

# 1-phase filters FN 352Z

## Multi-stage EMI filter



- Rated currents from 6 to 30A
- Surge pulse protection up to 2kA
- Solder or screw connection

### Approvals

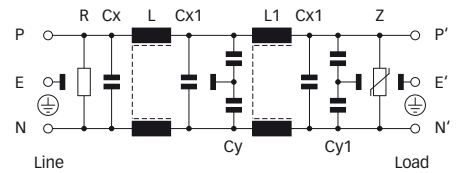


### Technical specifications

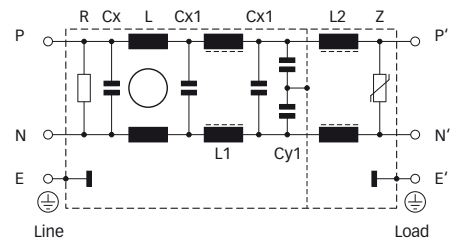
Maximum continuous operating voltage:	250VAC, 50/60Hz
Operating frequency:	dc to 400Hz
Rated currents:	6 to 30A @ 40°C max.
High potential test voltage:	P → E 2000VAC for 2 sec P → N 350VDC for 2 sec
Energy absorption:	40J
Temperature range (operation and storage):	-25°C to +85°C (25/85/21)
Flammability 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):	230,000 hours

### Typical electrical schematic

#### 6A types



#### 10 to 30A types



### Features and benefits

- FN 352Z series is developed to meet high filter attenuation requirements by using multi-stage filter design.
- Additional high surge pulse voltage protection up to 2kA is integrated to protect sensitive equipment.
- Choosing FN 352Z product line brings you the rapid availability of a standard filter associated with the necessary safety acceptances.
- Standard filters are a practical solution helping you to pass EMI system approval in a short time.
- Exceptional conducted attenuation performance, based on multi-stage design and chokes with high saturation resistance and excellent thermal behavior.
- Various connection options.
- Custom-specific versions on request.

### Typical applications

- Facility management
- Industrial
- Telecommunication
- Data processing
- Electrical and electronic equipment

Filter selection table

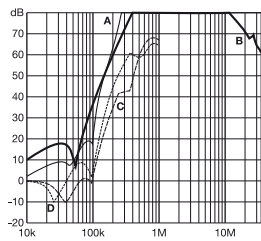
Filter	Rated current @ 40°C (25°C) [A]	Leakage current* @ 230VAC/50Hz [µA]	Inductance			Capacitance				Resistance R [MΩ]	Energy absorption [J]	Input/Output connections	Weight [g]
			L	L1	L2	Cx	Cx1	Cy	Cy1				
FN 352Z-6-06	6 (7.2)	420	3	3		470	220	3.3	1.5	0.47	40	-06	575
FN 352Z-10-29	10 (12)	1300	5	0.06	0.003	220	220	15	15	0.47	40	-29	1320
FN 352Z-20-29	20	1300	3.5	0.06	0.0035	220	220	15	15	0.47	40	-29	2950
FN 353Z-30-33	24 (30)	1300	2.3	0.025	0.035	470	220	15	15	0.23	40	-33	3100

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

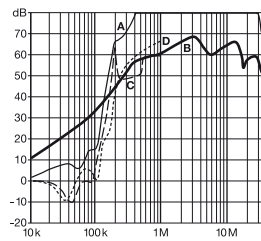
Typical filter attenuation

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

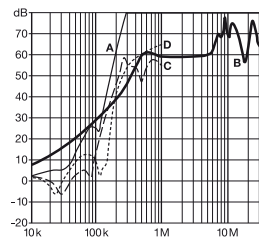
6A types



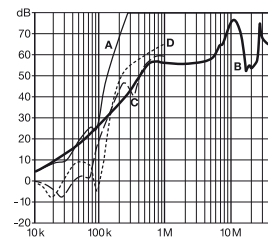
10A types



20A types

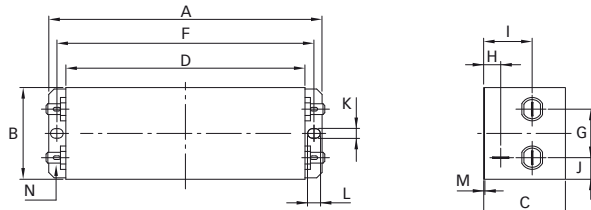


30A types

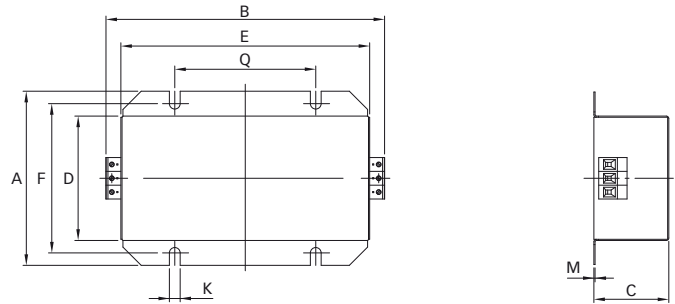


**Mechanical data**

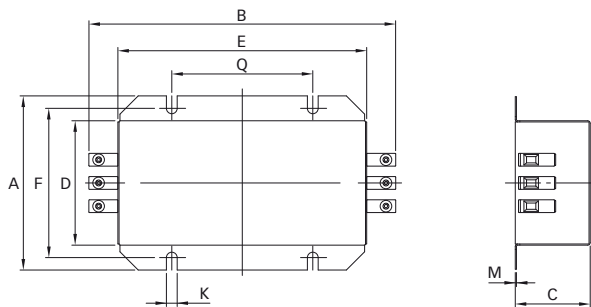
6A types



10 and 20A types



30A types



**Dimensions**

	6A	10A	20A	30A	Tolerances
A	152	126	150	150	±0.5
B	51	172.3	221.8	250	±0.5
C	45	55.25	65	65	±0.5
D	133	100.5	119.5	119.5	±0.5
E		150.5	200	200	±0.5
F	143	112	135	135	±0.5
G	27				±0.5
H	9.5				±0.5
I	27				±0.5
J	12				±0.5
K	5.3	6.4	6.4	6.4	
L	7				
M	0.5				
N	6.3 x 0.8				
Q		85	115	115	±0.1

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

**Filter input/output connector cross sections**

	-06	-29	-33
Solid wire	n/a	6mm <sup>2</sup>	16mm <sup>2</sup>
Flex wire	n/a	4mm <sup>2</sup>	10mm <sup>2</sup>
AWG type wire	n/a	AWG 10	AWG 6
Recommended torque	n/a	0.6 - 0.8Nm	1.5 - 1.8Nm