



DATASHEET

Three Phase Discrete Line HEMP Filter – TMF914

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

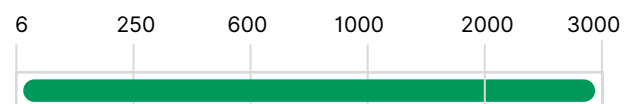
Applications:

- 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
Peak Surge Current	: 80kA (8/20µs)

Ordering Information: 3 Lines

Model Number	Part Number	Rated Current @50°C (A)	Maximum Leakage Current (A)	Min. Weight (Kgs)
TMF914-3-6	E108620-1	6	1.5	80
TMF914-3-10	E111509-1	10	1.5	80
TMF914-3-16	E108621-1	16	1.5	100
TMF914-3-20	E111510-1	20	1.5	100
TMF914-3-25	E111511-1	25	1.5	130
TMF914-3-30	E111512-1	30	1.5	130
TMF914-3-32	E108622-1	32	1.5	130
TMF914-3-40	E111513-1	40	3	130
TMF914-3-50	E111514-1	50	3	130
TMF914-3-60	E111515-1	60	3	130
TMF914-3-63	E108623-1	63	3	130
TMF914-3-100	E108624-1	100	5	150
TMF914-3-125	E111516-1	125	5	160
TMF914-3-150	E108625-1	150	5	160
TMF914-3-200	E108626-1	200	5	200
TMF914-3-225	E111517-1	225	6	230
TMF914-3-250	E111518-1	250	6	230
TMF914-3-300	E108627-1	300	6	230
TMF914-3-400	E108628-1	400	8	230
TMF914-3-500	E108629-1	500	10	390
TMF914-3-600	E108630-1	600	10	400
TMF914-3-700	E108631-1	700	10	450
TMF914-3-800	E108632-1	800	10	480
TMF914-3-1000	E108633-1	1000	12	480

Model Number	Part Number	Rated Current @50°C (A)	Maximum Leakage Current (A)	Min. Weight (Kgs)
TMF914-3-1200	E108634-1	1200	12	530
TMF914-3-1500	E108635-1	1500	12	580
TMF914-3-1600	E111519-1	1600	12	580
TMF914-3-2000	E108636-1	2000	16	630
TMF914-3-2500	E108637-1	2500	16	710
TMF914-3-3000	E108638-1	3000	16	880

Note: EXXXXXX - Y

Y - Indicates Enclosure Paint Color

1 - Olive Green RAL 6003

2 - Light Grey RAL 7035

3 - Dark Grey RAL 7046

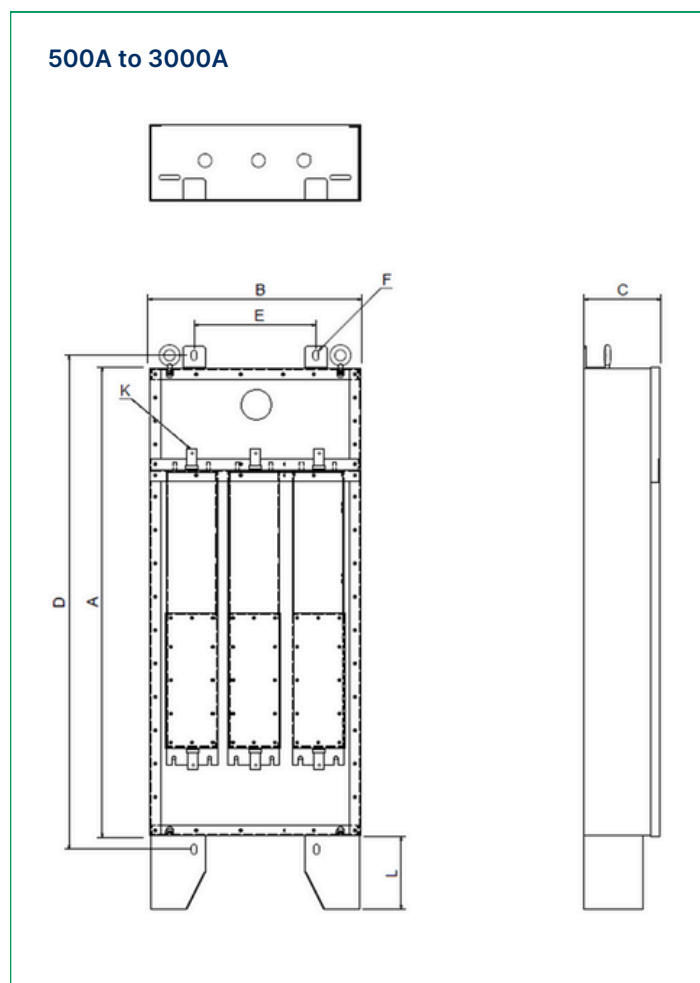
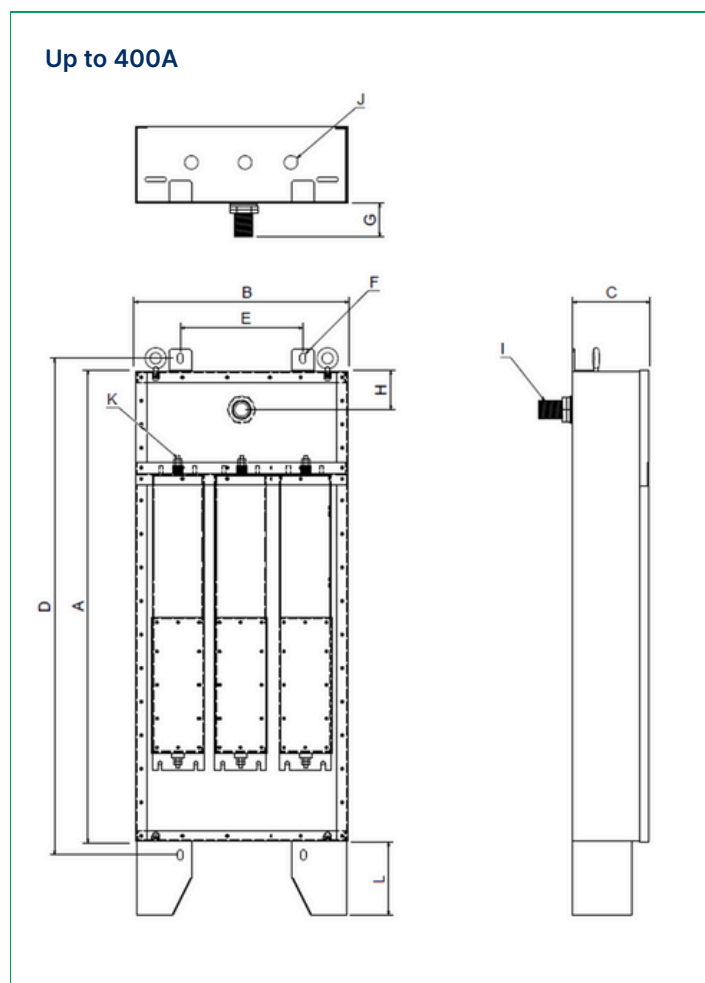
Note:

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 :



Mechanical Dimensions :

Up to 400A

Model Number	A	B	C	D	E	ØF	G	H	I	J	K	L
TMF914-3-6	1050	550	160	1100	440	Ø13X28	120	80	M32	30	M6	200
TMF914-3-10	1050	550	160	1100	440	Ø13X28	120	80	M32	30	M6	200
TMF914-3-16	1150	550	160	1200	440	Ø13X28	120	80	M44	30	M8	200
TMF914-3-20	1150	550	160	1200	440	Ø13x28	120	80	M44	30	M8	200
TMF914-3-25	1150	550	160	1200	440	Ø13x28	120	80	M44	30	M8	200
TMF914-3-30	1150	550	160	1200	440	Ø13x28	120	80	M44	30	M8	200
TMF914-3-32	1150	550	160	1200	440	Ø13x28	120	80	M44	30	M8	200
TMF914-3-40	1300	550	160	1350	440	Ø13x28	120	80	M44	30	M8	250
TMF914-3-50	1300	550	160	1350	440	Ø13x28	120	80	M44	30	M8	250
TMF914-3-60	1300	550	160	1350	440	Ø13x28	120	80	M44	30	M8	250
TMF914-3-63	1300	550	160	1350	440	Ø13x28	120	80	M44	30	M8	250
TMF914-3-100	1500	600	190	1560	480	Ø18x35	150	100	M80	50	M10	300
TMF914-3-125	1500	600	190	1560	480	Ø18x35	150	100	M80	50	M10	300
TMF914-3-150	1500	600	190	1560	480	Ø18x35	150	100	M80	50	M10	300
TMF914-3-200	1750	750	210	1810	600	Ø18x35	150	140	M150	60	M12	350
TMF914-3-225	1750	750	210	1810	600	Ø18x35	150	140	M150	60	M12	350
TMF914-3-250	1750	750	210	1810	600	Ø18x35	150	140	M150	60	M12	350
TMF914-3-300	2000	870	250	2070	700	Ø22x40	150	140	M150	100	M18	400
TMF914-3-400	2000	870	250	2070	700	Ø22x40	150	140	M150	100	M18	400

500A to 3000A

Current Rating (A)	A	B	C	D	E	ØF	K	L
TMF914-3-500	2350	1300	310	2430	1000	Ø22x50	50x8	400
TMF914-3-600	2350	1300	310	2430	1000	Ø22x50	50x8	400
TMF914-3-700	2350	1300	310	2430	1000	Ø22x50	50x8	400
TMF914-3-800	2550	1450	390	2630	1200	Ø22x50	50x8	400
TMF914-3-1000	2550	1450	390	2630	1200	Ø22x50	60x10	400
TMF914-3-1200	2550	1450	390	2630	1200	Ø22x50	80x10	400
TMF914-3-1500	3000	1450	390	3120	1200	Ø22x50	125x10	400
TMF914-3-1600	3000	1450	390	3120	1200	Ø22x50	125x10	400
TMF914-3-2000	3000	1450	390	3120	1200	Ø22x50	125x16	400
TMF914-3-2500	3500	1600	430	3620	1200	Ø22x50	127x16	450
TMF914-3-3000	3700	1600	430	3820	1200	Ø22x50	130x20	450

All dimensions are in mm;

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

Ordering Information: 4 Lines

Model Number	Part Number	Rated Current @50 °C (A)	Maximum Leakage Current (A)	Min. Weight (Kgs)
TMF914-4-6	E108639-1	6	1.5	100
TMF914-4-10	E111520-1	10	1.5	100
TMF914-4-16	E108640-1	16	1.5	120
TMF914-4-20	E111521-1	20	1.5	120
TMF914-4-25	E111522-1	25	1.5	160
TMF914-4-30	E111523-1	30	1.5	160
TMF914-4-32	E108641-1	32	1.5	160
TMF914-4-40	E111524-1	40	3	160
TMF914-4-50	E111525-1	50	3	160
TMF914-4-60	E111526-1	60	3	160
TMF914-4-63	E108642-1	63	3	160
TMF914-4-100	E108643-1	100	5	180
TMF914-4-125	E111527-1	125	5	200
TMF914-4-150	E108644-1	150	5	200
TMF914-4-200	E108645-1	200	5	240
TMF914-4-225	E111528-1	225	6	260
TMF914-4-250	E111529-1	250	6	260
TMF914-4-300	E108646-1	300	6	280
TMF914-4-400	E108647-1	400	8	280
TMF914-4-500	E108648-1	500	10	480
TMF914-4-600	E108649-1	600	10	500
TMF914-4-700	E108650-1	700	10	560
TMF914-4-800	E108651-1	800	10	600
TMF914-4-1000	E108652-1	1000	12	600
TMF914-4-1200	E108653-1	1200	12	660
TMF914-4-1500	E108654-1	1500	12	720
TMF914-4-1600	E111530-1	1600	12	730
TMF914-4-2000	E108655-1	2000	16	780
TMF914-4-2500	E108656-1	2500	16	880
TMF914-4-3000	E108657-1	3000	16	1100

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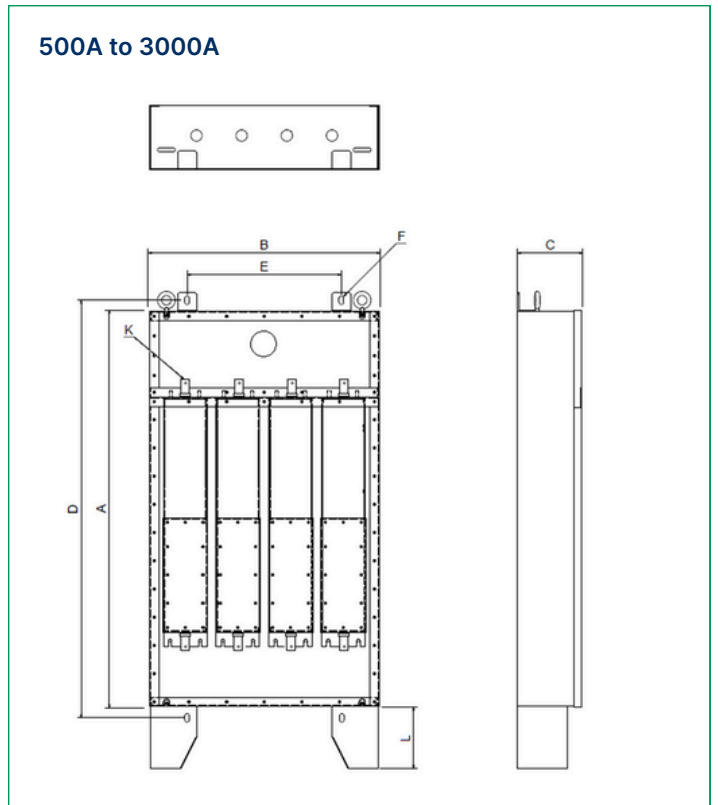
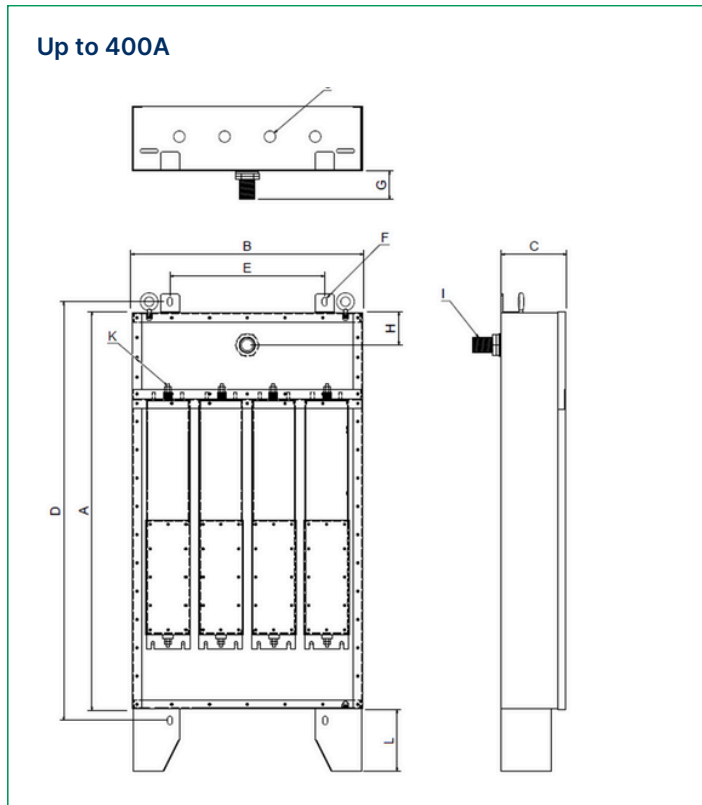
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Mechanical Drawing :



Mechanical Dimensions :

Up to 400A

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TMF914-4-6	1050	700	160	1100	500	Ø13X28	120	80	M32	30	M6	200
TMF914-4-10	1050	700	160	1100	500	Ø13X28	120	80	M32	30	M6	200
TMF914-4-16	1150	700	160	1200	500	Ø13X28	120	80	M44	30	M8	200
TMF914-4-20	1150	700	160	1200	500	Ø13x28	120	80	M44	30	M8	200
TMF914-4-25	1150	700	160	1200	500	Ø13x28	120	80	M44	30	M8	200
TMF914-4-30	1150	700	160	1200	500	Ø13x28	120	80	M44	30	M8	200
TMF914-4-32	1150	700	160	1200	500	Ø13x28	120	80	M44	30	M8	200
TMF914-4-40	1300	700	160	1350	500	Ø13x28	120	80	M44	30	M8	250
TMF914-4-50	1300	700	160	1350	500	Ø13x28	120	80	M44	30	M8	250
TMF914-4-60	1300	700	160	1350	500	Ø13x28	120	80	M44	30	M8	250
TMF914-4-63	1300	700	160	1350	500	Ø13x28	120	80	M44	30	M8	250
TMF914-4-100	1500	850	190	1560	700	Ø18x35	150	100	M80	50	M10	300
TMF914-4-125	1500	850	190	1560	700	Ø18x35	150	100	M80	50	M10	300
TMF914-4-150	1500	850	190	1560	700	Ø18x35	150	100	M80	50	M10	300
TMF914-4-200	1750	1050	210	1810	800	Ø18x35	150	140	M150	60	M12	350
TMF914-4-225	1750	1050	210	1810	800	Ø18x35	150	140	M150	60	M12	350
TMF914-4-250	1750	1050	210	1810	800	Ø18x35	150	140	M150	60	M12	350
TMF914-4-300	2000	1200	250	2070	1000	Ø22x40	150	140	M150	100	M18	400
TMF914-4-400	2000	1200	250	2070	1000	Ø22x40	150	140	M150	100	M18	400

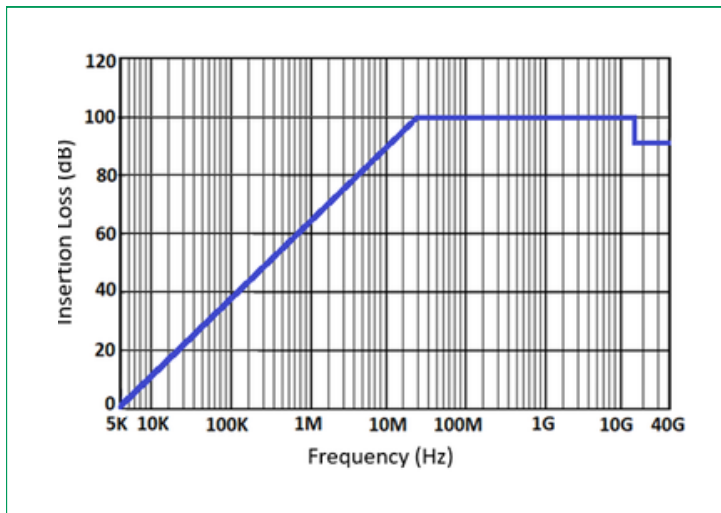
500A to 3000A

Model Number	A	B	C	D	E	ØF	K	L
TMF914-4-500	2350	1700	310	2430	1200	Ø22x50	50x8	400
TMF914-4-600	2350	1700	310	2430	1200	Ø22x50	50x8	400
TMF914-4-700	2350	1450	310	2430	1200	Ø22x50	50x8	400
TMF914-4-800	2550	1950	390	2630	1600	Ø22x50	50x8	400
TMF914-4-1000	2550	1950	390	2630	1600	Ø22x50	60x10	400
TMF914-4-1200	2550	1950	390	2630	1600	Ø22x50	80x10	400
TMF914-4-1500	3000	1950	390	3120	1600	Ø22x50	125x10	400
TMF914-4-1600	3000	1950	390	3120	1600	Ø22x50	125x10	400
TMF914-4-2000	3000	1950	390	3120	1600	Ø22x50	125x16	400
TMF914-4-2500	3500	2150	430	3620	1800	Ø22x50	127x16	450
TMF914-4-3000	3700	2150	430	3820	1800	Ø22x50	130x20	450

All dimensions are in mm;

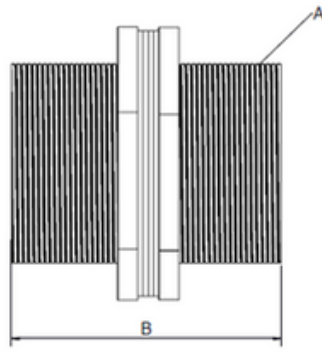
Note: The output threaded tube or Bulk-head Penetration Pipe along with accessories shall be supplied on request

Insertion Loss Graph :



Accessories Details :

Bulk Head Penetration Kit

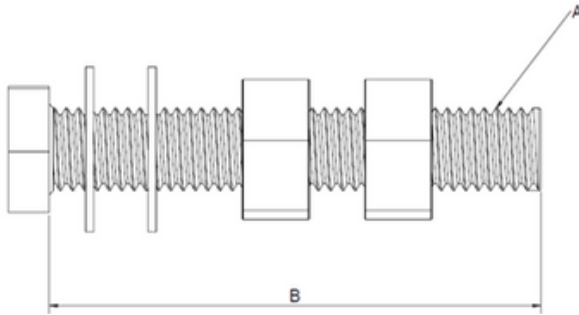


Accessories :

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