

## DATASHEET

# Three Phase Common Mode HEMP Filter – TMF913

HEMP EMI power line filters are designed to protect electronic equipment from high-energy magnetic pulses and electromagnetic interference (EMI) that can be caused by events like nuclear explosions or lightning strikes. HEMP EMI filters are designed to provide high attenuation of electromagnetic interference across a wide frequency range. These filters are crucial in ensuring the reliability and functionality of sensitive electronic systems especially in military, aerospace, and high-security applications.

### Technical Specifications:

Rated Voltage	: 440VAC
Current Rating	: 6A to 3000A @50°C
Operating Frequency	: 50/60 Hz
Insulation Resistance	: >100MΩ @ 250VDC (Before Connecting Discharge Resistor)
Discharge Resistance	: Internally Connected
Dielectric Withstand	: 2500 VDC each Line to case (Before Connecting MOVs)

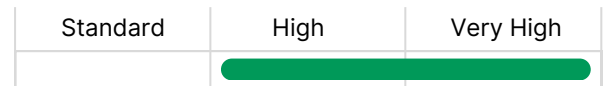
### Features:

- Designed to Handle Large Currents
- Integrated with Surge Suppression to Protect against voltage spikes
- Effectively Attenuates unwanted high-frequency Noise
- Protects equipment from conducted and radiated HEMP Pulses

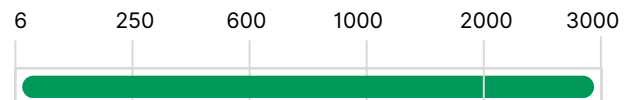
### Applications:

- EMP Shielded Mobile Shelters
- EMP Racks
- Command and Control Centers
- Data Centers
- Combat / Tracked Vehicles
- MIL Grade Panels
- Radar Power Supplies

### Performance Indicator:



### Rated Current (A):



Maximum Voltage drop per line	: Max 2% @ 240VAC
Short Pulse Common Mode	: 5kA (20ns/500ns-550ns) ≤ 10A
Short Pulse Line to Ground	: 2.5kA (20ns/500ns-550ns) ≤ 10A
Intermediate Pulse Common Mode	: 0.25kA (1.5µs/3ms-5ms) – No Damage
Intermediate Pulse Line to Ground	: 0.25kA (1.5µs/3ms-5ms) – No Damage
Overload Capability	: 140 % of rated current for 15 minutes
Operating Temperature	: -40°C to +50°C
Storage Temperature	: -40°C to +85°C
Enclosure Material	: CRCA-Plated
Finish	: Powder Coating / Paint
Design Corresponding to	: MIL-STD-188-125-1/2, MIL-PRF-15733J
Insertion Loss Performance	: 100dB attenuation from 30MHz to 18GHz then 90dB attenuation up to 40GHz (Standard) 100dB from 14KHz to 40GHz (Extended)
Peak Surge Current	: 80kA (8/20µs)

## Ordering Information: Standard Performance

Model Number	Part Number	Rated Current @50°C (A)	Maximum Leakage Current (A)	Min. Weight (Kgs)
TMF913-4-6	E108562-1	6	1.5	20
TMF913-4-16	E108563-1	16	1.5	20
TMF913-4-32	E108564-1	32	1.5	30
TMF913-4-63	E108565-1	63	1.5	55
TMF913-4-100	E108566-1	100	5	80
TMF913-4-150	E108567-1	150	5	130
TMF913-4-200	E108568-1	200	5	130
TMF913-4-250	E111876-1	250	6	170
TMF913-4-300	E108569-1	300	6	225
TMF913-4-400	E108570-1	400	8	225
TMF913-4-500	E108571-1	500	10	300
TMF913-4-600	E108572-1	600	10	300
TMF913-4-700	E108573-1	700	10	350
TMF913-4-800	E108574-1	800	10	350
TMF913-4-1000	E108576-1	1000	12	450
TMF913-4-1200	E108577-1	1200	12	450
TMF913-4-1500	E108578-1	1500	12	550
TMF913-4-2000	E108579-1	2000	16	600
TMF913-4-2500	E108580-1	2500	16	650
TMF913-4-3000	E108581-1	3000	16	800

**Note:** EXXXXXX - Y

- Y - Indicates Enclosure Paint Color  
1 - Olive Green RAL 6003  
2 - Light Grey RAL 7035  
3 - Dark Grey RAL 7046

## Ordering Information: Extended Performance

Model Number	Part Number	Rated Current @50°C (A)	Maximum Leakage Current (A)	Min. Weight (Kgs)
TMF913N-4-6	E111877-1	6	3	35
TMF913N-4-16	E111878-1	16	3	35
TMF913N-4-32	E111879-1	32	5	50
TMF913N-4-63	E111880-1	63	5	65
TMF913N-4-100	E111881-1	100	7	120
TMF913N-4-150	E111882-1	150	7	160
TMF913N-4-200	E111883-1	200	8	160
TMF913N-4-250	E111884-1	250	8	180
TMF913N-4-300	E111885-1	300	10	330
TMF913N-4-400	E111886-1	400	10	330
TMF913N-4-500	E111887-1	500	10	330
TMF913N-4-600	E111888-1	600	15	380
TMF913N-4-700	E111889-1	700	15	380
TMF913N-4-800	E111890-1	800	15	430
TMF913N-4-1000	E111891-1	1000	15	430
TMF913N-4-1200	E111892-1	1200	15	580
TMF913N-4-1500	E111893-1	1500	20	580
TMF913N-4-2000	E111894-1	2000	20	680
TMF913N-4-2500	E111895-1	2500	20	680
TMF913N-4-3000	E111896-1	3000	20	830

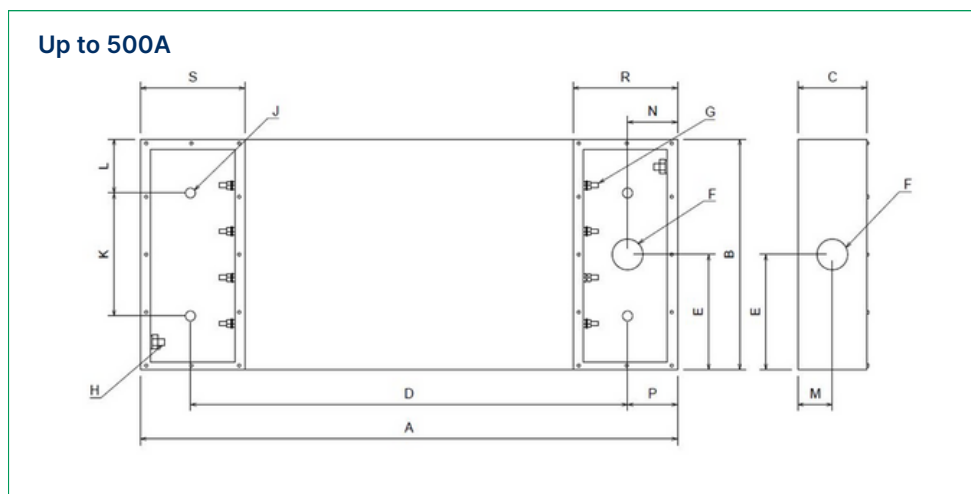
**Note:** EXXXXXX - Y

- Y - Indicates Enclosure Paint Color  
 1 - Olive Green RAL 6003  
 2 - Light Grey RAL 7035  
 3 - Dark Grey RAL 7046

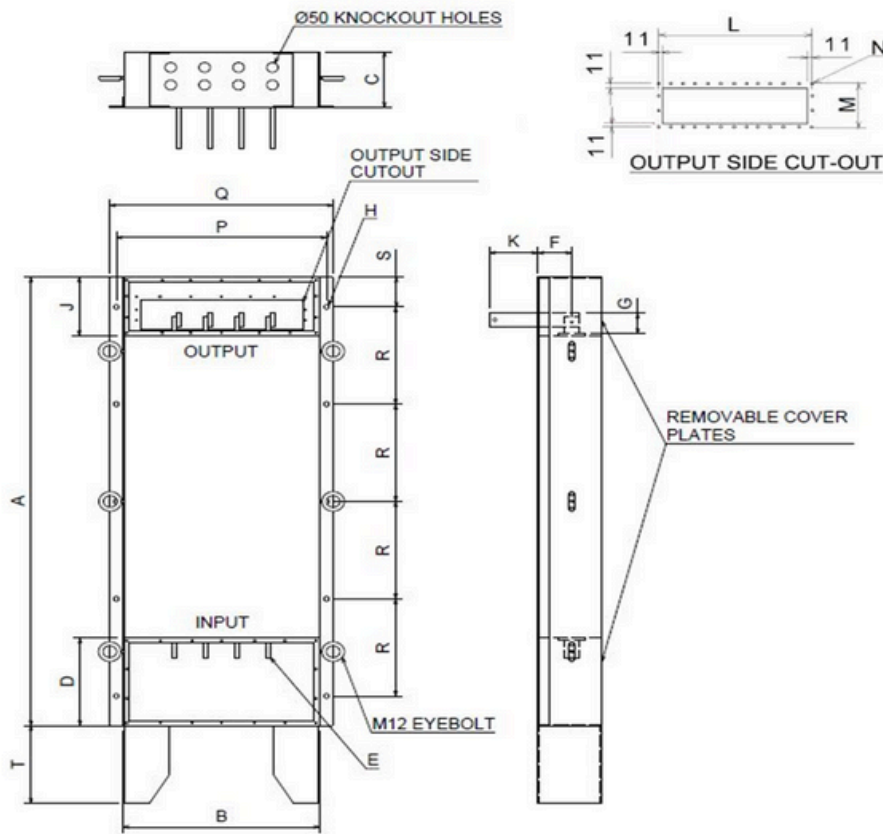
**Note:**

1. Earth Leakage Current is measured at 250VAC, 50Hz
2. This Filter series have very high leakage current to the ground, it is recommended to use Earth Leakage Circuit Breaker (ELCB) or Residual Circuit Breaker (RCCB) at the load side of filter
3. Different Enclosure Paint Colors are provided on request

## Mechanical Drawing :



## 600A to 3000A



### Mechanical Dimensions :

### Standard Performance (Up to 500A)

Model number	A	B	C	D	E	ØF	G	H	ØJ	K	L	M	N	P	R	S
<b>TMF913-4-6</b>	420	400	120	340	200	20	M5	M6	9	310	45	60	40	40	80	140
<b>TMF913-4-16</b>	420	400	120	340	200	20	M5	M6	9	310	45	60	40	40	80	140
<b>TMF913-4-32</b>	500	500	120	410	250	25	M8	M10	9	390	55	60	45	45	100	160
<b>TMF913-4-63</b>	620	640	170	530	320	32	M8	M10	11	530	55	85	45	45	100	160
<b>TMF913-4-100</b>	740	700	230	630	350	32	M8	M10	11	590	55	115	55	55	120	160
<b>TMF913-4-150</b>	860	900	250	710	450	50	M12	M16	17	750	75	125	75	75	150	200
<b>TMF913-4-200</b>	860	900	250	710	450	50	M12	M16	17	750	75	125	75	75	150	200
<b>TMF913-4-250</b>	1220	900	220	1020	450	50	M16	M20	17	750	75	110	100	100	235	235
<b>TMF913-4-300</b>	1600	960	250	1140	480	75	M20	M20	17	600	180	125	85	230	300	300
<b>TMF913-4-400</b>	1600	960	250	1140	480	75	M20	M20	17	600	180	125	85	230	300	300
<b>TMF913-4-500</b>	1600	960	250	1140	480	75	M20	M20	17	600	180	125	85	230	300	300

## Extended Performance (Up to 500A)

Model number	A	B	C	D	E	ØF	G	H	ØJ	K	L	M	N	P	R	S
TMF913N-4-6	600	400	120	520	200	20	M5	M6	9	110	45	60	40	40	80	140
TMF913N-4-16	600	400	120	520	200	20	M5	M6	9	110	45	60	40	40	80	140
TMF913N-4-32	780	500	120	690	250	25	M8	M10	9	140	55	60	45	45	100	160
TMF913N-4-63	950	640	170	860	320	32	M8	M10	11	210	55	85	45	45	100	160
TMF913N-4-100	1100	700	230	990	350	32	M8	M10	11	240	55	115	55	55	120	160
TMF913N-4-150	1220	900	250	1070	450	50	M12	M16	17	300	75	125	75	75	150	200
TMF913N-4-200	1220	900	250	1070	450	50	M12	M16	17	300	75	125	75	75	150	200
TMF913N-4-250	1500	900	250	1300	225	50	M12	M16	17	300	75	125	100	100	250	250
TMF913N-4-300	1900	960	250	1440	480	75	M20	M20	17	340	70	125	230	100	300	300
TMF913N-4-400	1900	960	250	1440	480	75	M20	M20	17	340	70	125	230	100	300	300
TMF913N-4-500	1900	960	250	1440	480	75	M20	M20	17	340	70	125	230	100	300	300

## Standard Performance (600A to 3000A)

Model Number	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
TMF913-4-600	1700	865	285	450	50x8	180	125	14	400	250	12X60=720	3X50=150	11	550	610	350	150	350
TMF913-4-700	1700	865	285	450	50x8	180	125	14	400	250	12X60=720	3X50=150	11	930	994	350	150	350
TMF913-4-800	1900	1000	300	500	80x10	185	200	14	450	250	15x61=915	3x60=180	11	930	994	400	150	350
TMF913-4-1000	1900	1000	300	500	80x10	185	200	14	450	250	15x61=915	3x60=180	11	1085	1170	400	150	350
TMF913-4-1200	2300	1000	300	600	125X10	212	200	14	500	300	15x61=915	3x60=180	11	1085	1170	400	150	350
TMF913-4-1500	2500	1000	300	600	125X10	212	200	14	500	300	15x61=915	3x60=180	11	1085	1170	400	150	350
TMF913-4-2000	3500	1000	350	700	127X16	212	200	14	600	300	15X61=915	4X57.5=230	11	1085	1170	775	200	500
TMF913-4-2500	3500	1000	350	700	127X16	212	200	14	600	300	15X61=915	4X57.5=230	11	1085	1170	775	200	500
TMF913-4-3000	4000	1000	350	800	130x20	212	200	14	700	300	15X61=915	4X57.5=230	11	1085	1170	900	200	500

## Extended Performance (600A to 3000A)

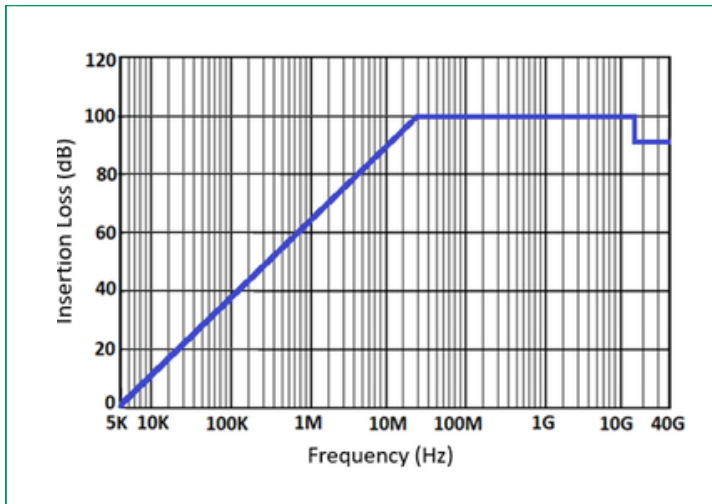
Model Number	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T
TMF913N-4-600	1900	865	285	450	50x8	180	125	14	400	250	12X60=720	3X50=150	11	925	990	400	150	350
TMF913N-4-700	1900	865	285	450	50x8	180	125	14	400	250	12X60=720	3X50=150	11	925	990	400	150	350
TMF913N-4-800	2100	1000	300	500	80x10	185	200	14	450	250	15x61=915	3x60=180	11	1060	1120	450	150	350
TMF913N-4-1000	2100	1000	300	500	80x10	185	200	14	450	250	15x61=915	3x60=180	11	1060	1120	450	150	350
TMF913N-4-1200	2500	1000	300	600	125X10	212	200	14	500	300	15x61=915	3x60=180	11	1060	1120	525	200	350
TMF913N-4-1500	2800	1000	300	600	125X10	212	200	14	500	300	15x61=915	3x60=180	11	1060	1120	600	200	350
TMF913N-4-2000	3700	1000	350	700	127X16	212	200	14	600	300	15X61=915	4X57.5=230	11	1060	1120	800	250	500
TMF913N-4-2500	3700	1000	350	700	127X16	212	200	14	600	300	15X61=915	4X57.5=230	11	1060	1120	800	250	500
TMF913N-4-3000	4200	1000	350	800	130x20	212	200	14	700	300	15X61=915	4X65=260	11	1060	1120	900	300	500

All dimensions are in mm;

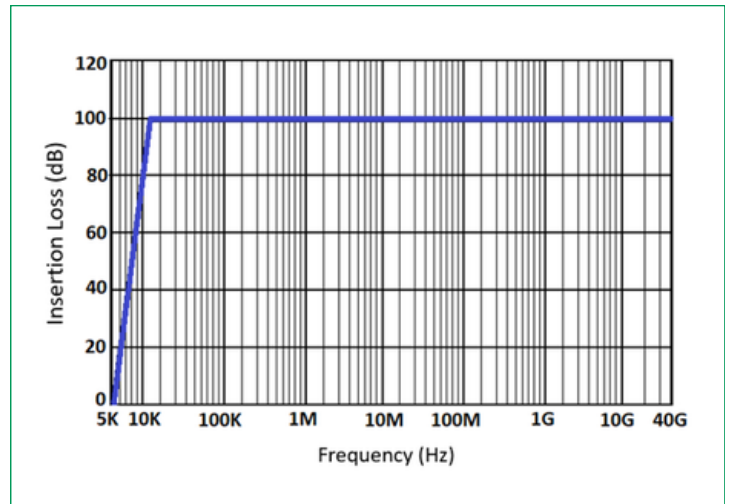
**Note:** The output threaded tube or Bulk-head Penetration Pipe along with accessories shall be supplied on request

## Insertion Loss Graph :

### Standard Performance

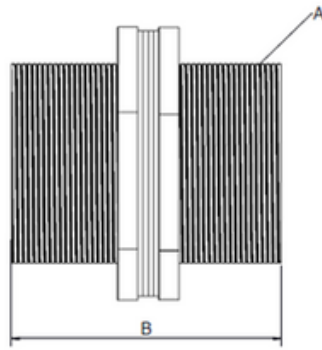


### Extended Performance



## Accessories Details :

### Bulk Head Penetration Kit

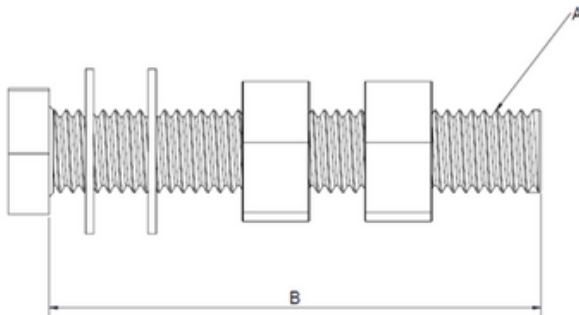


#### Accessories :

1. Threaded Pipe - 1 No
2. Plain Washer - 2 No's
3. Hex Nut - 2 No's
4. Gasket - 2 No's

SL No.	Part Number	Description	Thread(A) X Length(B)
1	E111914-1	BULKHEAD PENETRATION KIT FOR M20	M20X100
2	E111915-1	BULKHEAD PENETRATION KIT FOR M25	M25X100
3	E111916-1	BULKHEAD PENETRATION KIT FOR M32	M32X100
4	E111917-1	BULKHEAD PENETRATION KIT FOR M40	M40X100
5	E111918-1	BULKHEAD PENETRATION KIT FOR M50	M50X100
6	E111919-1	BULKHEAD PENETRATION KIT FOR M63	M63X100
7	E111920-1	BULKHEAD PENETRATION KIT FOR M75	M75X100

### Fixing Screw Kit



#### Accessories :

1. Bolt - 1 No
2. Plain Washer - 2 No's
3. Hex Nut - 2 No's

SL No.	Part Number	Description	Thread(A) X Length(B)
1	E111921-1	FIXING SCREW KIT FOR M5	M5X40
2	E111922-1	FIXING SCREW KIT FOR M6	M6X40
3	E111923-1	FIXING SCREW KIT FOR M8	M8X50
4	E111924-1	FIXING SCREW KIT FOR M10	M10X50
5	E111925-1	FIXING SCREW KIT FOR M12	M12X60
6	E111926-1	FIXING SCREW KIT FOR M16	M16X60
7	E111927-1	FIXING SCREW KIT FOR M20	M20X70

**Note:** The suggested Fasteners can be used with a mounting surface thickness up to 20mm