3-phase inverter/PDS filtering

FN 258

- 7 to 250A current ratings
- 480V/50°C ratings for world compatibility and simple specification
- Slim book-style housing
- Designed for long cable lengths (50m/54yds+)

- Nennströme von 7 bis 250A
- 480V/50°C für weltweite Kompatibilität und einfaches Spezifizieren
- Schlankes Gehäuse in Buchform
- Für lange Kabel (50m) ausgelegt

- Courant de service de 7 et 250A
- Tension 480V (50°C) assurant une compatibilité internationale
- Boîtier vertical étroit taille réduite
- Conçu pour câbles de plus de 50m

Technical specifications

Maximum operating voltage: 480VAC @ 50ºC for all standard types
690VAC @ 50ºC (HV-types) up to 130 A
690VAC @ 50ºC (HVIT-types) up to 130 A
Operating frequency: DC to 60Hz @ 50ºC
Hipot test voltage: P → E 2900VDC; P → P 2800VDC
MTBF at 50°C, 400V per Mil-HB-217F: 220,000 hours
Protection category: IP20
Overload: 4 times rated current at switch on, then 1.5 times rated current for 1 minute, once per hour

Approvals

Standard types:

up to 180A up to 180A (except -180-07)

HV and HVIT types:

(600VAC)

Filter	Current ratings at 50ºC (40º) A	Leakage current† (480V/50Hz) mA	Power loss W	Component values/phase ΣL mH	ΣCx µF	ΣCy µF	R1 MΩ	R2 MΩ	Connections input	Connections output		Weight kg
FN 258 -7 / ??	7 (8)	18.0	9	4.5	4	1.5	1.5	0.68	/29	/07*	/29	1.0
FN 258 -16 / ??	16 (18)	20.0	20	3.0	5.9	1.5	1.5	0.68	/29	/07*	/29	1.4
FN 258 -30 / ??	30 (34)	26.5	19	2.0	6.6	2.2	1.5	0.68	/33	/07*	/33	1.7
FN 258 -42 / ??	42 (47)	28.2	30	1.5	6.6	2.3	1.5	0.68	/33	/07*	/33	2.5
FN 258 -55 / ??	55 (62)	28.2	31	1.1	6.6	2.3	1.5	0.68	/34	/07*	/34	2.9
FN 258 -75 / ??	75 (85)	28.2	23	0.9	6.6	2.3	1.5	0.68	/34		/34	3.9
FN 258 -100 / ??	100 (113)	28.2	41	0.9	6.6	2.3	1.5	0.68	/35		/35	5.5
FN 258 -130 / ??	130 (145)	32.8	50	0.6	11	2.3	1.5	0.68	/35		/35	6.9
FN 258 -180 / ??	180 (204)	32.8	68	0.13	11	2.3	1.5	0.68	/40	/07*	/40	11
FN 258 -250 / ??	250 (280)	32.8	75	0.13	26.4	2.3	1.5	0.68	/40	/07*	/40	12

† Max. leakage under normal circumstances. Note: if two phases are interrupted, worst case leakage current could reach 5.6 times higher levels. Filters with lower leakage current (P [3.5mA] and L [0.8mA] types) are available on request.
*HV & HVIT types are not available as /07 versions

Mechanical data

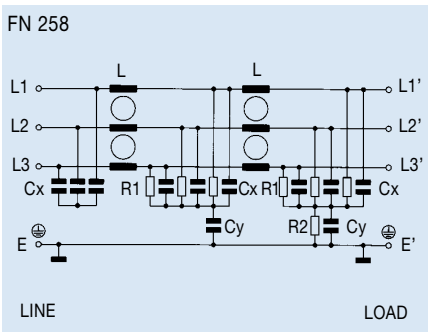
Current	-7	-16	-30	-42	-55	-75	-100	-130	-180	-250	Tol.* mm
A	255	305	335	329		329	379 ± 1.5	439 ± 1.5	438 ± 1.5	478 ± 1.5	±1
B	126 ± 0.8	142 ± 0.8	150 ± 1	185 ± 1		220		240			±1.5
C	50	55	60	70	80	80	90 ± 0.8	110 ± 0.8			±0.6
D	225 ± 0.8	275 ± 0.8	305	300		300	350 ± 1.2	400 ± 1.2		440 ± 1.2	±1
E	240	290	320	314		314	364	414	413	453	±0.5
F	25	30	35	45	55	55	65	80			±0.3
G	6.5										±0.2
H	300		400	500					500		±15
J	1 ± 0.1			1.5				3	4		±0.2
L	9			12					15		±1
O	M5			M6			M10				–
P	AWG 16	AWG 14	AWG 10	AWG 8	AWG 6				50mm²	70mm²	–

All dimensions in mm; 1 inch = 25.4mm

* Measurements share this common tolerance unless otherwise stated

Electrical schematic

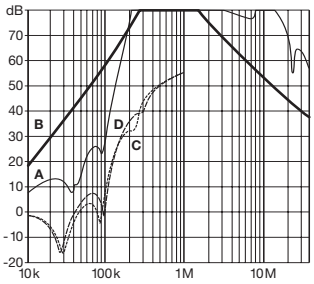
See table for component values



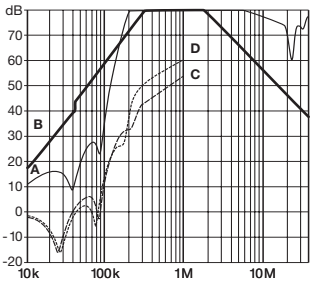
FN 258 insertion loss

Per CISPR 17; A = 50Ω/50Ω sym, B = 50Ω/50Ω asym, C = 0.1Ω/100Ω sym, D = 100Ω/0.1Ω sym

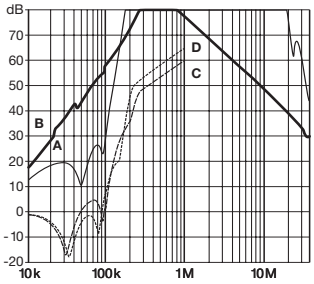
7 amp types



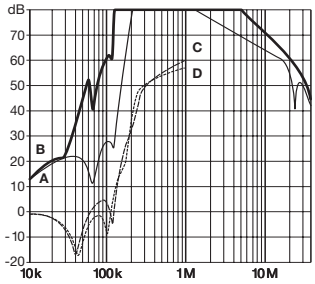
16 amp types



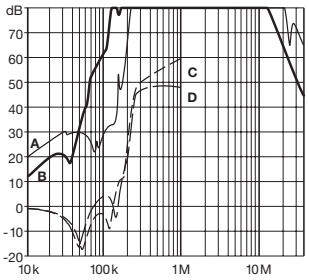
30 amp types



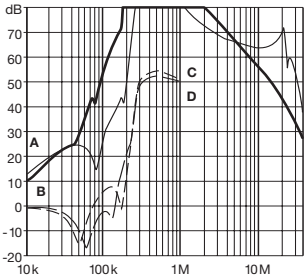
42 amp types



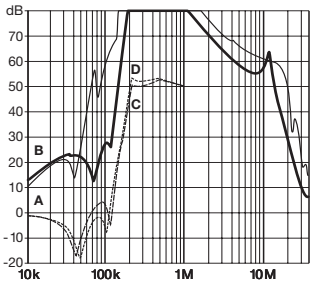
55 amp types



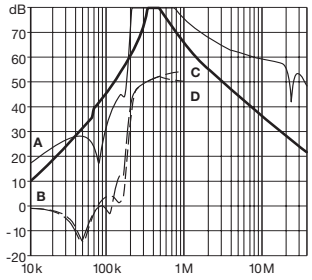
75 amp types



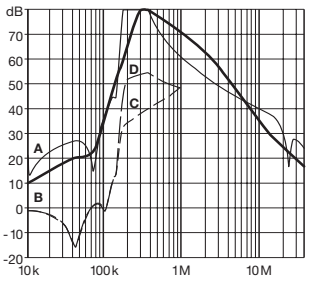
100 amp types



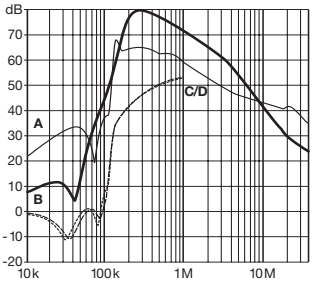
130 amp types



180 amp types



250 amp types



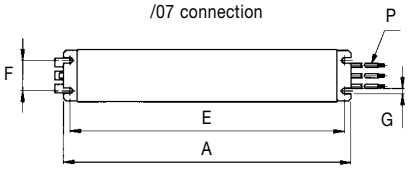
Note: the insertion loss values of the P and L types, as well as the HV and HVIT types, are not identical with those of the standard versions

Mechanical drawings

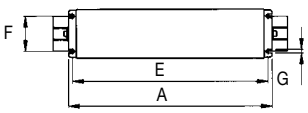
See mechanical data table for dimensions

Bottom view

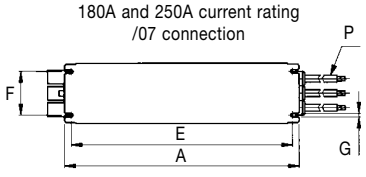
7 to 55A current ratings
/07 connection



7 to 250A current ratings



180A and 250A current rating
/07 connection



End/side view