

# 1200V太阳能逆变直流滤波器EMC/EMI Filter for 1200V PV Inverter

## ■ 产品概述(Product Introduction)

- 1.减小对太阳能电池板的传导干扰，有助于整个光伏系统符合国际电磁兼容规定
- 2.优异的共模、差模噪声抑制能力
- 3.减少太阳能、风能逆变发电系统发生电磁干扰故障概率
- 4.减小高频电流，有助于防止太阳能板过早老化
- 5.100A以下滤波器两端接线使用端子，150A以上滤波器两端接线使用铜排

- 1.Reduce conducted interference to solar panels, helping the entire PV system comply with international EMC regulations
- 2.Excellent capability to suppress CM and DM noise
- 3.Reduce the probability of EMI failure in solar and wind energy inverter power generation systems
- 4.Reduce high-frequency current to help prevent premature aging of solar panels
- 5.Use solid safety connectors for rated current below 100A, and use copper busbars for rated current above 150A

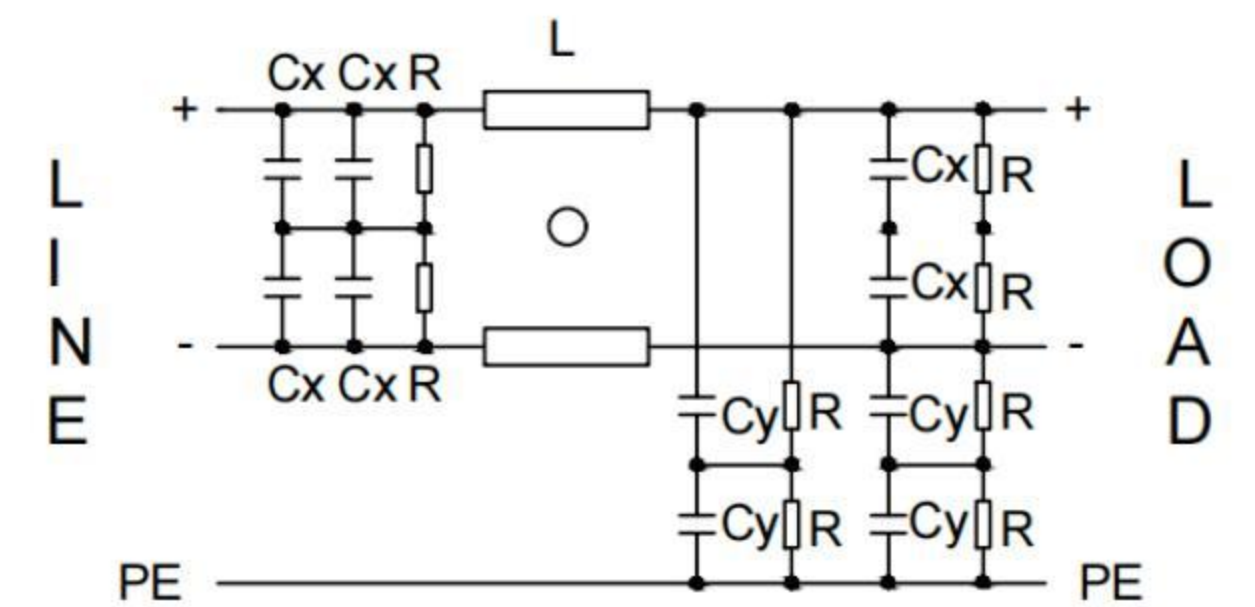
## ■ 技术规格 (Technical Specification)

- 1.最大持续使用电压：1200VDC
- 2.额定频率：DC
- 3.额定电流：25 ~ 2300A @55℃
- 4.高压试验：P-E 3600VDC/5sec P-P3000VDC/5sec
- 5.温度范围：-25 ~ +100℃ (25/100/21)
- 6.设计依据：IEC/EN60939
- 7.典型滤波频率：150kHz ~ 30MHz
- 8.防护等级：IP20(25 ~ 100A) IP00(150 ~ 2300A)

- 1.Maximum Continuous Operating Voltage: 1200VDC
- 2.Rated Frequency: DC
- 3.Rated current: 25 ~ 2300A @55℃
- 4.High Voltage Test : P-E 3600VDC/5sec P-P3000VDC/5sec
- 5.Temperature Range: -25 ~ +100℃
- 6.Design Standard: IEC/EN 60939
- 7.Typical Work Frequency: 150kHz ~ 30MHz
- 8.Protection Class: IP20(25 ~ 100A) IP00(150 ~ 2300A)



典型电路图  
Typical Circuit Diagram

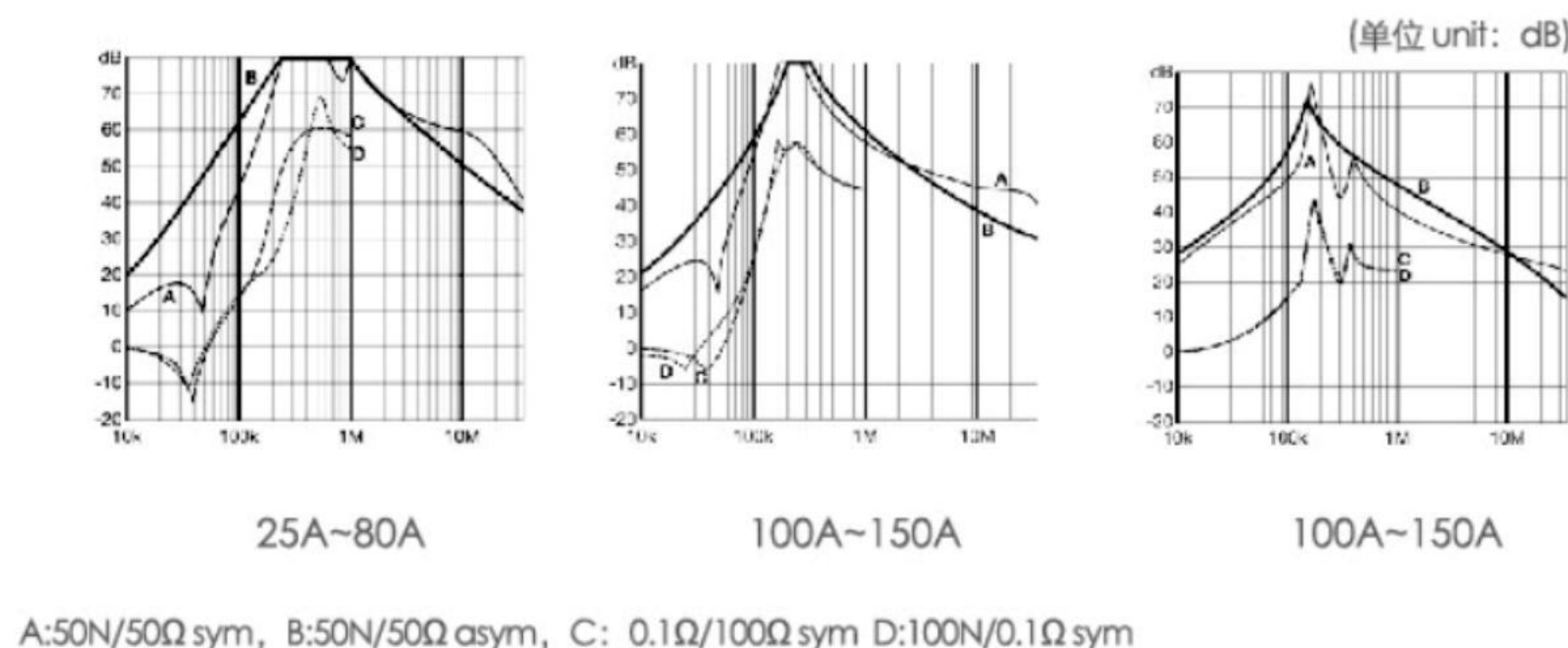


## ■ 产品应用 (Product Application)

该系列滤波器主要应用于光伏、风力发电逆变。同时也有可应用于其他直流场合，如UPS,直流电机驱动器、铁路，以及直流快速充电器。

This series of filter is mainly used in photovoltaic and wind power inverters. It can also be used in other DC applications, such as UPS, DC motor drives, railways, and DC fast chargers.

## ■ 输入滤波器插入损耗((Insertion Loss of Input Filter)

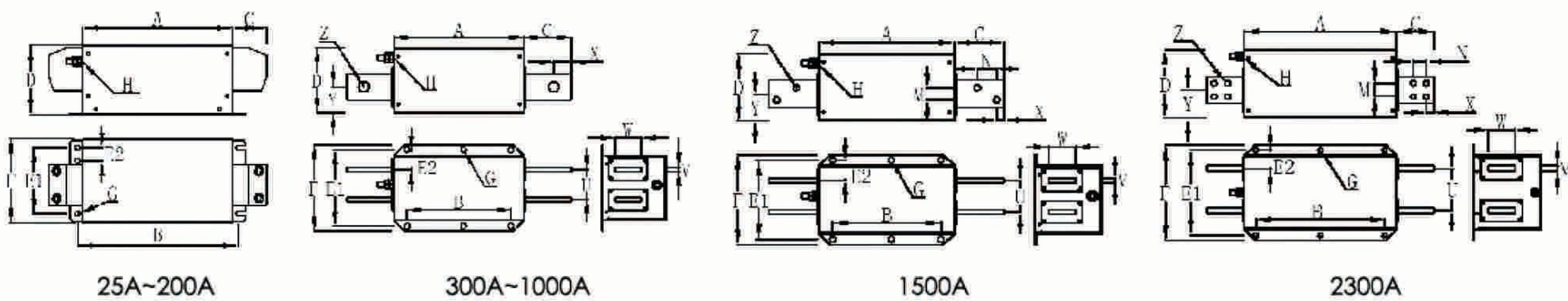


### ■ 滤波器选型表 (Filter Selection Table)

型号 Type	额定电流 Rated Current @40°C (A)	功率 Drive Power Rating (kW)	能量损耗 Power Loss @25°C/50Hz (W)	端子类型 Terminal Block Type
RFD12B25DN10	25	10	8	端子solder safety connector
RFD12B50DN35	50	20	17	端子solder safety connector
RFD12B80DN35	80	30	18	端子solder safety connector
RFD12B100DN35	100	40	22	端子solder safety connector
RFD12B150DN99	150	60	31	铜排 copper busbar
RFD12B200DN99	200	80	36	铜排 copper busbar
RFD12B300DN99	300	120	14	铜排 copper busbar
RFD12B400DN99	400	150	16	铜排copper busbar
RFD12B600DN99	600	250	29	铜排 copperv busbar
RFD12B800DN99	800	350	26	铜排 copper busbar
RFD12B1000DN99	1000	400	40	铜排 copper busbar
RFD12B1500DN99	1500	500	45	铜排 copper busbar
RFD12B2300DN99	2300	800/1000	84	铜排 copper busbar

基于典型额定900VDC输入直流电流的三相光伏逆变器的场合。大功率的中央逆变器的滤波器，可根据要求定制。Based on rated DC current of typical 3-phase PV inverters with 900VDC input. Filters with higher rated currents for large central inverters up to the MW range can be customized.

### ■ 产品尺寸图(Product Size)



代号Code 电流 Curent (A)	A (mm)	B (mm)	C (mm)	D (mm)	E E1 E2 (mm)		F (mm)	G (mm)	H (mm)	M (mm)	N (mm)	U (mm)	V (mm)	W (mm)	X (mm)	Y (mm)	Z (mm)
	25	160	178	35	65	60	15	85	5.5	M5							
50-80	170	188	38.5	80	75	15	95	5.5	M6								
100	190	208	38.5	95	100	20	125	5.5	M8								
150-200	220	238	40	115	110	20	140	5.5	M8								
300	300	240	58	110	165	42.5	190	12.5	M10			70	4	25	15	58	11
400	300	240	58	110	165	42.5	190	12.5	M10			70	6	25	15	58	11
600	300	240	58	110	165	42.5	190	12.5	M10			70	8	25	15	58	11
800-1000	300	240	65	140	175	47.5	200	12.5	M10			70	8	40	20	60	14
1500	300	240	110	150	175	47.5	200	12.5	M12	26	43	70	10	60	17	60	14
2300	400	340	100	180	225	49.5	250	12.5	M12	35	35	110	15	70	20	75	14

### ■ 滤波器输入输出端子接线范围及扭矩选择(Wire and Torque Selection for Input/Output Connector)

	-N6	-N10	-N16	-N35	-N50	25
多股软线/mm <sup>2</sup> Litz Wire	0.5-6	0.5-10	1-16	10-35	16-50	25-95
美标线规 AWG Number	AWG8-26	AWG6-24	AWG4-20	AWG2-8	AWG6-1/0	AWG44/0
推荐扭矩/N.m Recommended Torque	1.36	1.36	2.71	4.41	4.41	19.2