

# DC EMI FILTER For Solar and EV Charging

## Feature and Benefits

- Reduces conducted emissions towards the solar panel
- Reduces the probability of EMI radiation off the solar panel
- Helps to prevent pre-mature panel aging because of HF leakage currents
- Helps to meet international EMC regulations for the entire PV system
- Most compact standard solution in the industry, optionally available without capacitors to ground (B types)
- New: up to 2300 A



## Technical specifications

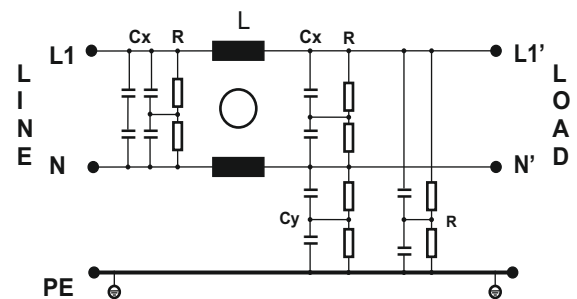
Maximum continuous operating voltage	1200 VDC max
Operating Frequency	DC
Rated Currents	25 to 2300A @50°C
High Potential Test voltage	L-GND 3000 VDC for 2 sec L-GND 3600 VDC for 2 sec (B types) L - N 1500 VDC for 2 sec
Temperature range (operation and storage)	-25°C to +100°C (25/100/21)
Certified to	UL 1283, EC/EN60939 (Applies to AC and DC Applications)
Flammability Corresponding to	UL 94V-2 better

BL1220 are the most compact dedicated DC filters for PV inverters in the industry and therefore support the integration in the ever shrinking frame sizes of today's power electronics. All BL1220 come in unsymmetrical housings, which help to prevent inverse installation and wrong electrical connection. Along with grid-side installed BLA ETECH AC EMC/EMI filters, BL1220 are key to meet the stringent international standards for electromagnetic compatibility (EMC) like EN 61000-6-3 and -6-4 and help to ensure a reliable and fault-free operation of the entire PV system. BL1220 are designed for very low power loss, to support overall PV system efficiency

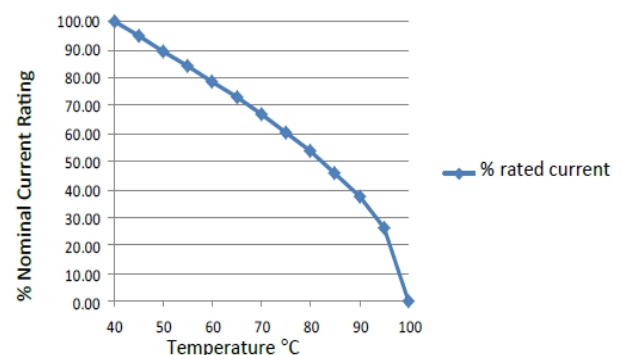
## Typical Application

- ELECTRICAL & ELECTRONICS APPLICATION
- DC FAST CHARGER
- DC MOTOR APPLICATION
- PV & SOLAR
- UPS & Inverter
- AUTOMATION & DATACOM EQUIPMENT

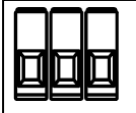
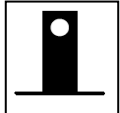
## ELECTRICAL SCHEMATIC



Temperature Derating Curve for EMC Filters Rated at 40°C Ambient and 100°C Maximum



## FILTER SELECTION TABLE

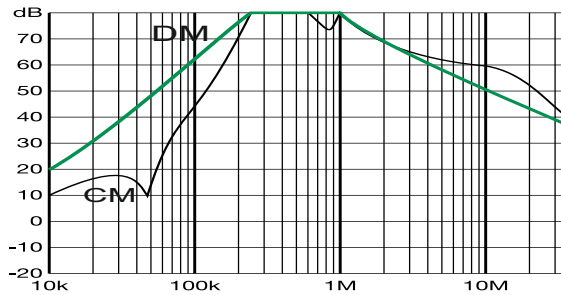
Filters	Rated current @50°C (40°C)	Inverter AC Power Rating	Filter Efficiency @	Power Loss @	Connetion type		Weight
	A	KW	25°C/DC	25°C/DC			Kg
BL1220-25-T	25(28)	10	>99.9%	8	T		1
BL1220-50-T	50(57)	20	>99.9%	17	T		1.6
BL1220-75-T	75(86)	30	>99.9%	18	T		1.7
BL1220-100-T	100(115)	40	>99.9%	22	T		2.8
BL1220-150-T	150(173)	60	>99.9%	31	T		5
BL1220-250-B	250(288)	100	>99.9%	10		B	5
BL1220-400-B	400(460)	150	>99.9%	16		B	6.1
BL1220-600-B	600(690)	250	>99.9%	29		B	6.5
BL1220-800-B	800(920)	350	>99.9%	26		B	9.5
BL1220-1000-B	1000(1150)	400	>99.9%	40		B	10
BL1220-1500-B	1500(1600)	500	>99.9%	45		B	15
BL1220-2300-B	2300(2500)	800/1000	>99.9%	84		B	25
<b>Without Ground Capacitor Version (Type B)</b>							
BL1220B-25-T	25(28)	10	>99.9%	8	T		1
BL1220B-50-T	50(57)	20	>99.9%	17	T		1.6
BL1220B-75-T	75(86)	30	>99.9%	18	T		1.7
BL1220B-100-T	100(115)	40	>99.9%	22	T		2.8
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BL1220B-1000-B	1000(1150)	400	>99.9%	40		B	10
BL1220B-1500-B	1500(1600)	500	>99.9%	45		B	15
BL1220B-2300-B	2300(2500)	800/1000	>99.9%	84		B	25

\* Based on rated DC current of typical 3-phase PV inverters with 900 VDC input. Note: depending upon manufacturer and model, DC currents for a given PV inverter power can differ significantly. Filters with higher current ratings for large central inverters up to the MW range are available upon request.

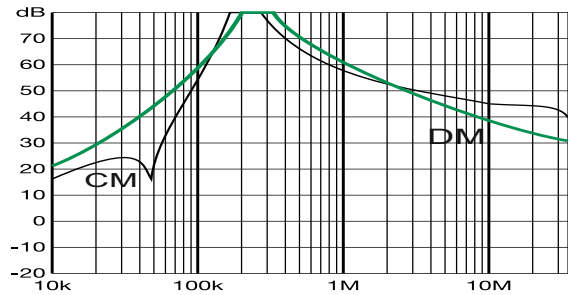
# TYPICAL INSERTION LOSS, dB (50/50 Ohm)

Common mode - —  
 Differential mode - —

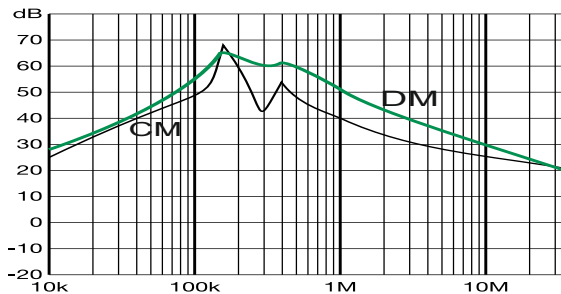
25 to 75 A types



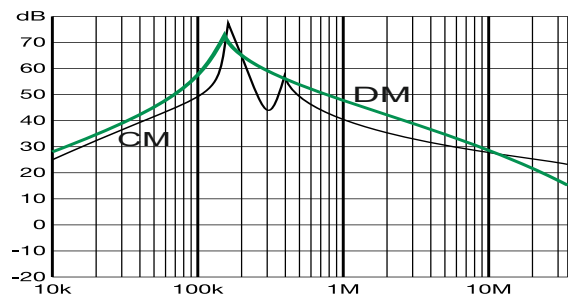
100 to 150 A types



250 A types

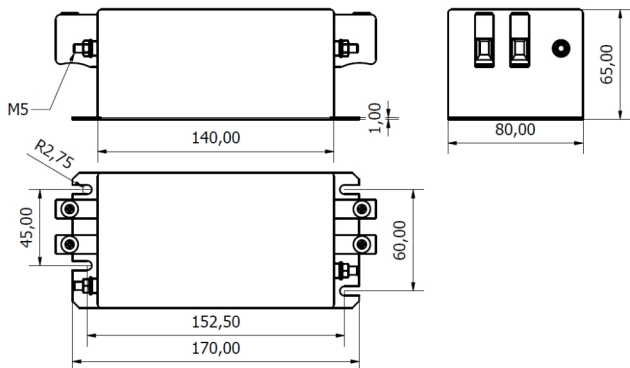


400 to 2300 A types

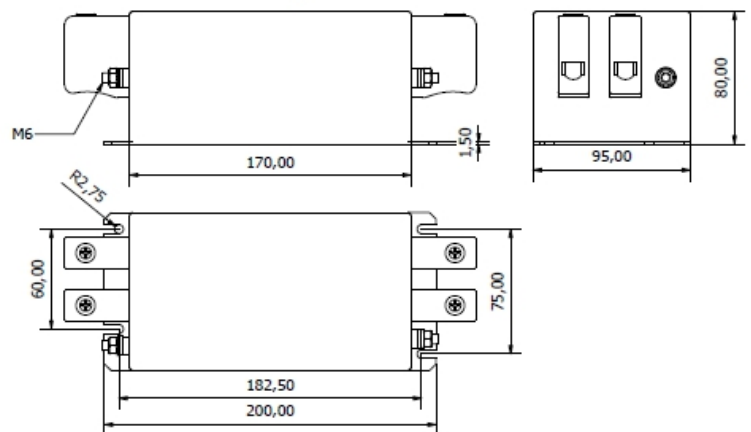


## MECHNICAL DETAILS

25Amp

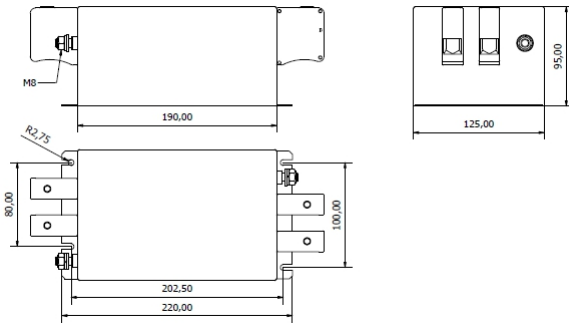


50 &amp; 75 Amp

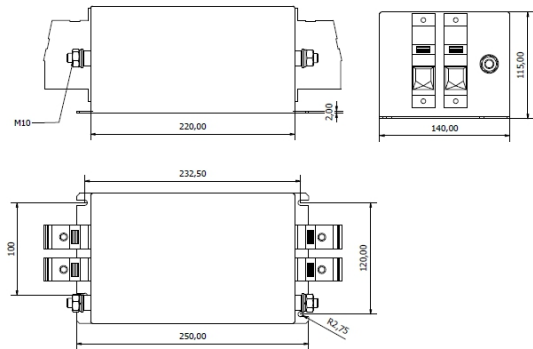


## MECHANICAL DETAILS

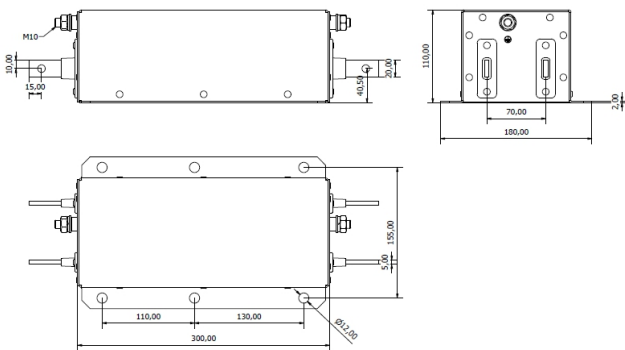
100Amp



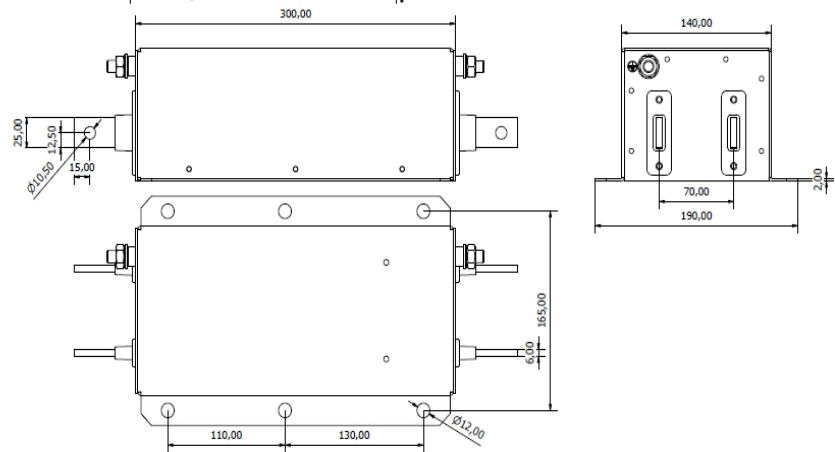
150Amp



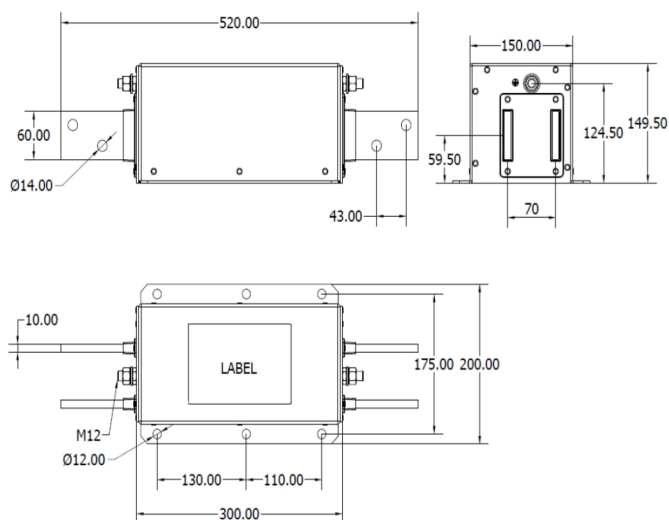
250Amp



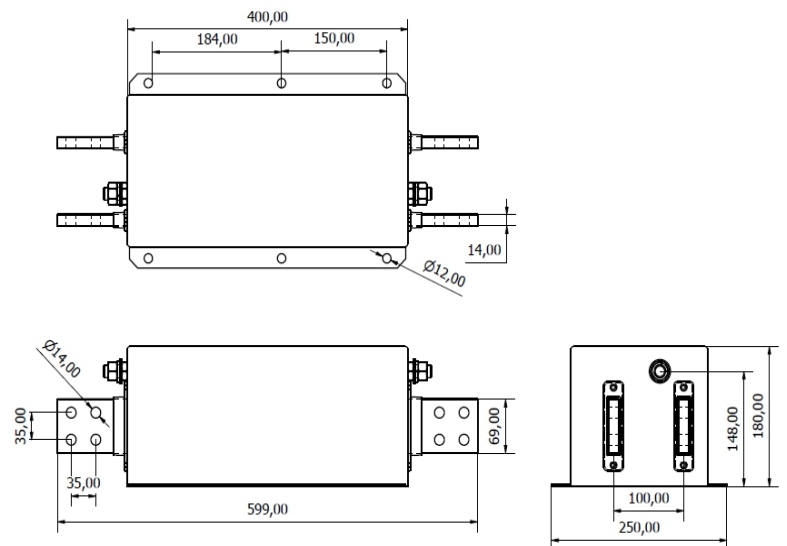
400,600 & 800 Amp



1000 & 1500 Amp



2300 Amp



**\*\*All Dimension are in mm**