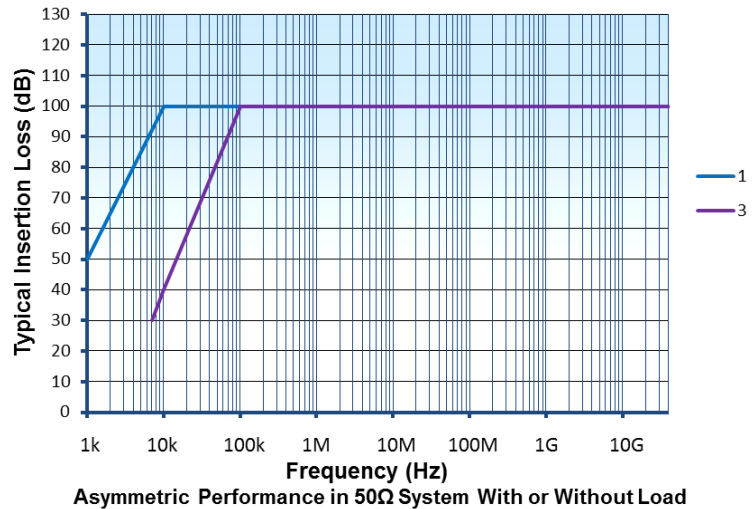




HIGH VOLTAGE HIGH PERFORMANCE 1500VDC POWER LINE FILTERS



Applications

From screened rooms to industrial power equipment, uncontrolled radio interference presents a common hazard. This range of filters is designed specifically for use on DC supplies up to 1500VDC. Applications include secure communications systems, computer installations, portable screened enclosures, and electric drive test chambers.

These filters have the same robust and reliable construction as MPE's Powerline AC filter designs providing a long service life and exceptional filtering.

General Specification

Maximum Rated Voltage	: 1500V d.c.
Proof Voltage	: 3000V d.c.
Rated Current	: As tabulated below
Insertion Loss	: See graph and table Curve 1 meets 100dB from 10kHz to >10GHz Curve 3 meets 100dB from 100kHz to >10GHz
Maximum Temperature Rise on Full Load	: 25°C (16°C for filters >800A)
Ambient Temperature Range	: -45°C to +85°C
Operating Temperature Range on Full Load	: -45°C to +50°C
Maximum Full Load Heat Dissipation	: As tabulated below
Discharge time to below 34V	: 1 min maximum from 1500V
Maximum Continuous Earth Leakage Current	: Dependent upon voltage ripple
Maximum Overload Current Rating	: 1.25 times rated current for 15 minutes
Maximum Short Circuit Fault Current Rating	: 20,000A for 1 second



Range

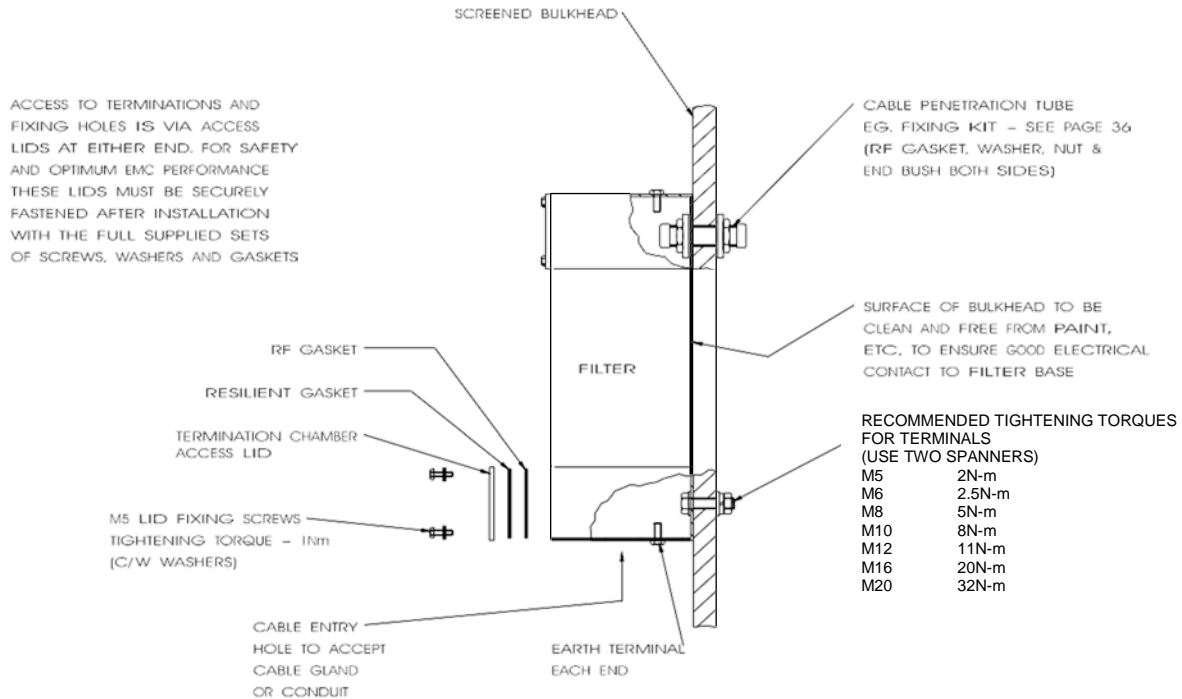
Current Rating I _R (A)*	MPE Part Number	Performance Curve	Volt Drop per line at Full Load (mV)	Heat Dissipation (W)	Major Dimensions (mm)			Case Size See Page 4	Approx Weight (kg)
					A	B	C		
Standard Performance 100dB @ 100kHz									
6	DS30945	3	500	7	425	175	90	c	12
16	DS30946	3	500	14	425	175	90	c	12
32	DS30947	3	500	21	550	205	95	e	16
63	DS30948	3	350	50	725	205	105	l	23
100	DS30917	3	250	60	760	205	120	n	28
200	DS30918	3	200	120	820	475	150	x	80
400	DS30919	3	150	150	1250	475	150	mm	110
800	DS30920	3	100	250	1554	500	285	N/A	175
1200	DS30921	3	76	350	1600	500	300	N/A	210
1600	DS30922	3	65	400	1800	500	350	N/A	350
2400	DS30923	3	60	500	2000	500	400	N/A	450
Extended Performance 100dB @ 10kHz									
6	DS30941	1	1200	15	725	175	90	k	15
16	DS30942	1	1200	36	725	175	90	k	15
32	DS30943	1	1200	55	820	350	120	q	42
63	DS30944	1	1000	115	970	350	120	r	62
100	DS30910	1	900	200	1206	350	150	s	100
200	DS30911	1	750	400	1206	573	162	t	150
400	DS30912	1	250	400	1750	650	180	z	240
800	DS30913	1	150	375	2400	500	285	N/A	280
1200	DS30914	1	115	550	2500	500	300	N/A	360
1600	DS30915	1	100	600	2900	500	350	N/A	440
2400	DS30916	1	90	750	Please Consult Factory				520

*@50°C. Current derating between 50°C and 85°C

For temperature, θ $I_{\theta} = I_R \sqrt{(85 - \theta)/35}$



Typical installation details are shown below.

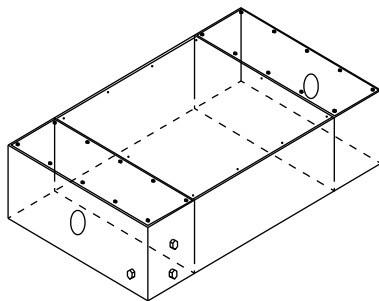


Cable Entry Options

The following standard cable entry hole positions are available on all rectangular filters with terminal compartments. The required cable entry is simply specified by adding the appropriate suffix to the filter part number as shown below. Other cable entries can be provided to special order.

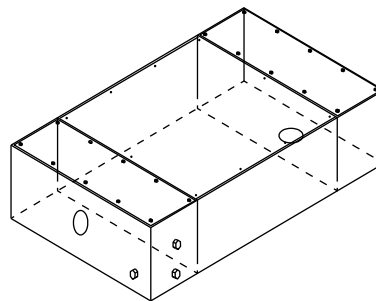
Suffix "C" denotes the standard version and this type will be supplied in the event of no cable entry suffix being specified.

PART NO. DS XXXXX/A



INPUT END

PART NO. DS XXXXX/C



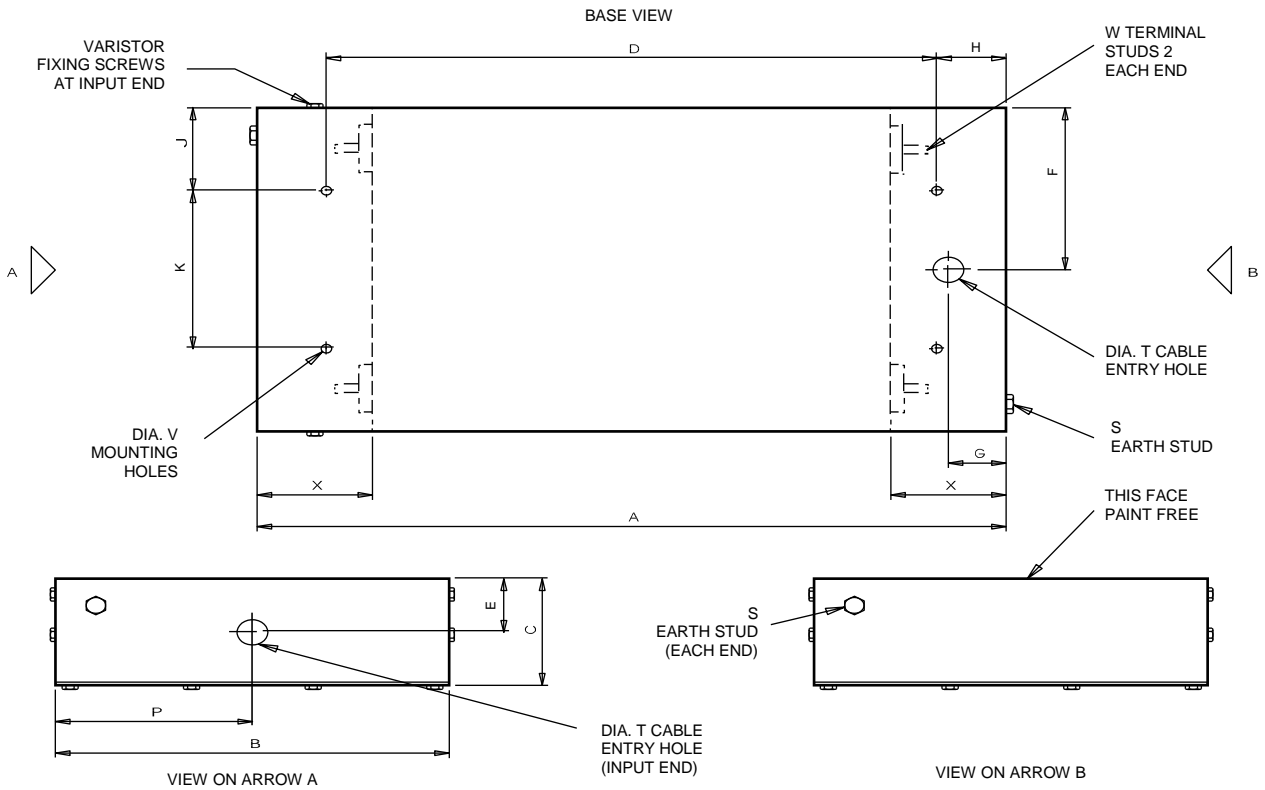
INPUT END



Dimensions and Mechanical Details – 6A to 400A

See below for the major dimensions of filters with current rating 400A of less. These filters are housed in electroplated steel cases.

Dimensions are tabulated below in mm. They apply to the standard cable entry style. (i.e. suffix C on filter part number - see page 3).



CASE SIZE	Table of Dimensions (mm)															
	A	B	C	D	E	F	G	H	J	K	P	S	T	V	W	X
c	425	175	90	327	45	88	45	49	24	127	88	M6	20	9	M5	85
e	550	205	95	487	48	103	45	31	61	83	103	M10	32	9	M8	85
k	725	175	90	627	45	88	45	49	24	127	88	M6	20	9	M5	85
l	725	205	105	621	48	103	55	52	61	83	103	M10	32	9	M8	110
n	760	205	120	656	48	103	55	52	61	83	103	M10	32	9	M8	110
q	820	350	120	710	60	175	55	55	110	130	175	M10	32	13	M8	110
r	970	350	120	860	60	175	55	55	110	130	175	M10	32	13	M8	110
s	1206	350	150	1130	75	175	60	38	110	130	175	M10	32	13	M8	120
t	1206	573	162	1130	81	286	75	38	110	353	286	M12	51	13	M12	135
x	820	475	150	680	75	238	70	70	110	255	238	M12	51	13	M12	140

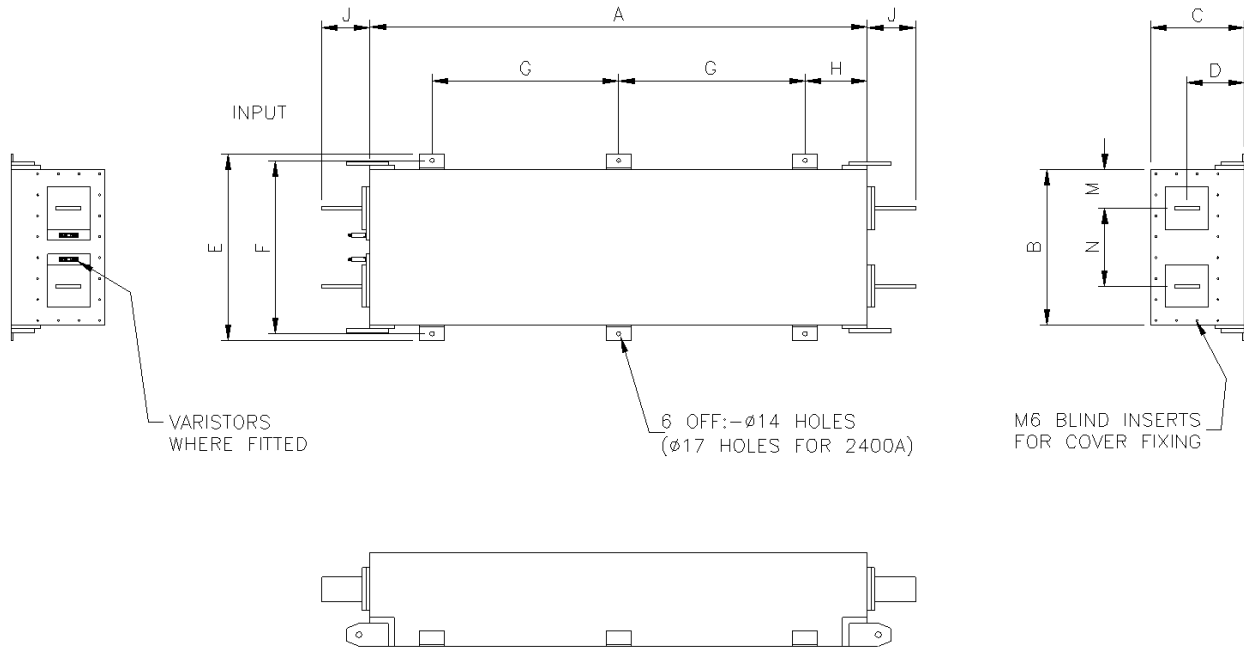


Dimensions and Mechanical Details – 800A to 2400A

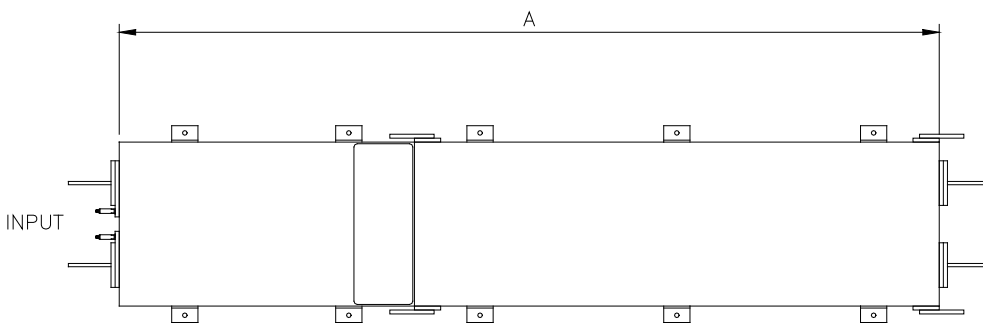
See below for the major dimensions of filters with current rating 800A or greater. These filters are housed in electroplated steel cases.

Dimensions are tabulated below in mm. Note that these filters have exposed busbar terminals and as such will require appropriate EMI and safety enclosures fitting at both input and output ends.

The transportation holes may be used for connection of a separate safety earth, if required.



Extended Performance Filters



Note: Extended performance filters are supplied as two interlocking parts for ease of handling and installation. An interface gasket is supplied to join the two sections.



OUTLINE DIMENSIONS

MPE Part Number	Filter Current Rating (A)	Dimensions of Standard Performance Filters (mm)												
		A	B	C	D	E	F	G	H	J	K	M	N	R
DS30920	800	1554	864	285	180	964	920	530	247	125	1420	162	180	125
DS30921	1200	1600	1000	300	185	1100	1056	600	200	155	1450	125	250	155
DS30922	1600	1800	1000	350	212	1100	1056	700	200	200	-	125	250	-
DS30923	2400	2000	1000	400	230	1112	1056	800	200	200	-	125	250	-
DS30913	800	2400	864	285	180	964	920	530	247	125	1420	162	180	125
DS30914	1200	2500	1000	300	185	1100	1056	600	200	155	1450	125	250	155
DS30915	1600	2900	1000	350	212	1100	1056	700	200	200	-	125	250	-
DS30916	2400	Please consult factory												

Terminal Details

Filter Current Rating (A)	Busbar Size (mm)
800	50 x 8
1200	80 x 10
1600	125 x 10
2400	127 x 16