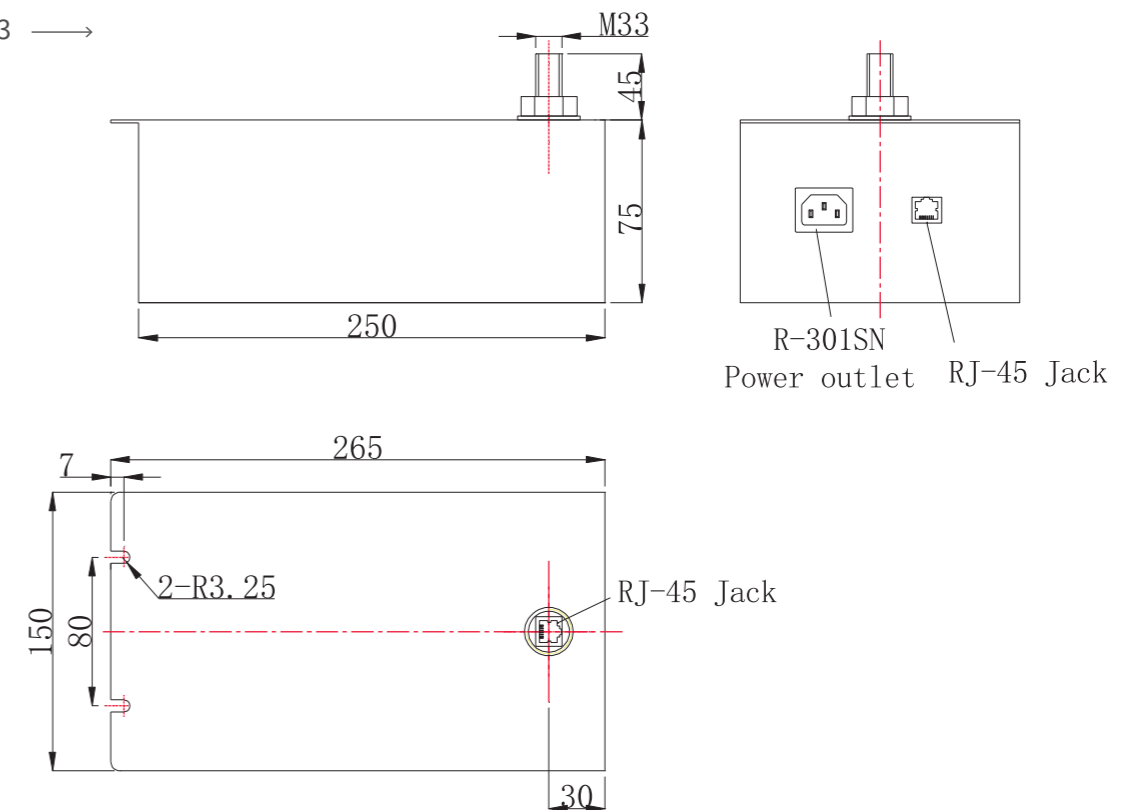


Diagram 3 →



8. UL listed power line filter

Applications

This series of UL power filters covers power line filters for MRI, power line filters for shielded room, and power line filters for EMC anechoic chamber, which effectively suppress radiated and conducted interference.

Technical Data

Rate voltage V_R for two-line filters	250VAC/250VDC	line-line or line-case
Rate voltage V_R for four-line filters	440VAC	line-line
	250VAC	line-case
Rated Frequency f_R	DC -60 Hz	
Rate Current I_R	See characteristics	referred to +40°C ambient temperature
Number of lines	2/4	
Test voltage	1414VDC@1min /2250VDC@1min	Line- Line / line-case
Voltage drop/phase ΔV	<1%	of V_R at 50Hz and I_R
Leakage current $I_{Leakage}$	See characteristics	@250VAC , 50Hz
Reactive Current $I_{Reactive}$	See characteristics	@250VAC , 50Hz
Discharge Time to Below 34V	30s	
Climatic category	25/085/21	

◇ Product Range

(1) High performance filters for shielded room (UL listed)

Type	I _R (A)	I _{Leakage} (A)*	I _{Reactive} (A)	Terminal connection		Shielding Effectiveness (dB)
				In	Out	
PF286C-16/UL	2×16	0.02	1.7	M6 Screw	M6 Screw	100dB, 14k~40GHz
PF286C-32/UL	2×32	0.02	1.7	M6 Screw	M6 Screw	
PF286C-63/UL	2×63	0.02	1.7	M6 Screw	M6 Screw	
PF286C-100/UL	2×100	0.02	7.0	M12 Screw	M12 Screw	
PF486C-16/UL	4×16	0.005	1.7	M6 Screw	M6 Screw	
PF486C-32/UL	4×32	0.005	1.7	M6 Screw	M6 Screw	
PF486C-63/UL	4×63	0.005	1.7	M6 Screw	M6 Screw	
PF486C-100/UL	4×100	0.005	7.0	M12 Screw	M12 Screw	

* If voltage between neutral and earth is 0V

(2) High performance filters for anechoic chamber (UL listed)

Type	I _R (A)	I _{Leakage} (A)*	I _{Reactive} (A)	DC Resistance (mΩ)	Power dissipation (w)	Connection	Insertion loss (dB)
PF282C-16/UL	2×16	3.5	3.5	<70	<40	M6 Screw	100dB, 14k~40GHz
PF282C-32/UL	2×32	5	5	<20	<40	M6 Screw	
PF282C-63/UL	2×63	5	5	<15	<90	M6 Screw	
PF282C-100/UL	2×100	9	9	<5	<120	M12 Screw	

* If voltage between neutral and earth is 0V

(3) Filter for MRI shielding power supply (UL listed)

Type	I _R (A)	I _{Leakage} (mA) *	Outline drawing	Insertion loss (dB)
PF205A-30	2×30	15.7	1	100dB, 10M-40GHz

* If voltage between neutral and earth is 0V

◇ Available dimensions (mm)

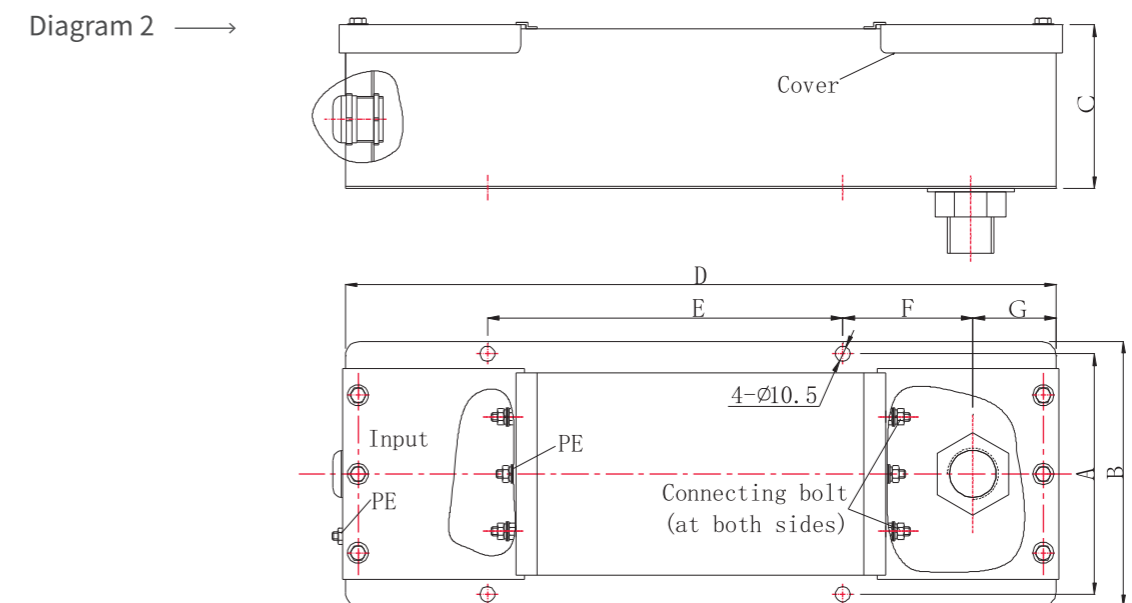
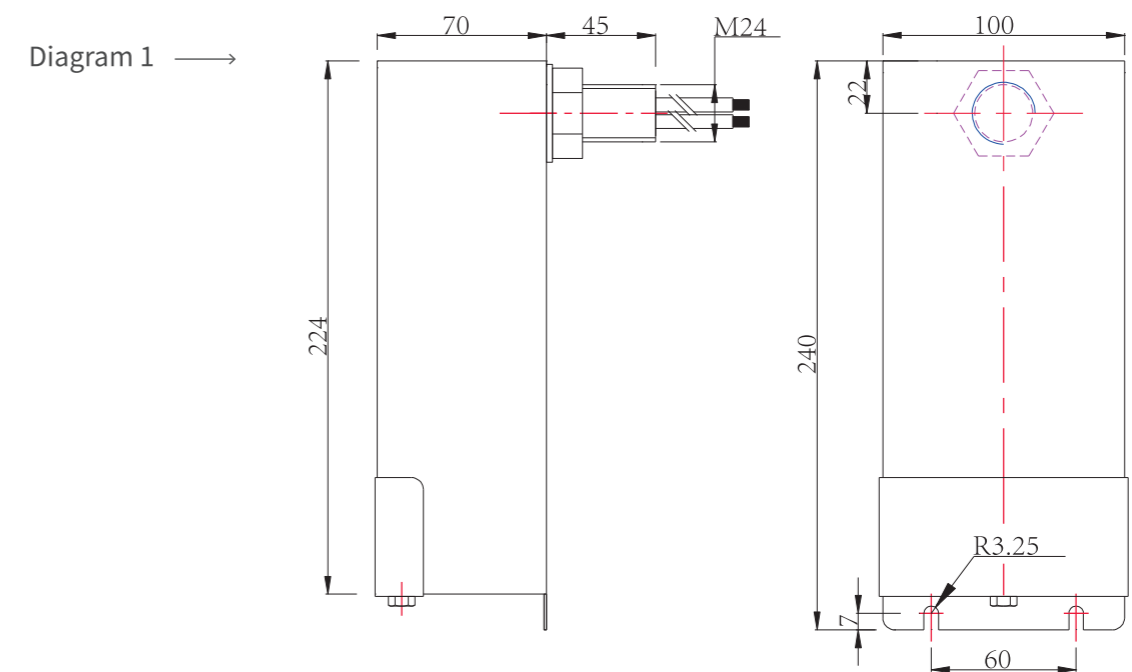
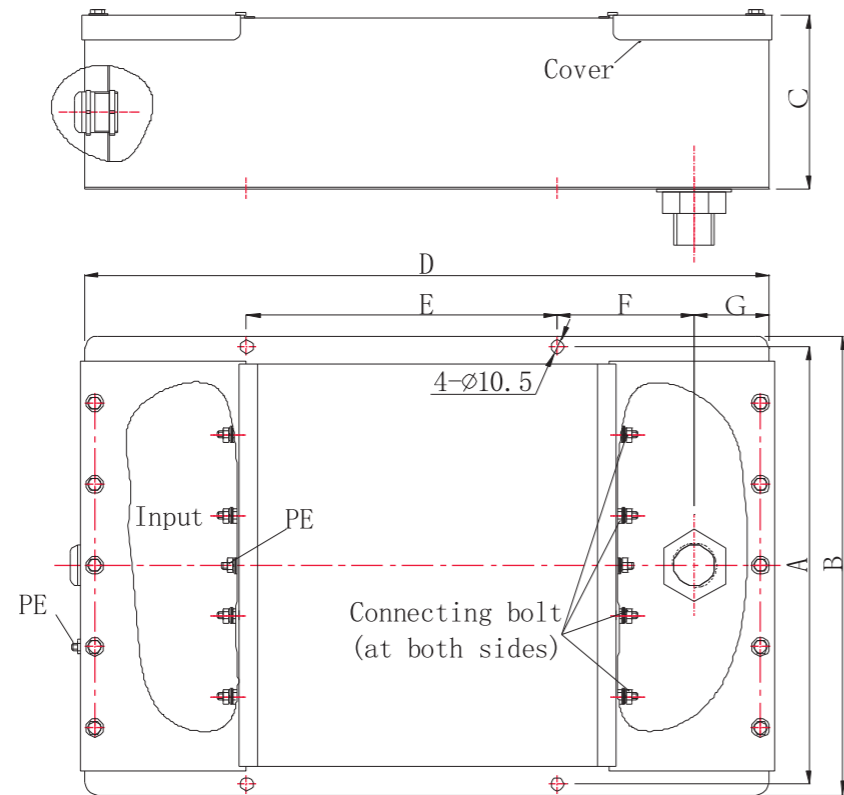


Diagram 3 →



◇ Available dimensions (mm)

Type	A	B	C	D	E	F	G	Penetration	Outline drawing
PF282C-16/UL	188	205	120	750	450	110	80	M24 conduit screw	2
PF282C-32/UL	248	265	120	850	470	110	80	M24 conduit screw	2
PF282C-63/UL	288	305	140	1020	640	110	80	M33 conduit screw	2
PF282C-100/UL	288	305	180	1180	800	110	80	M60 conduit screw	2
PF286C-16/UL	188	205	120	750	450	110	80	M24 conduit screw	2
PF286C-32/UL									
PF286C-63/UL	188	205	140	920	620	110	80	M33 conduit screw	2
PF286C-100/UL	228	245	155	960	450	205	80	M60 conduit screw	2
PF486C-16/UL	288	305	120	750	450	110	80	M33 conduit screw	3
PF486C-32/UL									
PF486C-63/UL	348	365	140	920	620	110	80	M33 conduit screw	3
PF486C-100/UL	483	500	155	1060	550	205	80	M60 conduit screw	3