

### EMC Filter



### FEATURES

- Ultra wide input voltage range: 85-305VAC/120-430VDC
- Working current: 3A、6A MAX
- Operating ambient temperature range: -40°C to +85°C
- Complies with EMC standards: IEC/EN61000-4 series, CISPR32/EN55032
- Meet with safety standards IEC62368

*FC-LxxM is for chassis power source connection type of EMC auxiliary device, suitable for applications that are sensitive to noise, such as analog circuits. Adding FC-LxxM to the front end of AC/DC chassis power supply can make the power supply products meet the EMC requirements of IEC/EN61000-4 series and CISPR32/EN55032 standards. When used with Mornsun AC/DC chassis power supply, the maximum input voltage of the power supply should not be greater than the maximum working voltage of this product, and the maximum input current should be less than the maximum working current of this product.*

### Selection Guide

Model*	Operating Voltage(VAC)		Operating Current(A)		Surge Performance	Matching power supply model
	Typ. (Range)	Max*	Typ.	Max		
FC-L06M	115/230 (85-305)	310	-	6.0	Line-Line ±2kV Line-PE ±4kV	LM200-20BxxR2S、 LM350-20BxxR2S、 LM450-12Bxx
FC-L03M	115/230 (85-305)	310	-	3.0	Line-Line ±2kV Line-PE ±4kV	LM200-20BxxR2S

Note: \*Input voltage should not exceed this value, otherwise permanent irreparable damage may be caused;

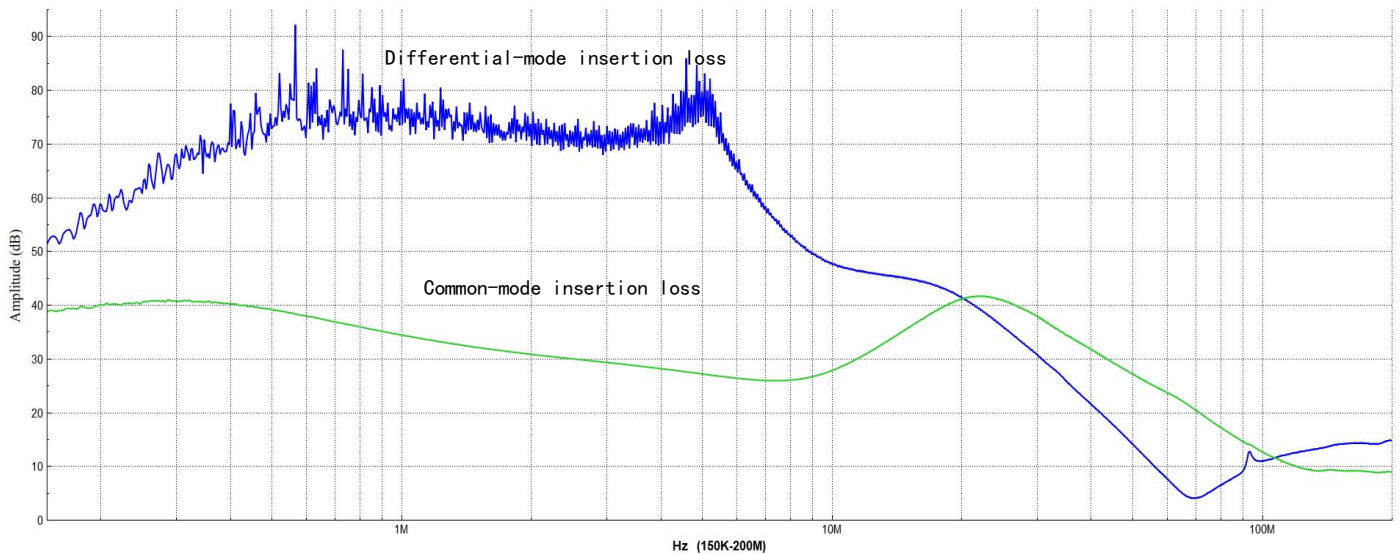
### General Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit	
Operating Temperature		-40	--	+85	°C	
Storage Temperature		-55	--	+85		
Storage Humidity	No condensation	5	--	95	%RH	
Isolation Voltage	IN(L) - ⊕	test time 1 minute, leakage current < 5mA	--	--	2500	VAC
	IN(N) - ⊕					
Insertion Loss (CM/DM)	150kHz~1MHz	30	35	-	dB	
	1MHz~10MHz	25	30	-	dB	
	10MHz~30MHz	25	30	-	dB	
Altitude	80-110kPa	≦ 5000m				
Warranty		3 years				
MTBF		MIL-HDBK-217F@25°C ≥ 1000,000 h				

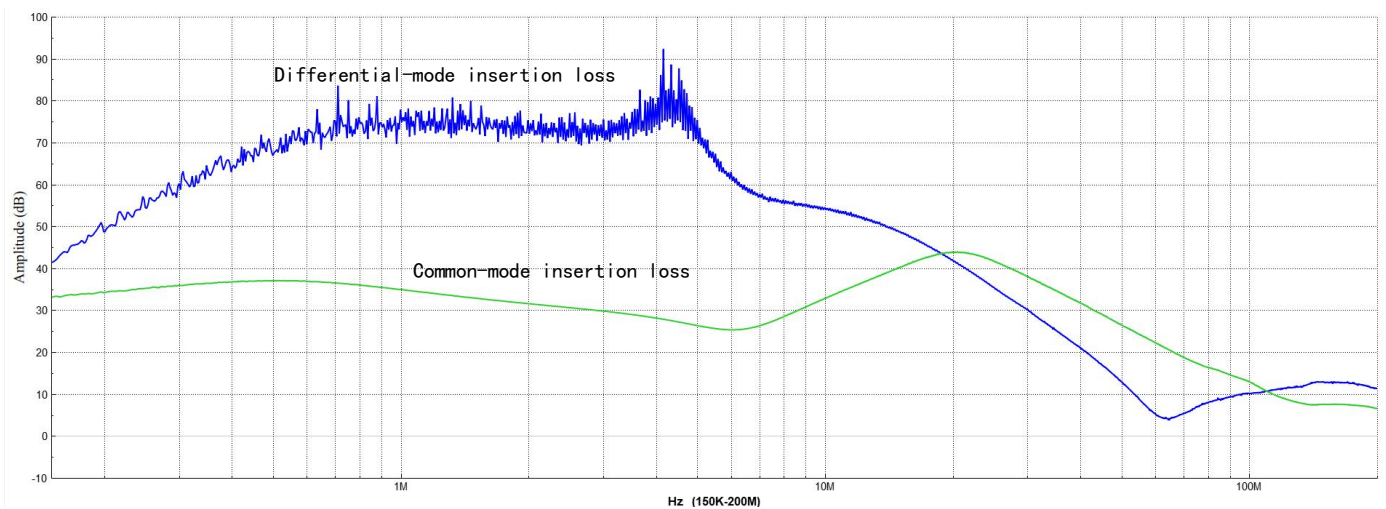
### Physical Characteristics

Case Material	Metal Case	
Dimension	84.90mm x 51.80mm x 29.50mm	
Weight	FC-L06M	168g(Typ.)
	FC-L03M	165g(Typ.)
Cooling Method	Free air convection	

### Insertion Loss Specifications(FC-L03M)



### Insertion Loss Specifications(FC-L06M)



### EMC Characteristics

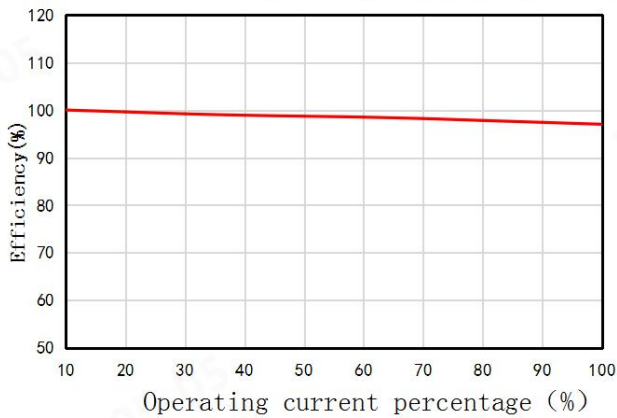
EMI	CE	CISPR32/EN55032	CLASS B	
EMS	ESD	IEC/EN61000-4-2	Contact ±6kV Air ±8kV	perf. Criteria A
	RS	IEC/EN61000-4-3	10V/m	perf. Criteria A
	EFT	IEC/EN61000-4-4	±4KV	perf. Criteria A

Surge	IEC61000-4-5	Line-Line ±2kV Line-PE ±4kV	perf. Criteria A
CS	IEC61000-4-6	10V r.m.s	perf. Criteria A
PFMF	IEC61000-4-8	50/60Hz 30A/m	perf. Criteria A

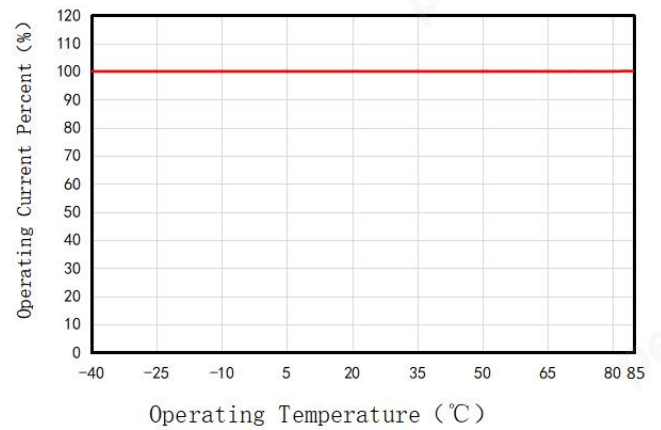
Note: Matching FC-L06M to the front end of the LM200-20BxxR2S, LM350-20BxxR2S, LM450-12Bxx, FC-L03M to the front end of the LM200-20BxxR2S series power supply can make the power module meet above EMC characteristics.

### Product Typical Curve

Efficiency VS Operating Current



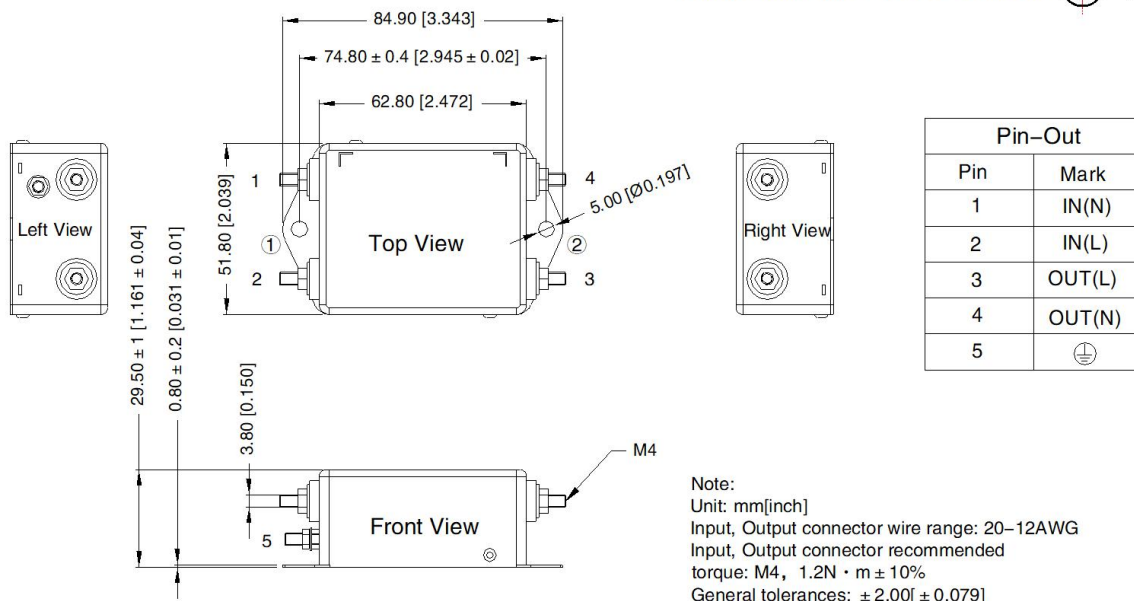
Temperature Derating Curve



Note: This product is suitable for applications using natural air cooling; for applications in closed environment please consult factory or one of our FAE.

### Dimensions and Recommended Layout

THIRD ANGLE PROJECTION



Note:

1. For additional information on Product Packaging please refer to [www.mornsun-power.com](http://www.mornsun-power.com). Packaging bag number: 58040024;
2. Unless otherwise specified, data in this datasheet should be tested under the conditions of Ta=25°C, humidity<75%RH with nominal input voltage and rated load;
3. All index testing methods in this datasheet are based on our company corporate standards;
4. We can provide product customization service, please contact our technicians directly for specific information;
5. Products are related to laws and regulations: see "Features" and "EMC";
6. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.

## Mornsun Guangzhou Science & Technology Co., Ltd.

**Address: No. 8 Nanyun 4th Road, Huangpu District, Guangzhou, China**

**Tel: 86-20-38601850**

**Fax: 86-20-38601272**

**E-mail: [info@mornsun.cn](mailto:info@mornsun.cn)**

[www.mornsun-power.com](http://www.mornsun-power.com)