RoHS 2002/95/EC

SCHAFFNER

High-power filter

FN 351

- 5 to 280A current ratings, 440V and 520V versions
- High differential/common mode attenuation
- IEC 950 compliant

- Nennströme von 5 bis 280A; 440V und 520V Versionen
- Hohe differentielle/Gleichtakt-Dämpfung
- IEC 950 konform

- Courants de service de 5 à 280A, versions pour 440V et 520V
- Bonne atténuation en modes symétrique et asymétrique
- Conforme à CEI 950

Technical specifications

Maximum operating voltage: 440VAC at 40ºC for standard types; 520VAC at 40ºC for H types
Hipot test voltage: standard: P → E 2600VDC; P → P 1900VDC; H: P → E 2800VDC, P → P 2300VDC
MTBF at 40°C, 400Vper Mil-HB-217F: 135,000 hours standard types, 100,000 hours H types (at 500 V)
Protection category: IP20; Operating frequency: DC to 60 Hz
Overload: 4 times rated current at switch on, then 1.5 times rated current for 1 minute, once per hour

Approvals

up to 110A up to 110A up to 110A

C US

H-types up to 110A

Filter	Current ratings at 40ºC (25º) A	Leakage current† IEC 1000-2-4 mA at 50Hz	Power loss W	Component values/phase L mH	ΣCx µF	ΣCy µF	R1 MΩ	R2 MΩ	Phase connections	Weight kg
FN 351 -5 /??	5 (5.8)	1.9	6	12	1.6	0.17	2		/29	0.6
FN 351 -8 /??	8 (9.2)	1.9	7	7.6	1.6	0.17	2		/29	0.8
FN 351H -8 /??	8 (9.2)	2.5	7	7.6	1.6	0.17	2		/29	1.1
FN 351 -16 /??	16 (18.4)	1.9	8	5.2	3.4	0.17	1.5		/29 /46	1.3
FN 351H -16 /??	16 (18.4)	2.5	8	5.2	3.3	0.17	1.5		/29	1.3
FN 351 -25 /??	25 (28.8)	28.0	8	2.2	4.4	1.8	1.5	1.1	/33 /46	1.4
FN 351H -25 /??	25 (28.8)	35.4	8	2.2	3.3	2	1.5	1.1	/33	1.4
FN 351 -36 /??	36 (41.5)	28.0	9	1.3	4.4	1.8	1.5	1.1	/33 /47	1.5
FN 351H -36 /??	36 (41.5)	35.4	9	1.3	3.3	2	1.5	1.1	/33	1.5
FN 351 -50 /??	50 (57.7)	29.6	11	0.8	4.4	2	1.5	1.1	/33 /34 /47 /52	1.6
FN 351H -50 /??	50 (57.7)	35.4	11	0.8	3.3	2	1.5	1.1	/33 /34	1.6
FN 351 -64 /??	64 (73.8)	29.6	15	0.65	4.4	2	1.5	1.1	/33 /34 /47 /52	1.7
FN 351H -64 /??	64 (73.8)	35.4	15	0.65	3.3	2	1.5	1.1	/33	1.7
FN 351 -80 /??	80 (92.3)	31.8	23	0.85	6.7	2.2	1.5	1.1	/34	5.6
FN 351H -80 /??	80 (92.3)	41.3	23	0.85	6.1	2.2	1.5	1.1	/34	5.6
FN 351 -110 /??	110 (127)	31.8	25	0.5	6.7	2.2	1.5	1.1	/35	5.8
FN 351H -110 /??	110 (127)	41.3	25	0.5	6.1	2.2	1.5	1.1	/35	5.8
FN 351 -180 /??	180 (207)	31.3	49	0.5	5	2.2	1.5	1.1	/36	12
FN 351H -180 /??	180 (207)	40.7	49	0.5	5	2.2	1.5	1.1	/36	12
FN 351 -280 /??	280 (323)	35.8	70	0.3	10	2.6	1.5	1.1	/37	27
FN 351H -280 /??	280 (323)	46.5	70	0.3	10	2.6	1.5	1.1	/37	27

†Max. leakage under normal circumstances. Note: if two phases are interrupted, worst case leakage current could reach 7.6 times (5A to 16A types) or 6.0 times (25A to 280A types) higher levels. Measured at: standard types 400VAC; H types 520VAC.

Mechanical data

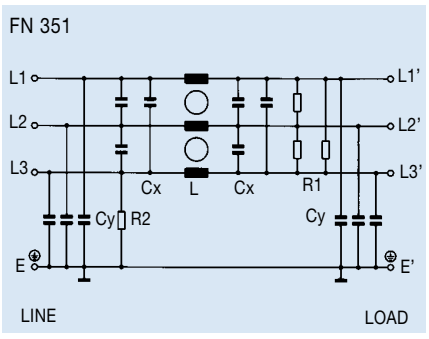
Current	-5	-8 (std voltage)	-8, -16 (H type)	-25, -36, -50, -64	-80, -110	-180	-280	Tol.* ± mm
A	150	180	200		400	510	700	± 1
B	105	115	150		170 ± 1	180 ± 1	260 ± 1	± 0.5
C	50	60	65	75†	90 ± 1	115 ± 1	130 ± 1	± 0.5
D	75	85	120		350	360	530	± 1
E	85	115			373	470 ± 0.5	660 ± 0.5	± 0.3
F	90	100 ± 0.5	136		130 ± 0.2	156 ± 0.5	220 ± 0.5	± 0.3
G	0.7		0.7/1.0	1.0		4 ± 0.2		± 0.1
H	19	20 ± 2			25			± 1
K	17	17 ± 0.5			20	30		± 1
M	6.5	6.4			15	16		± 0.2
N					6.5	9 ± 0.2		± 0.2
P	M6				M10			-

All dimensions in mm; 1 inch = 25.4mm

†for connections /34 and /52 only
* Measurements share this common tolerance unless otherwise stated

Electrical schematic

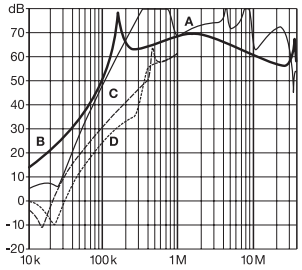
See table for component values



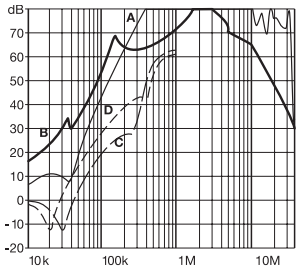
FN 351 insertion loss

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

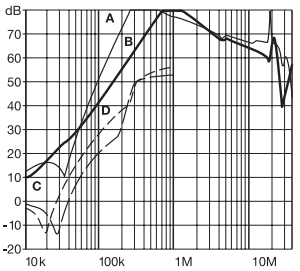
5 amp types



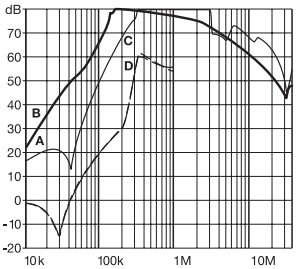
8 amp types



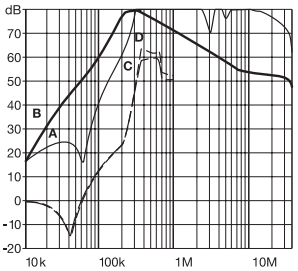
16 amp types



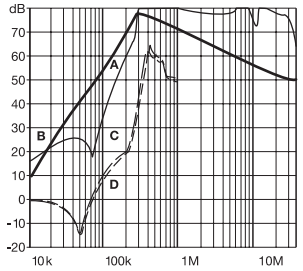
25 amp types



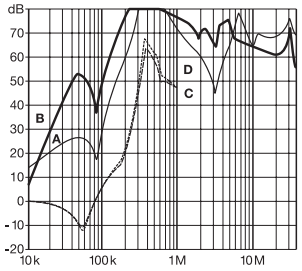
36 amp types



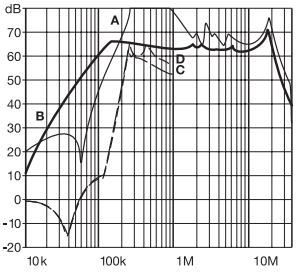
50 amp types



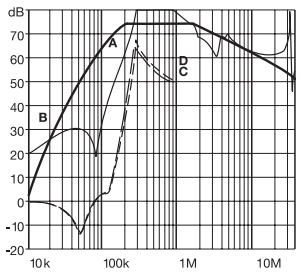
64 amp types



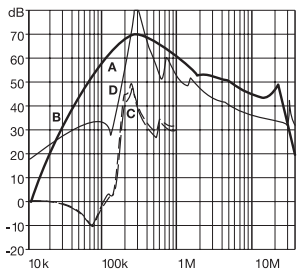
80 amp types



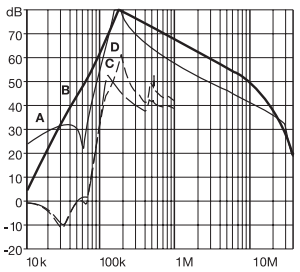
110 amp types



180 amp types



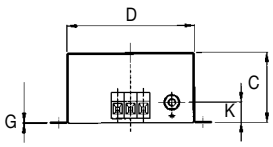
280 amp types

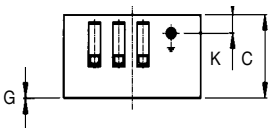


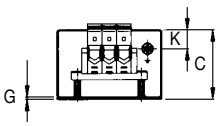
Mechanical drawings

See mechanical data table for dimensions

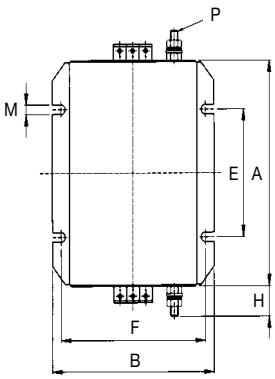
Front



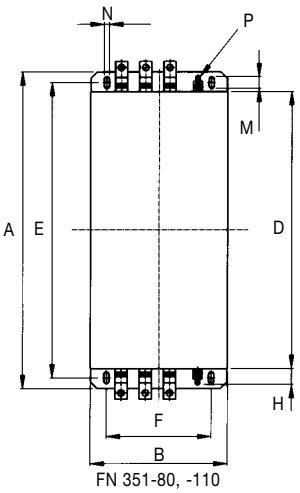




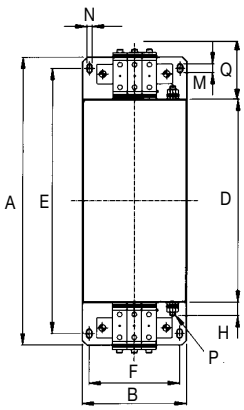
Top



FN 351-5, -8, -16, -25, -36, -50, -64
/29 connections shown



FN 351-80, -110



FN 351-180, -280