

Multi-stage EMI Filter with Excellent Attenuation Performance



- Rated current from 1 to 30 A
- Two stage filter
- Very high differential and common mode attenuation
- Optional medical version (Type B)
- Optional safety version (Type A)
- Optional overvoltage protection (Type Z)

Approvals:



Technical specifications

Maximum continuous operating voltage: 250VAC, 50/60Hz

Operating frequency: dc to 400Hz

Rated currents: 1 to 30A @ 40°C max.

High potential test voltage: L → PE 3000VDC for 2 sec (standard types)

L → PE 3500VDC for 2 sec (B types)

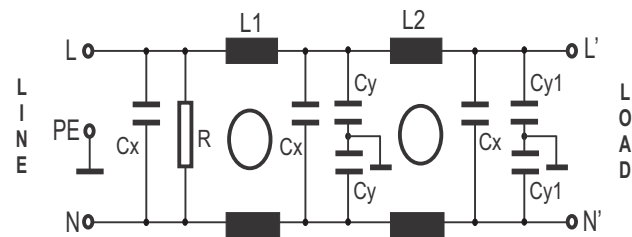
L → N 1100VDC for 2 sec

Temperature range (operation and storage): -25°C to +100°C (25/100/21)

Design corresponding to: UL 1283,

Surge pulse protection (optional): 2kV.

CIRCUIT DIAGRAM:



Feature and Benefits




- BL2090 two-stage filters are designed for easy and fast chassis mounting.
- The BL2090 filters are also available as B versions with no Y-capacitors for medical applications as well as A versions with low capacitance for safety critical applications with a requirement for low leakage currents.
- All filters provide an exceptional conducted attenuation performance, based on chokes with high permeable core material and excellent thermal behavior.
- BL2090 two-stage filters are designed for noisy applications requiring excellent filter performance
- The higher inductivity versus amperage offers increased attenuation performance with the same form factor compared to BL 2060 and BL 2080 filter series.
- All BL 2090 filters can be delivered with optional surge pulse protection.
- BL 2090 filters are also available as single stage filters (BL2030 series).
- Various terminal options allow you to select the desired connection style

Typical Application

- Electrical and electronic equipment
- Consumer goods
- Household equipment
- Building automation
- Industrial applications
- Machinery
- Medical equipment
- Electronic data processing equipment
- Office automation and datacom equipment
- Various noisy applications requiring high filter performance

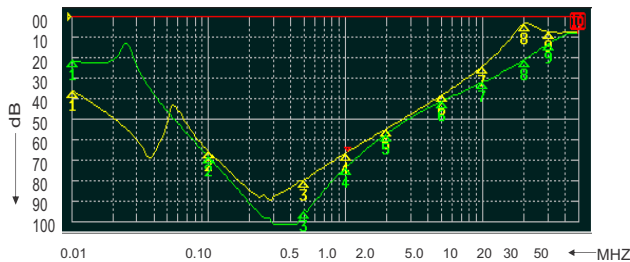
2 EMI FILTER>BL2090

FILTER SELECTION TABLE

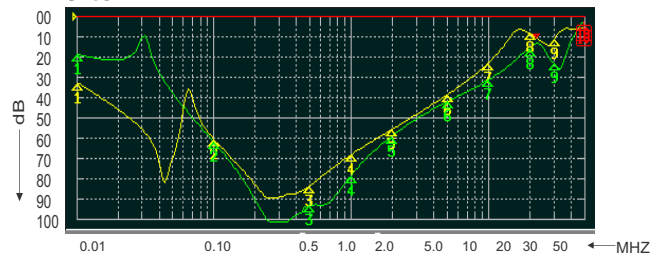
	Rated current @40°C	Leakage current @230V/50Hz	Inductance ΣL	Capacitance ΣCx	Capacitance ΣCy	Resistance ΣR	Connetion type	
	A	mA	mH	μF	nF	K_{Ω}		 
BL2090-01-F	1	0.5	40	0.66	6.4	680	F	W
BL2090-03-F	3	0.5	28	0.99	6.4	470	F	W
BL2090-04-F	4	0.5	28	0.99	6.4	470	F	W
BL2090-06-F	6	0.67	16	1.41	8.6	330	F	W
BL2090-08-F	8	0.67	16	1.41	8.6	330	F	W
BL2090-10-F	10	0.67	16	1.41	8.6	330	F	W
BL2090-12-F	12	1.02	08	3.00	22	220	F	W
BL2090-16-F	16	1.02	08	3.00	22	220	F	W
BL2090-20-F	20	1.02	5.4	3.00	22	220	F	S
BL2090-30-S	30	1.02	3.0	3.00	22	220		S
BL2090A-01-F	1	0.08	40	0.66	0.94	680	F	W
BL2090A-03-F	3	0.08	28	0.99	0.94	470	F	W
BL2090A-04-F	4	0.08	28	0.99	0.94	470	F	W
BL2090A-06-F	6	0.08	16	1.41	0.94	330	F	W
BL2090A-08-F	8	0.08	16	1.41	0.94	330	F	W
BL2090A-10-F	10	0.08	16	1.41	0.94	330	F	W
BL2090A-12-F	12	0.08	08	3.00	0.94	220	F	W
BL2090A-16-F	16	0.08	08	3.00	0.94	220	F	W
BL2090A-20-F	20	0.08	5.4	3.00	0.94	220	F	S
BL2090A-30-S	30	0.08	3.0	3.00	0.94	220		S
BL2090B-01-F	1	0.002	40	0.66		680	F	W
BL2090B-03-F	3	0.002	28	0.99		470	F	W
BL2090B-04-F	4	0.002	28	0.99		470	F	W
BL2090B-06-F	6	0.002	16	1.41		330	F	W
BL2090B-08-F	8	0.002	16	1.41		330	F	W
BL2090B-10-F	10	0.002	16	1.41		330	F	W
BL2090B-12-F	12	0.002	08	3.00		220	F	W
BL2090B-16-F	16	0.002	08	3.00		220	F	W
BL2090B-20-F	20	0.002	5.4	3.00		220	F	S
BL2090B-30-S	30	0.002	3.0	3.00		220		S

Insertion Loss: Common mode - 
Differential mode- 

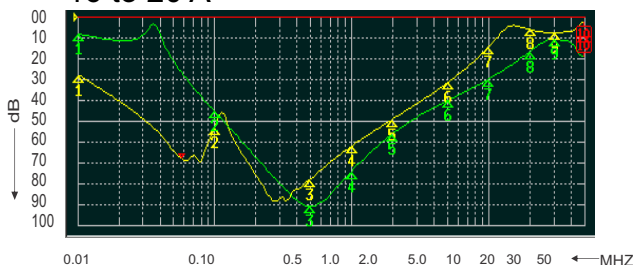
1 to 6 A



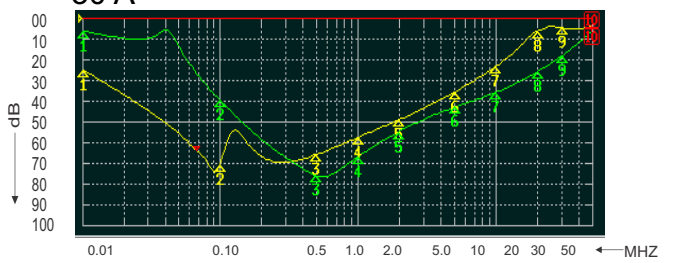
8 to 12 A

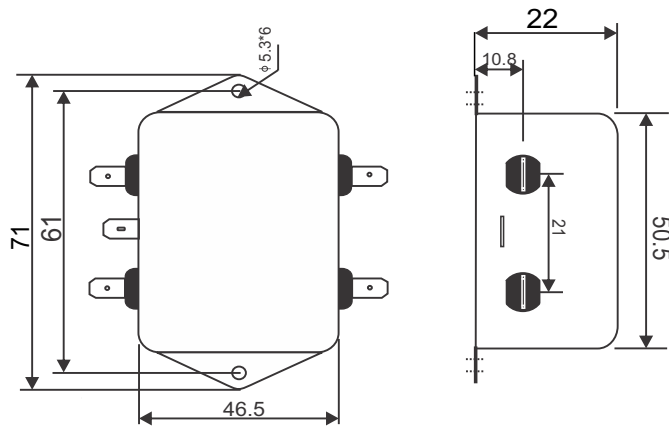
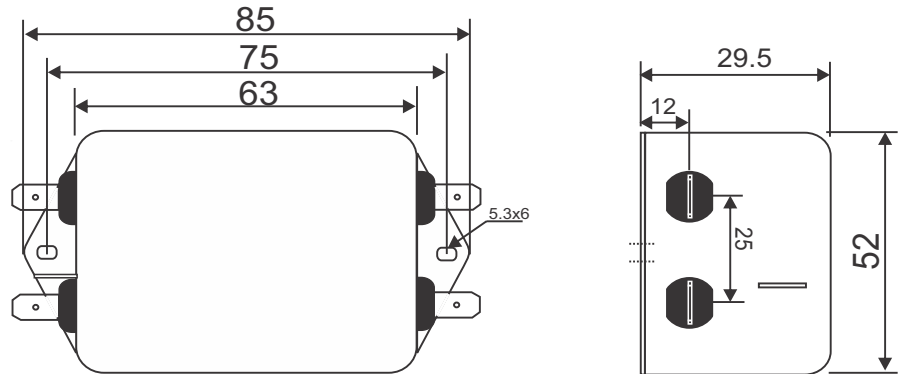
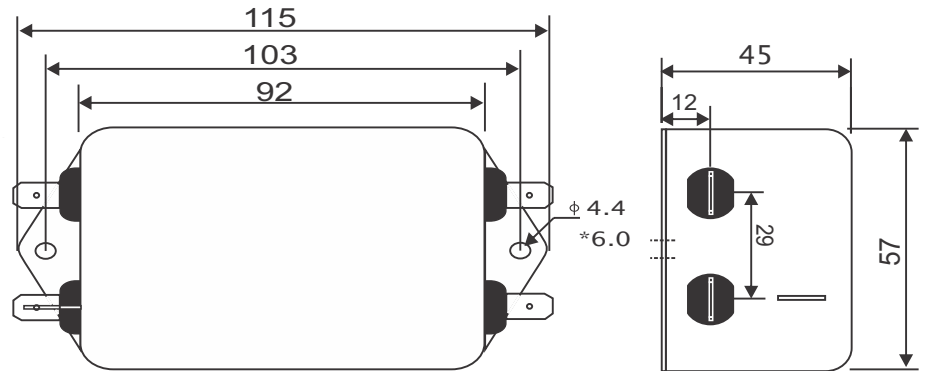
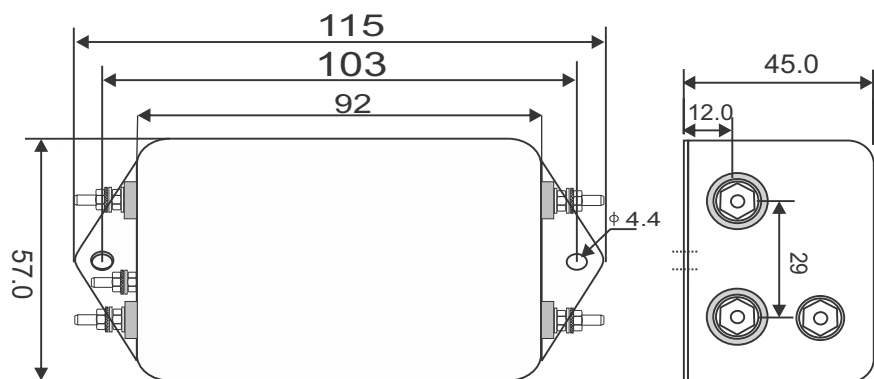


16 to 20 A



30 A



MECHANICAL DIMENSION (mm):CONNECTION TYPE -F
1ACONNECTION TYPE -F
3A TO 6ACONNECTION TYPE -F
8A TO 20ACONNECTION TYPE -S
20A & 30A**NOTE:**

All Dimension in mm
 Connection type F-Fast On Terminal(6.3x0.8)
 S-Screw (M4)