

## FN 251

## Filter for motor drives

- 4 to 24A current ratings
  - compact size
  - insulated safety input terminals
  - wire outputs
- Nennströme von 4 bis 24A
  - Kompakte Bauform
  - Berührungssichere Anschlußklemmen
  - Litzen an den Ausgängen
- courant de service entre 4 et 24A
  - taille réduite compacte
  - connexions d'entrée par bornes de sécurité isolées
  - connexions de sortie par fils



### Technical specifications

Maximum operating voltage: 440VAC at 40°C; Operating frequency: DC to 60Hz at 40°C  
 Hipot test voltage: P ⇒ E 2000VAC; P ⇒ P 1700VDC  
 MTBF at 40°C, 400V per Mil-HB-217F: 160,000 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



Filter	Current ratings at 40°C (25°) A	Leakage current† (400V/50Hz) mA	Power loss W	Component values/phase					Connections input	Connections output	Weight kg
				L mH	L1 mH	Cx µF	Cy nF	R kΩ			
FN 251 - 4 / 07	4 (4.6)	0.5	5.5	7	1.5	1	15	470	/29	/07	0.75
FN 251 - 8 / 07	8 (9.2)	0.5	7	4.2	1.5	1	15	470	/29	/07	0.75
FN 251 - 16 / 07	16 (18.4)	0.5	14	2.6	0.7	1	15	470	/29	/07	1.8
FN 251 - 24 / 07	24 (27.6)	0.5	18	1	0.5	1	15	470	/29	/07	1.95

† Max. leakage under normal circumstances. Note: if two phases are interrupted, worst case leakage current could reach 7.7 times higher levels.

### Mechanical data

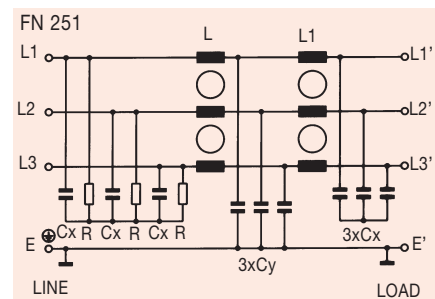
Current	-4, -8	-16, -24	Tol.* ± mm
A	145	180	± 0.5
B	75	115	± 0.5
C	40	60	± 0.5
D	123	85	± 0.5
E	135	115	± 0.2
F	55 ± 0.1	100	± 0.2
G		0.7	± 0.05
H		20	± 1
M	7 x 5.3	6.4	± 0.1
P		M6	-
W	1.31mm <sup>2</sup>	2.08mm <sup>2</sup>	-
Y		6	+1
Z		300	+10

All dimensions in mm; 1 inch = 25.4mm

\* Measurements share this common tolerance unless otherwise stated

### Electrical schematic

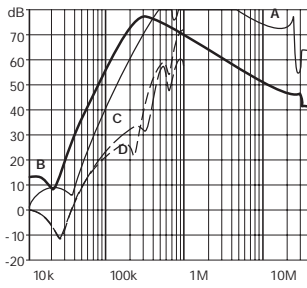
See table for component values



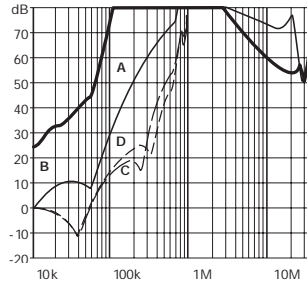
FN 251 insertion loss

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

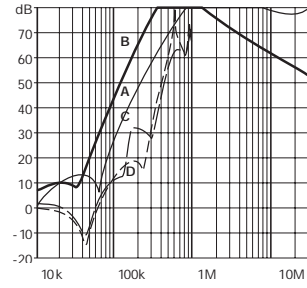
4 amp types



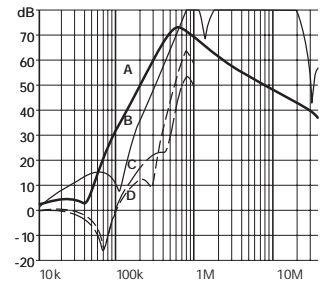
8 amp types



16 amp types



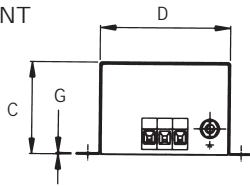
24 amp types



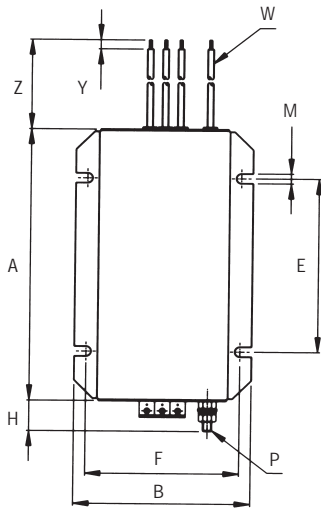
Mechanical drawings

See mechanical data table for dimensions

FRONT

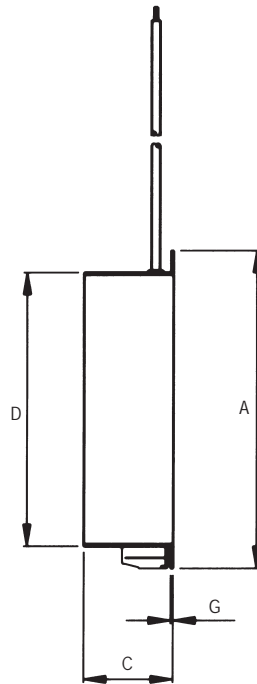


TOP

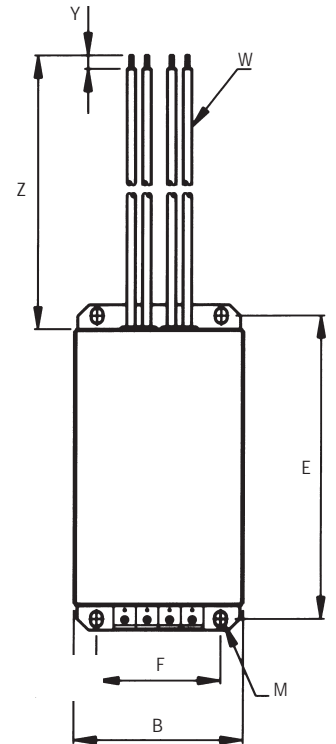


FN 251-16, -24  
Input connection: /29

SIDE



TOP



FN 251-4, -8  
Input connection: /29