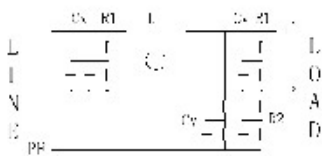




典型电路图  
typical electrical schematic



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

### ■ 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.Reduces conducted emissions towards the solar panel. Helps to meet international EMC regulations for the entire PV system
- 2.Excellent capability to reject CM and DM noise
- 3.Reduces the probability of EMI radiation off the converter system.
- 4.Helps to prevent pre-mature panel aging, because of HF leakage currents
- 5.less than 100A filters, using solid safety connector, more than 150A filters, using copper bar.

### ■ 技术参数 (Technical Data)

最大持续使用电压：1200VDC

额定频率：DC

额定电流：25A~2300A@55°C

高压试验：P-E 3600VDC/5sec P-P3000VDC/5sec

温度范围：-25°C~100°C (25/100/21)

设计依据：IEC/EN 60939

典型滤波频率：150kHz~30MHz

防护等级：IP20(25A~100A) IP00(150A~2300A)

Maximum continuous operating voltage: 1200VDC

Rated frequency: DC

Rated current: 25A~2300A@55°C

High potential test voltage: P-E 3600VDC/5sec P-P3000VDC/5sec

Temperature range: -25°C~100°C (25/100/21)

Design corresponding to: IEC/EN 60939

Typical work frequency: 150kHz~30MHz

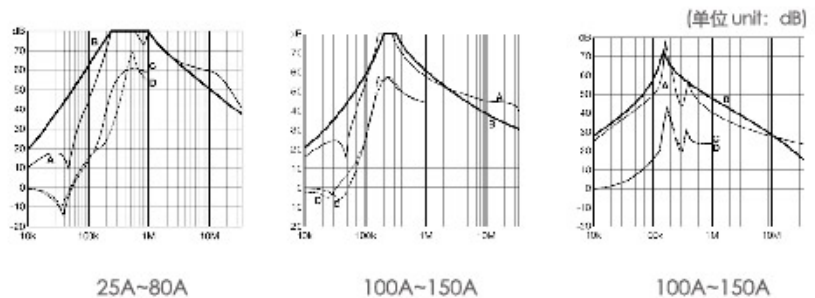
Protection class: IP20(25A~100A) IP00(150A~2300A)

### ■ 典型应用 (Typical Applications)

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 filters are primarily designed for PV and wind power inverters. However, they can potentially also be used in other DC applications within published specifications, like UPS, DC motor drives, or DC quick chargers.

### ■ 输入滤波器插入损耗 (Input Filter Attenuation)



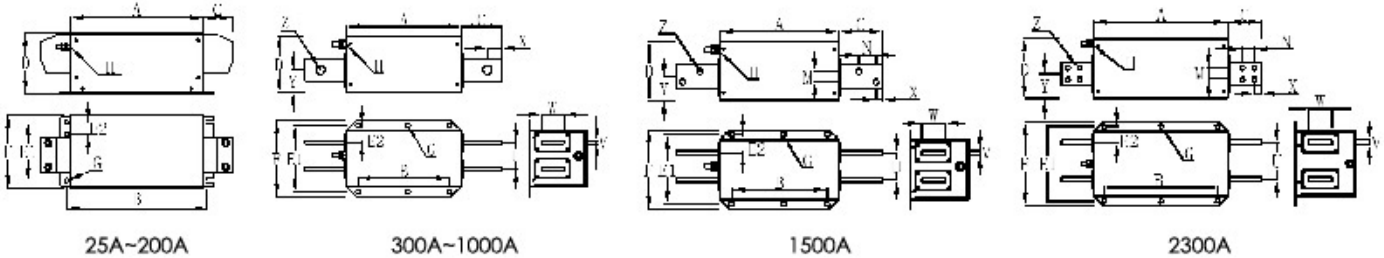
A:50N/50Ω sym, B:50N/50Ω asym, C: 0.1Ω/100Ω sym D:100N/0.1Ω sym

■ 滤波器选型表 (Filter Selection Table)

滤波器型号 Filter 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 Connector type
RFD12B25DN10	25	10	8	端子solid safety connector
RFD12B50DN35	50	20	17	端子solid safety connector
RFD12B80DN35	80	30	18	端子solid safety connector
RFD12B100DN35	100	40	22	端子solid safety connector
RFD12B150DN99	150	60	31	铜排copper bar
RFD12B200DN99	200	80	36	铜排copper bar
RFD12B300DN99	300	120	14	铜排copper bar
RFD12B400DN99	400	150	16	铜排copper bar
RFD12B600DN99	600	250	29	铜排copper bar
RFD12B800DN99	800	350	26	铜排copper bar
RFD12B1000DN99	1000	400	40	铜排copper bar
RFD12B1500DN99	1500	500	45	铜排copper bar
RFD12B2300DN99	2300	800/1000	84	铜排copper bar

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 current ratings for large central inverters up to the MW range are available upon request

■ 产品尺寸图 (Product Size)



代号 Code 电流 Current	A	B	C	D	E1	E2	F	G	H	M	N	U	V	W	X	Y	Z
	25A	160	178	35	65	60	15	85	5.5	M5							
50A~80A	170	188	38.5	80	75	15	95	5.5	M6								
100A	190	208	38.5	95	100	20	125	5.5	M8								
150A~200A	220	238	40	115	110	20	140	5.5	M8								
300A	300	240	58	110	165	42.5	190	12.5	M10			70	4	25	15	58	11
400A	300	240	58	110	165	42.5	190	12.5	M10			70	6	25	15	58	11
600A	300	240	58	110	165	42.5	190	12.5	M10			70	8	25	15	58	11
800A~1000A	300	240	65	140	175	47.5	200	12.5	M10			70	8	40	20	60	14
1500A	300	240	110	150	175	44.5	200	12.5	M12	26	43	70	10	60	17	60	14
2300A	400	340	100	180	225	49.5	250	12.5	M12	35	35	110	15	70	20	75	14

(单位 unit: mm)

■ 滤波器输入输出端子接线范围及扭矩选择 (Filter Input/output Connector Cross Sections)

	-N6	-N10	-N16	-N35	-N50	-N95
多股软线/mm <sup>2</sup> Flex 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	AWG4-4/0
推荐扭矩/N.m Recommended torque	1.36	1.36	2.71	4.41	4.41	19.2