

Approvals & Compliances



Features:

- Rated Current up to 36A
- Filters offer an optimized filter range for high performance AC & DC applications.
- High Conducted attenuation performance
- Various options like Standard ,Medical versions with different Terminals.
- Designed for easy and Quick Chassis mounting.
- Surge Option is available.

Applications:

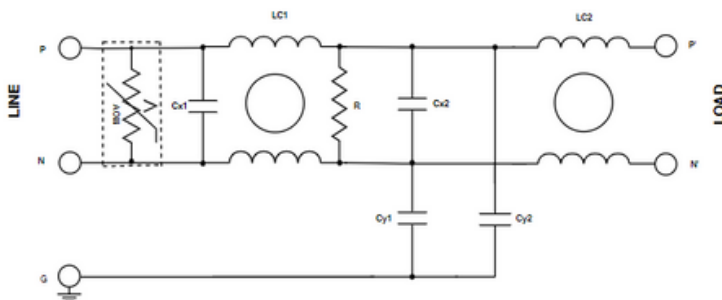
- UPS/Inverters.
- Industrial Applications
- Frequency Convertors
- Medical Equipment
- Industrial Application
- Automotive Application
- Weighting Machines
- Printing Machinery

DATASHEET

SINGLE PHASE EMI FILTER - SMF2232

These series of filters designed for motor and power drive systems which can provide superior attenuation performance and suppress conducted noise even when high interference level are present

Type Circuit Diagram:

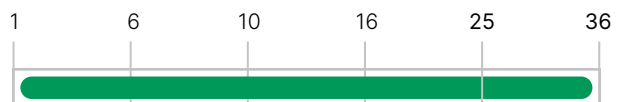


Surge option available for Standard ,Medical,Safety and Enhanced Version.

Performance Indicator:

Standard	High	Very High

Rated Current (A):



Technical Specifications:

Maximum Continuous Operating Voltage	: 250 VAC, 50/60Hz (UL Approval) 250VDC
Operating Frequency	: DC to 400Hz
Current ratings	: 1A to 36A @40°C
High Potential test voltage	: P to N 1075 VDC for 2 Sec(Except P Type) P to G 2250VDC for 2 Sec P to G 1500VAC for 2 Sec (M Types)
Overload Capability	: 4x rated current at switch on, 1.5 x rated current for 1 minute, once per hour
Design Corresponding to	: UL 60939-3 and IEC 60939-1&2
Flammability corresponding to	: UL 94 V-0 or better
Temperature range	: -25°C to +100°C
Climatic Category	: 25/100/21
Protection category	: IP20

Ordering Information

Standard Version										
Model Number	Part Number	Model Number	Part Number	Current Rating @40°C(A)	Leakage Current @250 VAC/50Hz (mA)	Power loss @25°C / 50Hz (W)	Termination			Min.Weight (g)
										
SMF2232-1-4	E108192-1	SMF2232P-1-4	E115175-1	1	0.37	2.5	-4	-	-	200
SMF2232-1-5	E108192-2	SMF2232P-1-5	E115176-1	1	0.37	2.5	-	-5	-	200
SMF2232-3-4	E108193-1	SMF2232P-3-4	E115177-1	3	0.37	2.5	-4	-	-	250
SMF2232-3-5	E108193-2	SMF2232P-3-5	E115178-1	3	0.37	2.5	-	-5	-	250
SMF2232-6-4	E108194-1	SMF2232P-6-4	E115179-1	6	0.37	3.5	-4	-	-	450
SMF2232-6-5	E108194-2	SMF2232P-6-5	E115180-1	6	0.37	3.5	-	-5	-	450
SMF2232-10-4	E108195-1	SMF2232P-10-4	E115181-1	10	0.37	9.5	-4	-	-	700
SMF2232-10-5	E108195-2	SMF2232P-10-5	E115182-1	10	0.37	9.5	-	-5	-	700
SMF2232-10-1	E108195-3	SMF2232P-10-1	E115183-1	10	0.37	9.5	-	-	-1	700
SMF2232-12-4	E108196-1	SMF2232P-12-4	E115184-1	12	0.37	13.5	-4	-	-	700
SMF2232-12-5	E108196-2	SMF2232P-12-5	E115185-1	12	0.37	13.5	-	-5		700
SMF2232-12-1	E108196-3	SMF2232P-12-1	E115186-1	12	0.37	13.5	-	-	-1	700
SMF2232-16-4	E108197-1	SMF2232P-16-4	E115187-1	16	0.37	10	-4	-	-	1000
SMF2232-16-5	E108197-2	SMF2232P-16-5	E115188-1	16	0.37	10	-	-5	-	1000
SMF2232-16-1	E108197-3	SMF2232P-16-1	E115189-1	16	0.37	10	-	-	-1	1000
SMF2232-16S-1	E111153-1	SMF2232P-16S-1	E115290-1	16	0.37	5	-	-	-1	1000
SMF2232-25-1	E108198-1	SMF2232P-25-1	E115190-1	25	0.37	12	-	-	-1	1000
SMF2232-36-1	E108199-1	SMF2232P-36-1	E115191-1	36	0.37	13.5	-	-	-1	1000

Safety Version

Model Number	Part Number	Model Number	Part Number	Current Rating @40°C(A)	Leakage Current @250 VAC/50Hz (mA)	Power loss @25°C / 50Hz (W)	Termination			Min.Weight (g)
										
SMF2232S-1-4	E108200-1	SMF2232SP-1-4	E115192-1	1	0.05	2.5	-4	-	-	200
SMF2232S-1-5	E108200-2	SMF2232SP-1-5	E115193-1	1	0.05	2.5	-	-5	-	200
SMF2232S-3-4	E108231-1	SMF2232SP-3-4	E115194-1	3	0.05	2.5	-4	-	-	250
SMF2232S-3-5	E108231-2	SMF2232SP-3-5	E115195-1	3	0.05	2.5	-	-5	-	250
SMF2232S-6-4	E108232-1	SMF2232SP-6-4	E115196-1	6	0.05	3.5	-4	-	-	450
SMF2232S-6-5	E108232-2	SMF2232SP-6-5	E115197-1	6	0.05	3.5	-	-5	-	450
SMF2232S-10-4	E108233-1	SMF2232SP-10-4	E115198-1	10	0.05	9.5	-4	-	-	700
SMF2232S-10-5	E108233-2	SMF2232SP-10-5	E115199-1	10	0.05	9.5	-	-5	-	700
SMF2232S-10-1	E108233-3	SMF2232SP-10-1	E115200-1	10	0.05	9.5	-	-	-1	700
SMF2232S-12-4	E108234-1	SMF2232SP-12-4	E115201-1	12	0.05	13.5	-4	-	-	700
SMF2232S-12-5	E108234-2	SMF2232SP-12-5	E115202-1	12	0.05	13.5	-	-5	-	700
SMF2232S-12-1	E108234-3	SMF2232SP-12-1	E115203-1	12	0.05	13.5	-	-	-1	700
SMF2232S-16-4	E108235-1	SMF2232SP-16-4	E115204-1	16	0.05	10	-4	-	-	1000
SMF2232S-16-5	E108235-2	SMF2232SP-16-5	E115205-1	16	0.05	10	-	-5	-	1000
SMF2232S-16-1	E108235-3	SMF2232SP-16-1	E115206-1	16	0.05	10	-	-	-1	1000
SMF2232S-25-1	E108236-1	SMF2232SP-25-1	E115207-1	25	0.05	12	-	-	-1	1000
SMF2232S-36-1	E108237-1	SMF2232SP-36-1	E115208-1	36	0.05	13.5	-	-	-1	1000

Medical Version

Model Number	Part Number	Model Number	Part Number	Current Rating @40°C(A)	Leakage Current @250 VAC/50Hz (mA)	Power loss @25°C / 50Hz (W)	Termination			Min.Weight (g)
										
SMF2232M-1-4	E108238-1	SMF2232MP-1-4	E115209-1	1	0	2.5	-4	-	-	200
SMF2232M-1-5	E108238-2	SMF2232MP-1-5	E115210-1	1	0	2.5	-	-5	-	200
SMF2232M-3-4	E108239-1	SMF2232MP-3-4	E115211-1	3	0	2.5	-4	-	-	250
SMF2232M-3-5	E108239-2	SMF2232MP-3-5	E115212-1	3	0	2.5	-	-5	-	250
SMF2232M-6-4	E108240-1	SMF2232MP-6-4	E115213-1	6	0	3.5	-4	-	-	450
SMF2232M-6-5	E108240-2	SMF2232MP-6-5	E115214-1	6	0	3.5	-	-5	-	450
SMF2232M-10-4	E108241-1	SMF2232MP-10-4	E115215-1	10	0	9.5	-4	-	-	700
SMF2232M-10-5	E108241-2	SMF2232MP-10-5	E115216-1	10	0	9.5	-	-5	-	700
SMF2232M-10-1	E108241-3	SMF2232MP-10-1	E115217-1	10	0	9.5	-	-	-1	700
SMF2232M-12-4	E108242-1	SMF2232MP-12-4	E115218-1	12	0	13.5	-4	-	-	700
SMF2232M-12-5	E108242-2	SMF2232MP-12-5	E115219-1	12	0	13.5	-	-5	-	700
SMF2232M-12-1	E108242-3	SMF2232MP-12-1	E115220-1	12	0	13.5	-	-	-1	700
SMF2232M-16-4	E108243-1	SMF2232MP-16-4	E115221-1	16	0	10	-4	-	-	1000
SMF2232M-16-5	E108243-2	SMF2232MP-16-5	E115222-1	16	0	10	-	-5	-	1000
SMF2232M-16-1	E108243-3	SMF2232MP-16-1	E115223-1	16	0	10	-	-	-1	1000
SMF2232M-25-1	E108256-1	SMF2232MP-25-1	E115224-1	25	0	12	-	-	-1	1000
SMF2232M-36-1	E108257-1	SMF2232MP-36-1	E115225-1	36	0	13.5	-	-	-1	1000

Enhanced Version

Model Number	Part Number	Model Number	Part Number	Current Rating @40°C(A)	Leakage Current @250 VAC/50Hz (mA)	Power loss @25°C / 50Hz (W)	Termination		Min.Weight (g)
									
SMF2232N-1-4	E108258-1	SMF2232NP-1-4	E115226-1	1	3.69	2.5	-4	-	200
SMF2232N-3-4	E108259-1	SMF2232NP-3-4	E115227-1	3	3.69	2.5	-4	-	250
SMF2232N-6-4	E108260-1	SMF2232NP-6-4	E115228-1	6	3.69	3.5	-4	-	450
SMF2232N-10-4	E108261-1	SMF2232NP-10-4	E115229-1	10	3.69	9.5	-4	-	670
SMF2232N-10-1	E108261-2	SMF2232NP-10-1	E115230-1	10	3.69	9.5	-	-1	670
SMF2232N-12-4	E108262-1	SMF2232NP-12-4	E115231-1	12	3.69	13.5	-4	-	670
SMF2232N-12-1	E108262-2	SMF2232NP-12-1	E115232-1	12	3.69	13.5	-	-1	670
SMF2232N-16-4	E108263-1	SMF2232NP-16-4	E115233-1	16	3.69	10	-4	-	1000
SMF2232N-16-1	E108263-2	SMF2232NP-16-1	E115234-1	16	3.69	10	-	-1	1000
SMF2232N-25-1	E108264-1	SMF2232NP-25-1	E115235-1	25	3.69	12	-	-1	1000
SMF2232N-36-1	E108265-1	SMF2232NP-36-1	E115236-1	36	2.6	13.5	-	-1	1000

Note: Maximum leakage current is according to IEC 60939-3 under normal AC operating conditions. The worst leakage current could double the value if the neutral is interrupted.

For surge pulse protection, please add P (e.g. SMF2232P-10-04, SMF2232MP-20-4).

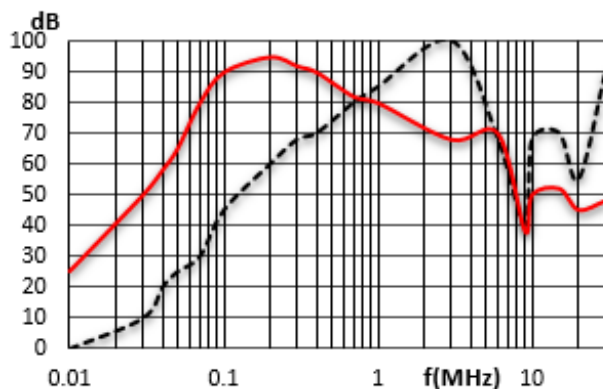
Insertion Loss :

..... Common mode _____ Differential Mode

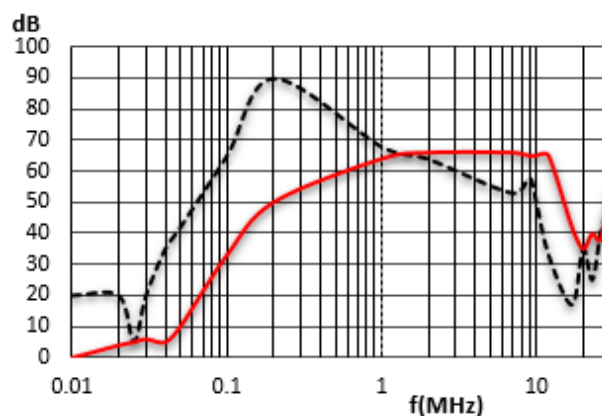
Per CISPR 17; C=50Ω/50Ω D=50Ω/50Ω

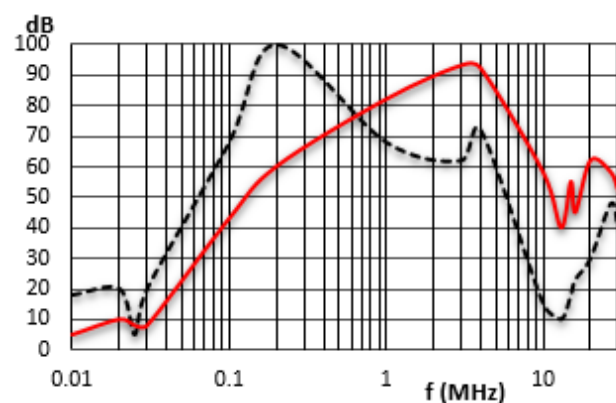
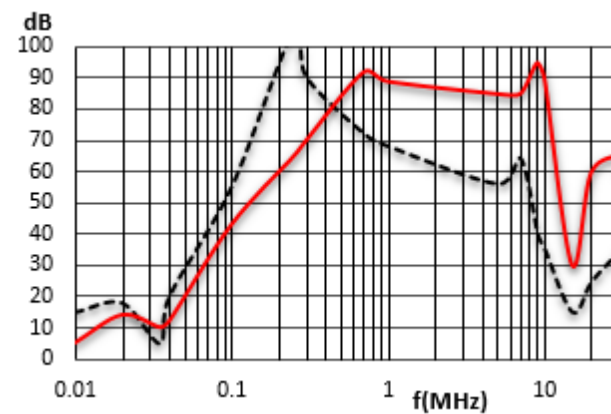
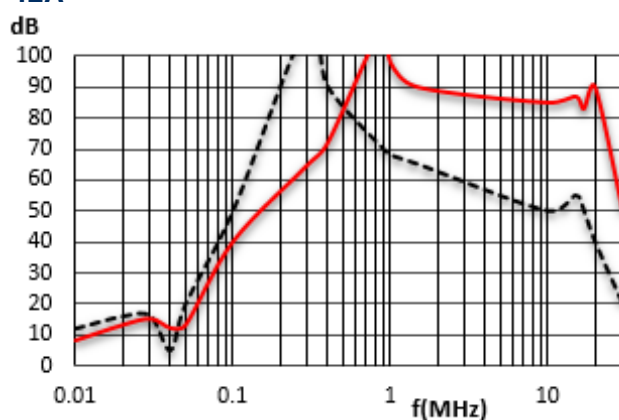
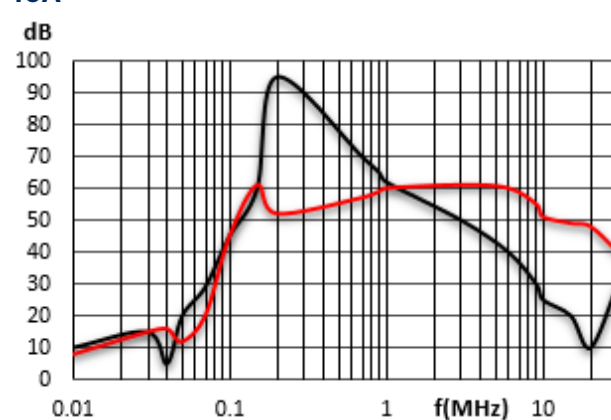
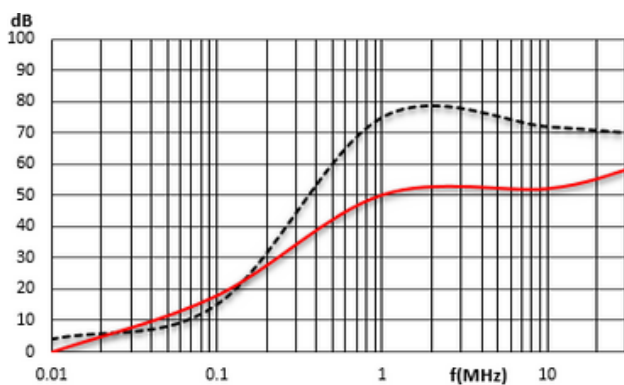
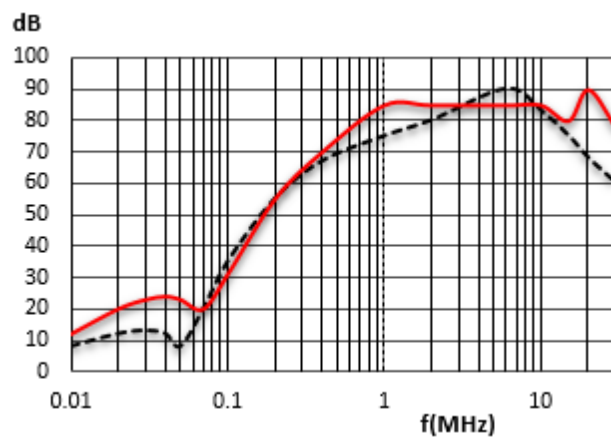
Standard Version

1A

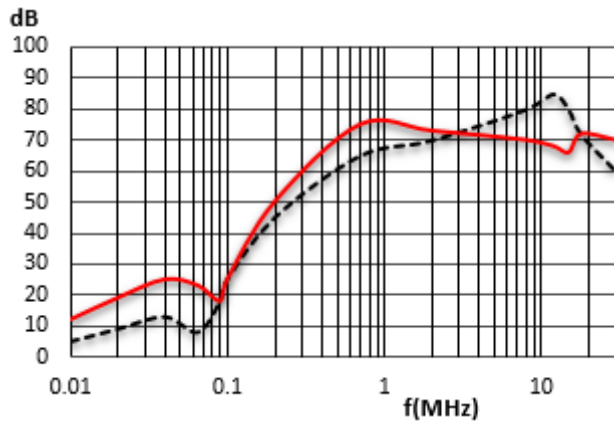


3A



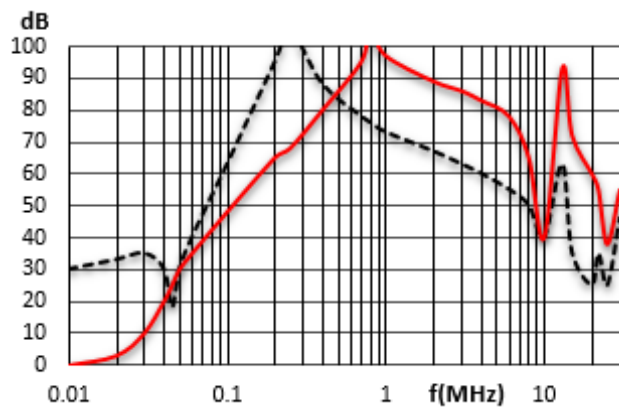
6A**10A****12A****16A****16A(SMF2232-16S-1)****25A**

36A

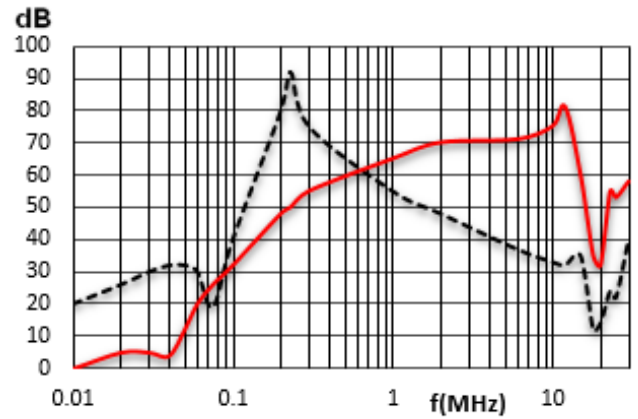


Safety Version

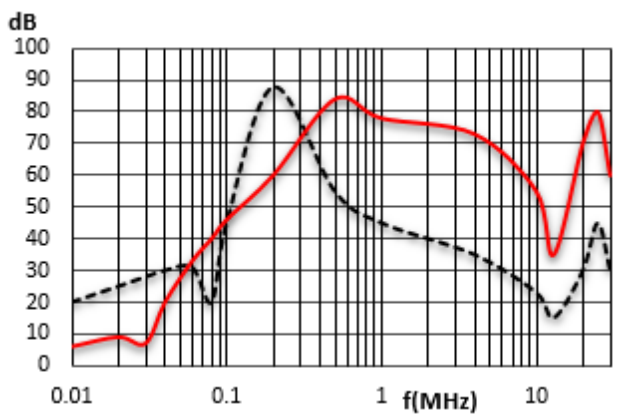
1A



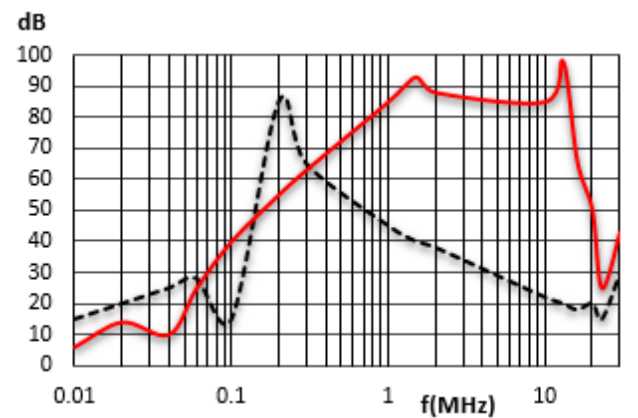
3A

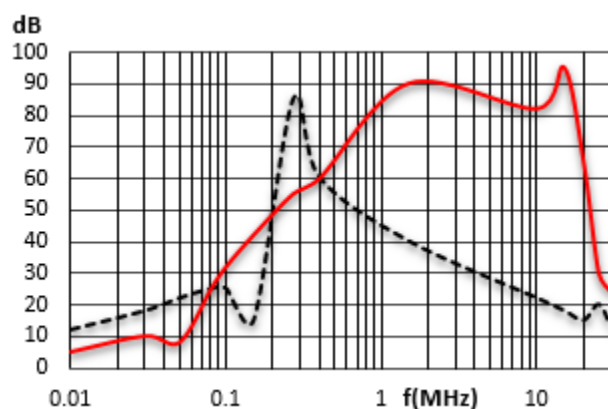
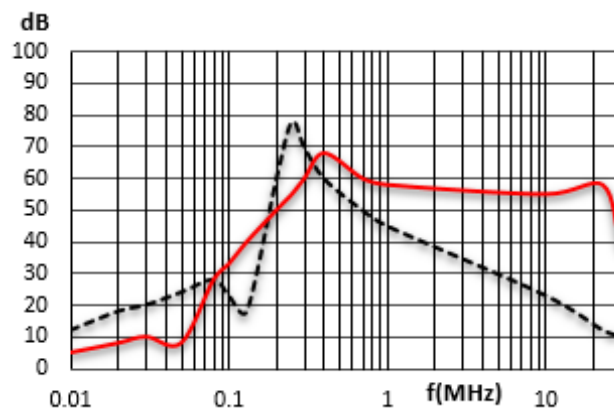
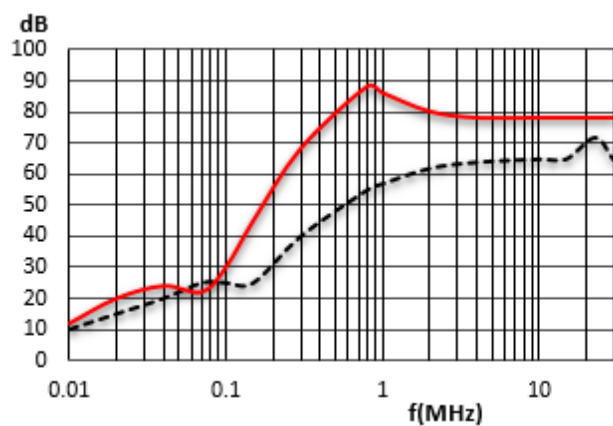
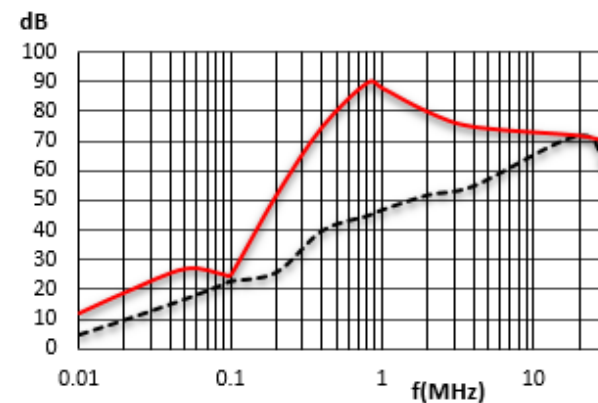


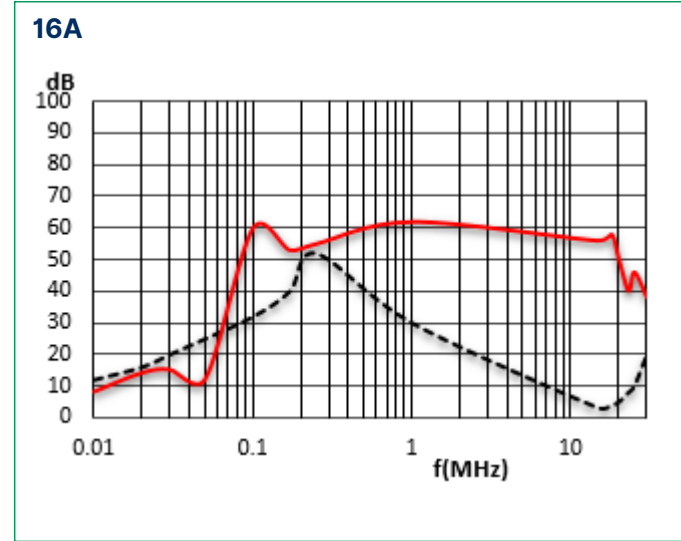
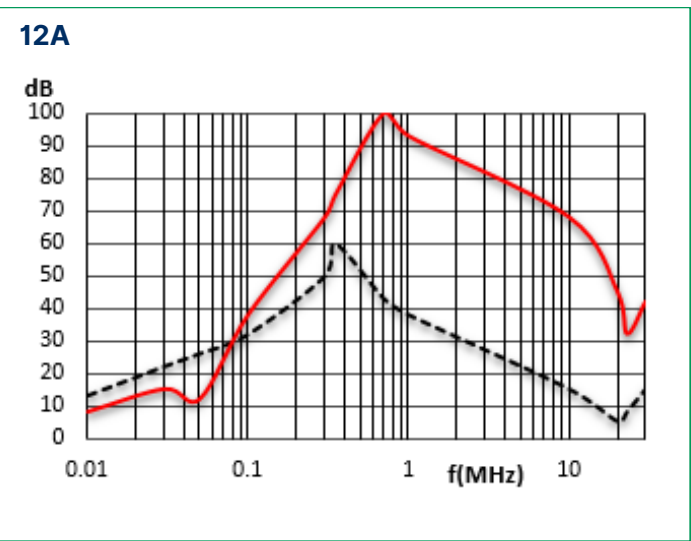
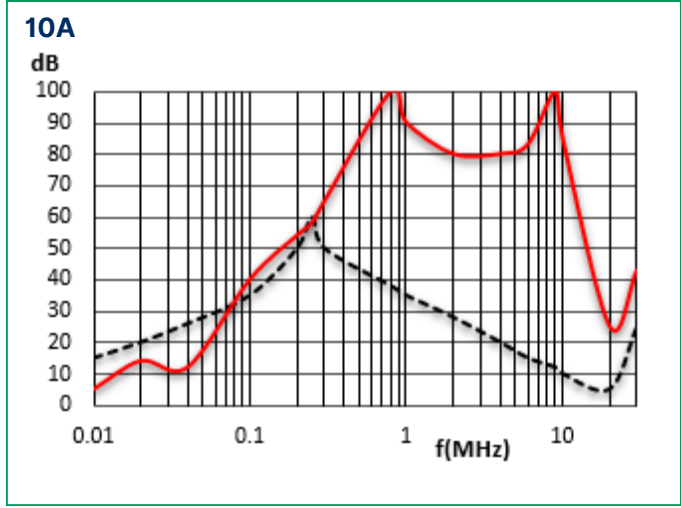
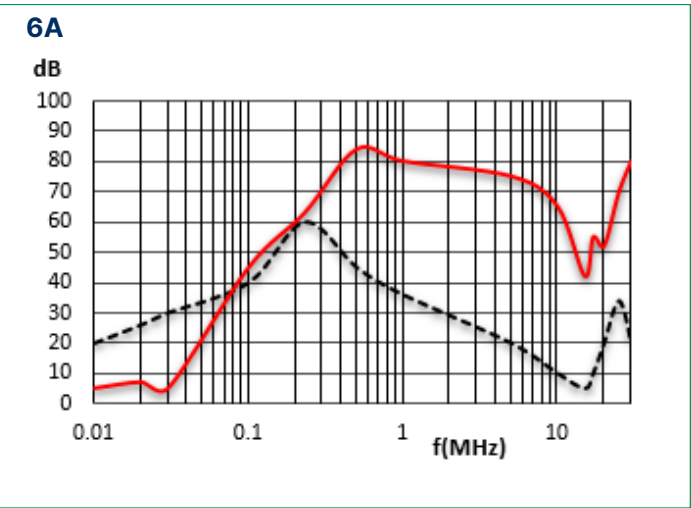
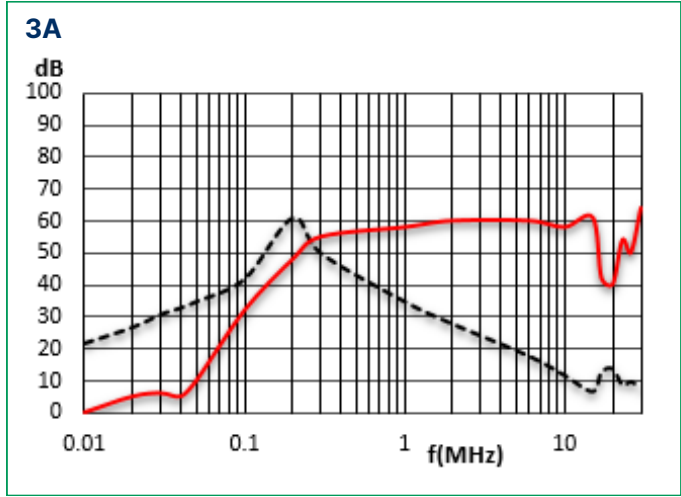
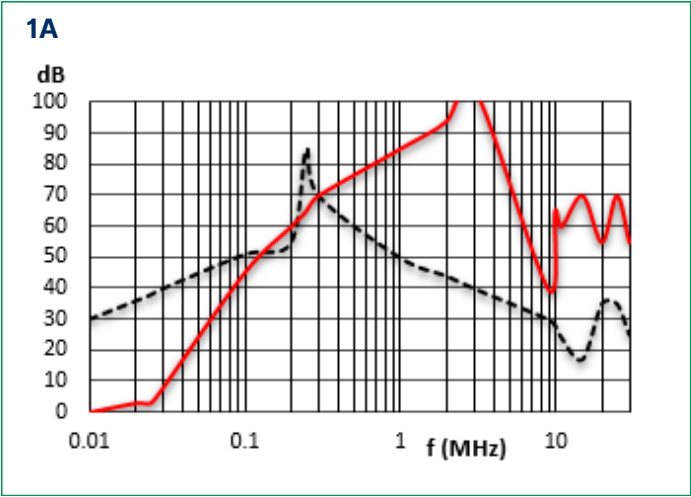
6A

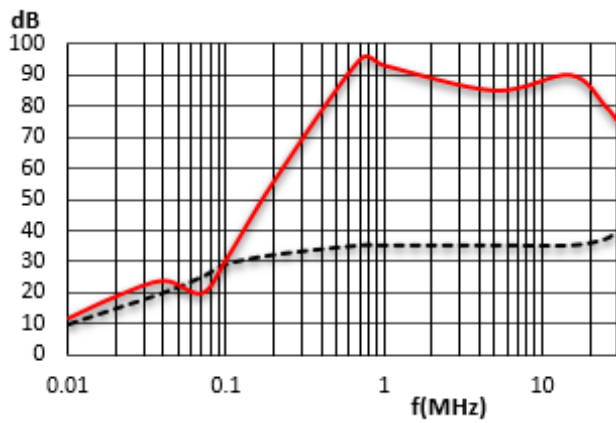
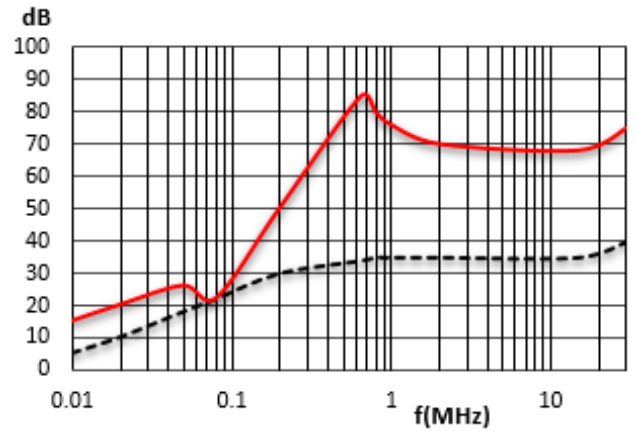
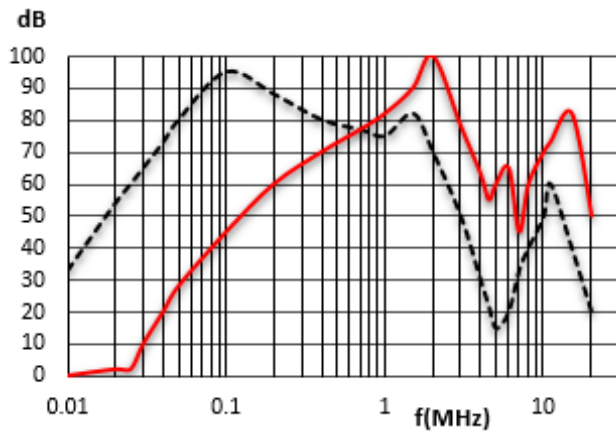
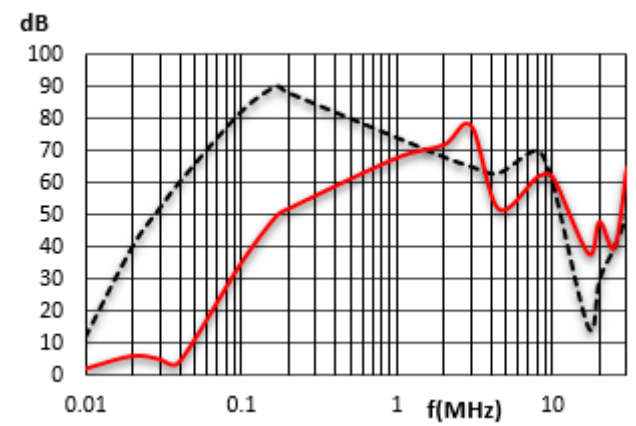
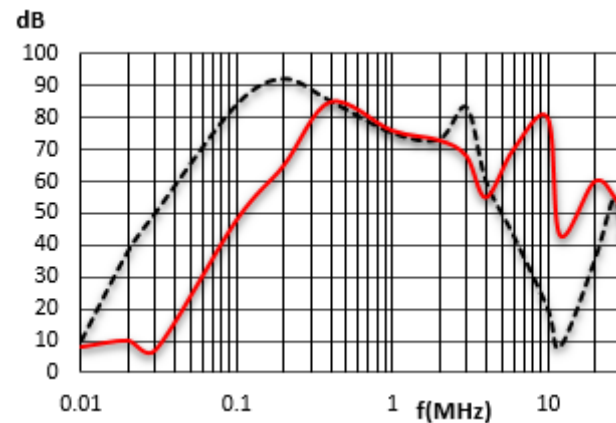
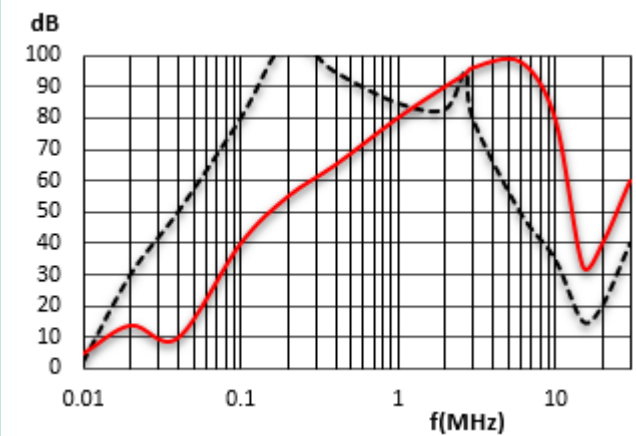


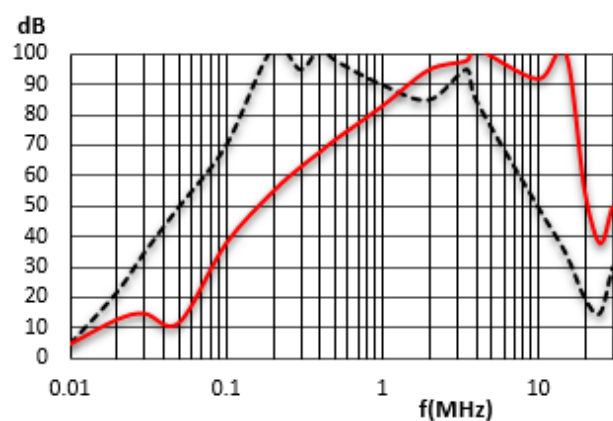
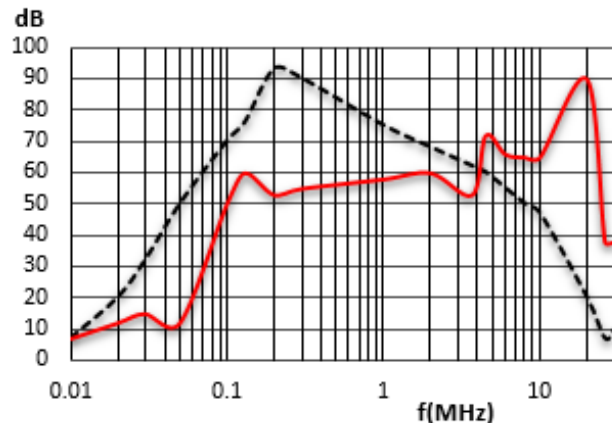
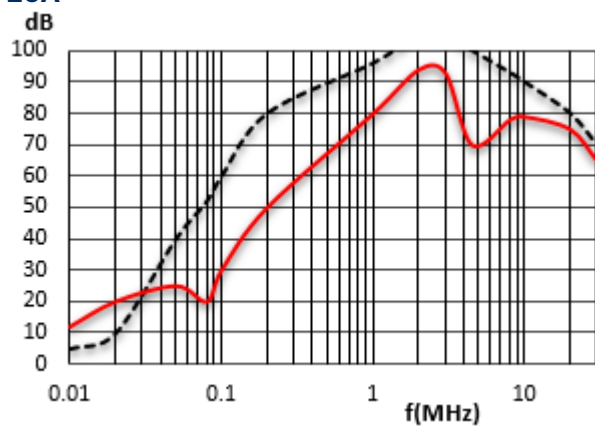
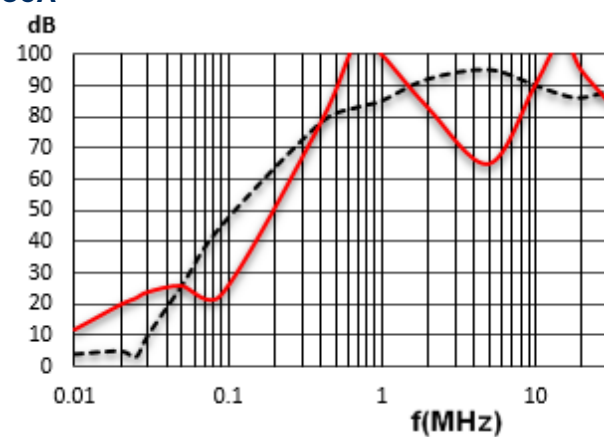
10A



12A**16A****25A****36A**

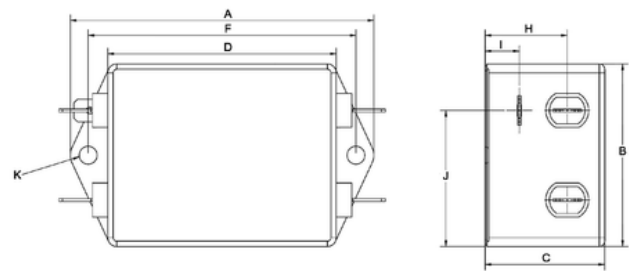


25A**36A****Enhanced Version****1A****3A****6A****10A**

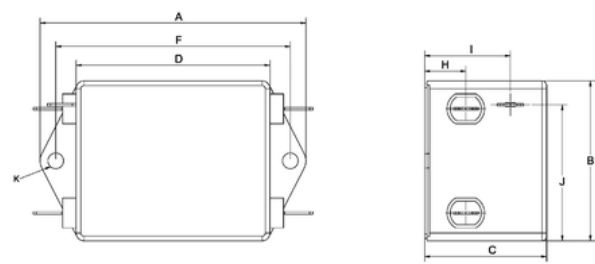
12A**16A****25A****36A**

Mechanical Drawing:

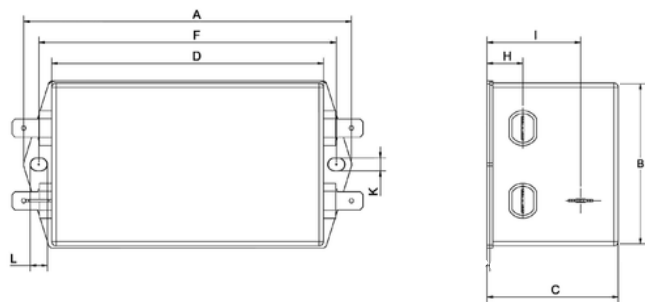
Connection Style - 04, 1A Type



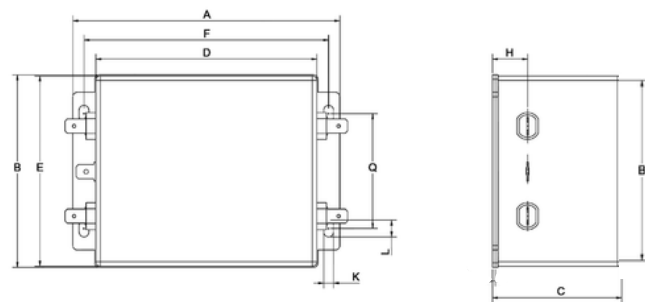
Connection Style - 04, 3A Type



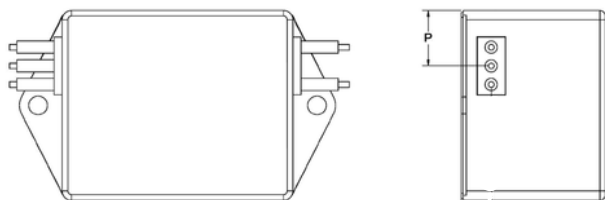
Connection Style - 04, 6A to 12 Type



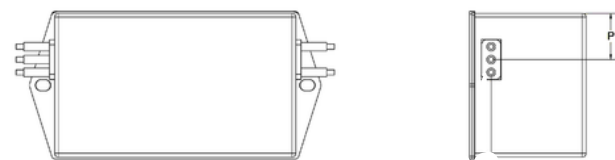
Connection Style - 04, 16A Type



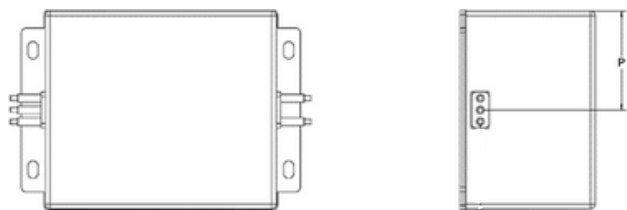
Connection Style - 05, 1A to 3A Type
(same dimension as style -04)



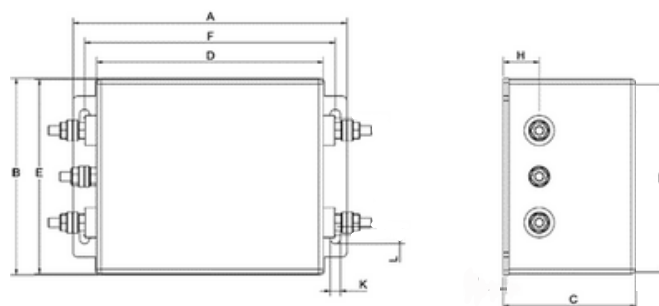
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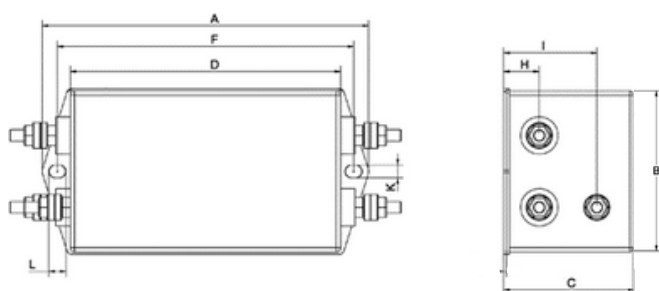
**Connection Style - 05, 16A Type
(same dimension as style -04)**



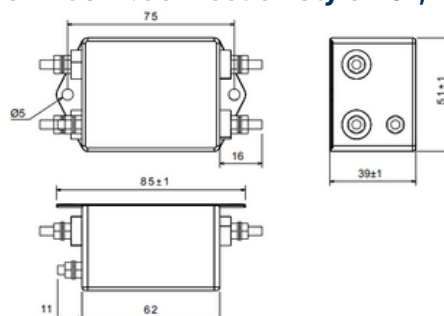
**Connection Style - 01, 16A Type
(same dimension as style -03)**



Connection Style - 01, 10A, 12A, 25A and 36A Type



SMF2232-16S-1 :Connection Style - 01,16A Type



Mechanical Dimensions:

	1A	3A	6A	10A	12A	16A	25A	36A
A	86±1	85±1	113.5±1	156±1	156±1	119±1	156±1	156±1
B	51±1	51±1	57.5±1	57.5±1	57.5±1	85.5±1	57.5±1	57.5±1
C	32.5±1	39±1	45.4±1	45.4±1	45.4±1	57.6±1	45.4±1	45.4±1
D	64±1	62±1	94±1	130.5±1	130.5±1	98.5±1	130.5±1	130.5±1
E	-	-	56	56	56	84.5	56	56
F	75	75	103	143	143	109	143	143
H	21.5±1	13±1	12.4±1	12.4±1	12.4±1	15.6±1	12.4±1	12.4±1
I	9±1	27.5±1	32.4±1	32.5±1	32.5±1	-	32.5±1	32.5±1
K	5	5	4.4	5.3	5.3	4.4	5.3	5.3
L	-	-	6	6	6	7.4	6	6
Connection Style-04	6.3x0.8	6.3X0.8	6.3X0.8	6.3X0.8	6.3X0.8	6.3X0.8	-	-
Connection Style-05	8.3	8.3	8.4	8.4	8.4	8.6	-	-
P	14.9	14.9	18	18	18	42.25	-	-
AWG Type Wire	AWG 20	AWG 20	AWG 18	AWG 18	AWG 16	AWG 16	-	-
Wire Length	140	140	140	140	140	140	-	-
Connection Style-01	-	-	-	M4	M4	M4	M4	M4
Recommended Torque (Nm)	-	-	-	1.2-1.3	1.2-1.3	1.2-1.3	1.2-1.3	1.2-1.3
Earth Terminal Recommended torque (Nm)	-	-	-	1.5-1.7	1.5-1.7	1.5-1.7	1.5-1.7	1.5-1.7

All dimensions in mm;Tolerance according: ISO 2768-C