



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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High-power Performance EMI Filter

SCHAFFNER
energy efficiency and reliability



- Rated currents from 10 to 36A
- Excellent differential and common-mode attenuation

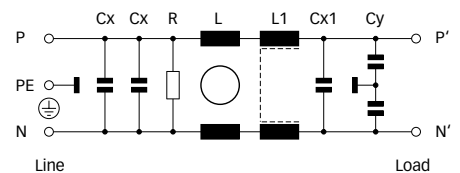
Approvals



Technical specifications

Maximum continuous operating voltage:	250VAC, 50/60Hz
Operating frequency:	dc to 400Hz
Rated currents:	10 to 36A @ 40°C max.
High potential test voltage:	P → PE 2000VAC for 2 sec P → N 760VAC for 2 sec
Temperature range (operation and storage):	-25°C to +100°C (25/100/21)
Flammability corresponding to:	UL 94V-2 or better
Design corresponding to:	UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939
MTBF @ 40°C/230V (Mil-HB-217F):	400,000 hours

Typical electrical schematic



Features and benefits

- FN 685 filters are designed for easy and fast chassis mounting.
- FN 685 two-stage filters provide an excellent high differential and common-mode attenuation performance, based on chokes with high saturation resistance and very good thermal behavior.
- FN 685 two-stage filters are designed for very high noise suppression over a broad frequency range.
- Faston terminal connection with additional spade solder possibility or screw mounting connection.
- Custom-specific versions on request.

Typical applications

- Electrical and electronic equipment
- Consumer goods
- Power supplies
- Building automation
- Elevators and cranes
- Office automation equipment
- Datacom equipment

Filter selection table

Filter*	Rated current @ 40°C (25°C)	Leakage current** @ 230VAC/50Hz	Inductance		Cx	Capacitance		Resistance R	Input/Output connections			Weight
	[A]	[μA]	L	L1		Cx1	Cy		[kΩ]			
FN 685-10-..	10 (12)	410	4.2	0.04	470	220	4.7	330	-03	-06		1.2
FN 685-16-..	16 (19.2)	410	2.3	0.04	470	220	4.7	330	-03	-06		1.35
FN 686-25-23	25 (30)	1900	1.35	0.04	470	220	22	330			-23	2.35
FN 686-36-23	36 (43.2)	1900	0.8	0.03	470	220	22	330			-23	2.85

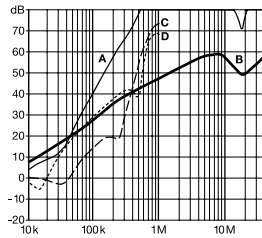
* To compile a complete part number, please replace the -.. with the required I/O connection style (e.g. FN 685-10-03, FN 685-16-06).

** Maximum leakage under normal operating conditions. Note: if the neutral line is interrupted, worst case leakage could reach twice this level.

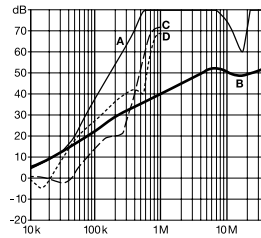
Typical filter attenuation

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

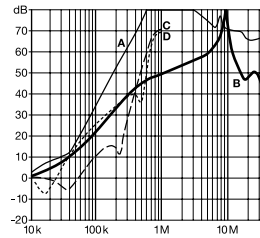
10A types



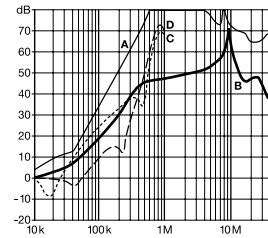
16A types



25A types

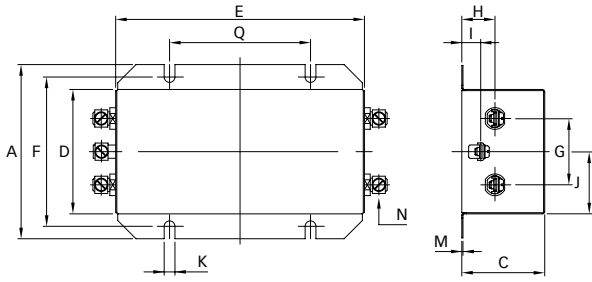


36A types

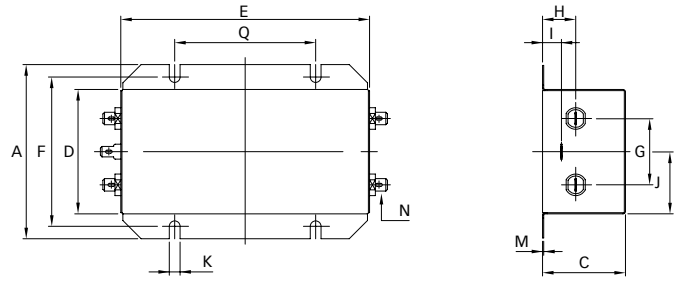


Mechanical data

Connection style -03 and -23



Connection style -06



Dimensions

	10A	16A	25A	36A	Tolerances
A	105	105	129 ±1	129 ±1	±0.5
C	50	50	60	60	±0.5
D	75	75	100	100	±0.5
E	150	150	170.6	170.6	±0.5
F	90	90	113 ±0.2	113 ±0.2	±0.5
G	40	40	50	50	±0.2
H	20	20	24	24	±0.5
I	11	11	15	15	±0.5
J	37.5	37.5	50	50	±0.5
K	6.5	6.5	6.5	6.5	
M	0.7	0.7	0.7	0.7	
N	6.3 x 0.8	6.3 x 0.8			
Connection style -03					
N	M4	M4			
Q	85	85			±0.1
Connection style -23					
N			M5	M5	
Q			115	115	±0.2

All dimensions in mm; 1 inch = 25.4mm
Tolerances according: ISO 2768-m / EN 22768-m

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