

# 150 Watts Single Output IT-EMC-150PFC Series



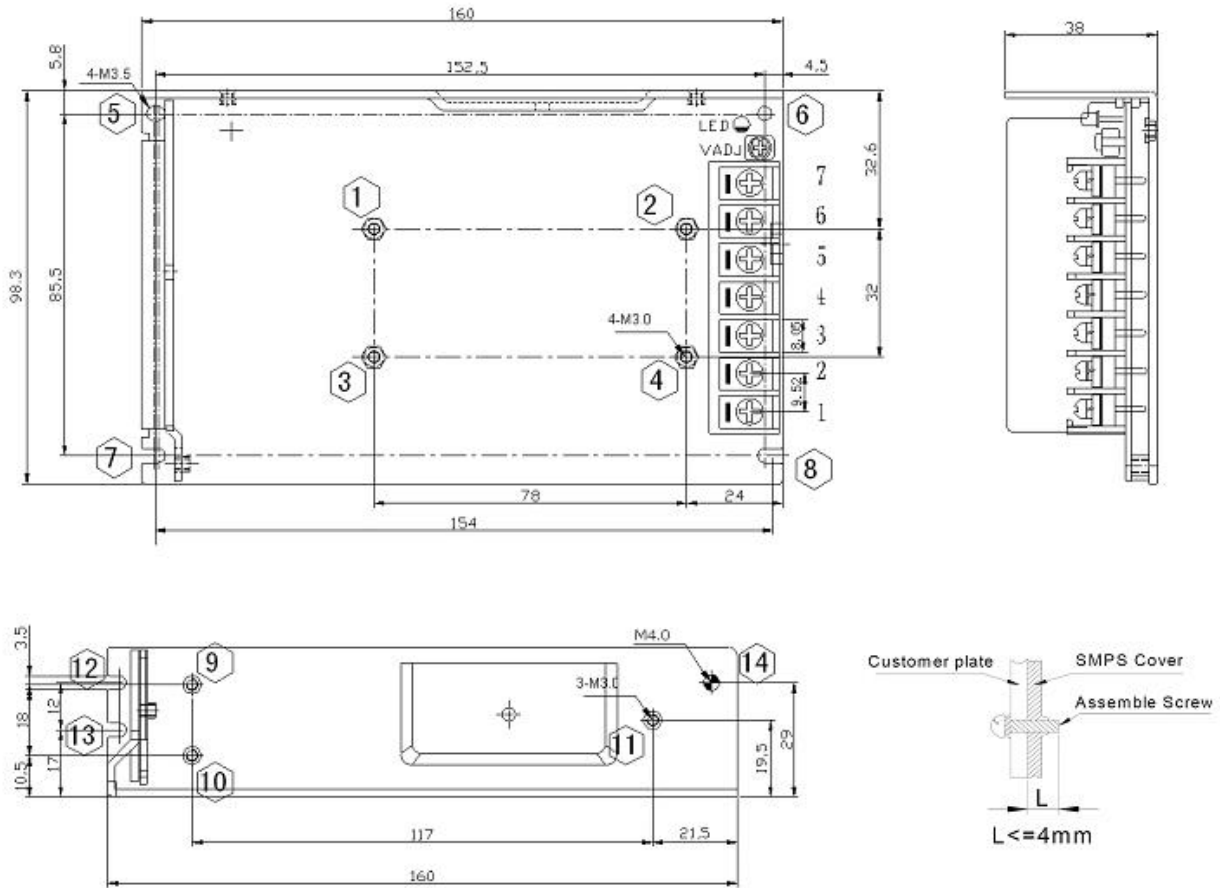
## FEATURES:

- Universal AC input range
- Built-in Active PFC function, PF>0.95
- Miniature size, high power density, high efficiency, long life and high reliability
- Withstand 300VA surge input for 5 secs.
- Output protections: OLP/OVP/SCP/OTP/OPP
- Wide operating ambient temp (-20°C~70°C)
- All using 105°C long life electrolytic capacitors.
- 100% full load burn-in test
- Easy assembling from top side
- Suitable for critical applications
- 3 years warranty

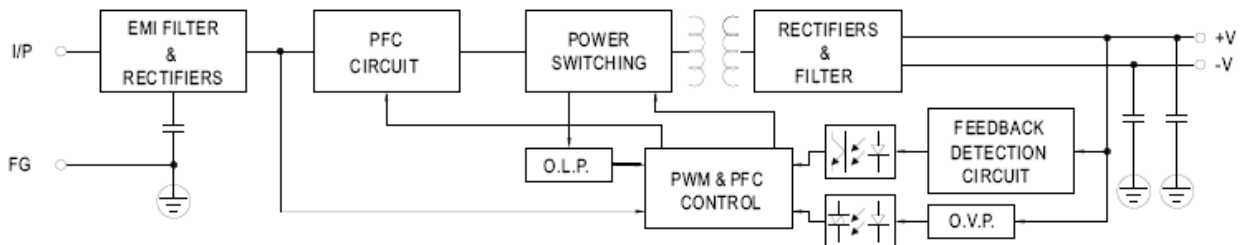
## SPECIFICATION

MODEL	IT-EMC-150PFC		-12	-15	-24	-48
OUTPUT	DC Output		12V	15V	24V	48V
	Rated Current		12.5A	10A	6.3A	3.2A
	Current Range Note 1		0~12.5A	0~10A	0~6.3A	0~3.2A
	Ripple and Noise Note 2	0~70°C	≤100mV	≤100mV	≤100mV	≤100mV
		-20~0°C	≤200mV	≤200mV	≤200mV	≤200mV
	Voltage ADJ. Range		10.8~13.2V	13.5~16.5V	21.6~26.4V	43.2~52.8V
	Voltage Accuracy		±2.0%	±2.0%	±2.0%	±2.0%
	Line Regulation		±0.5%	±0.5%	±0.5%	±0.5%
	Load Regulation		±2.0%	±2.0%	±1.0%	±1.0%
	Set-up Time		≤3S /115Vac, ≤2S /230Vac full load			
	Hold up Time		≥10mS (220Vac input, Full load)			
	Temperature Coefficient		±0.03%/°C			
Overshoot and Undershoot		<5.0%				
INPUT	Voltage Range		90Vac~264Vac, 120~370Vdc			
	Frequency Range		47Hz~63Hz			
	Power factor (typical)		PF>0.98@115Vac, PF>0.95@230Vac			
	Efficiency (Typical)	230Vac input	≥86%	≥87%	≥88%	≥88%
		115Vac input	≥82.5%	≥82.5%	≥85%	≥83.9%
	AC Current (max.)		<2 A			
	Inrush Current (Typical)		<30A/115Vac,<45A/230Vac Cold start			
Leakage Current		Input—output: ≤0.25mA Input—PG: ≤3.5mA (input 264Vac, 63Hz)				
PROTECTION	Over Load	13.125~18.75A	10.5~17A	6.93~9.45A	3.36~4.8A	
		Protection type: Hiccup mode, auto recovery				
	Over power	160~225W	160~255W	160~225W	160~225W	
		Protection type: Hiccup mode, auto recovery				
	Over Voltage	14~18V	17.8~22.5V	27~36V	52.5~72V	
Protection type: Hiccup mode, auto recovery						
Over Temperature	105°C±5°C(detect on Mosfet temperature);shut down, auto recovery after the					
Short Circuit	Long-term mode, auto recovery					
ENVIRONMENT	Operating amb. Temp. & Hum.		-20°C~70°C; 20%~90%RH No condensing (refer to the derating curve)			
	Storage Temp. & Hum.		-30°C~85°C; 10%~95%RH No condensing			
SAFETY & EMC Note 3	Safety Standards		UL60950-1 2 <sup>nd</sup> Ed; IEC 60950-1:2005(2 <sup>nd</sup> Ed) ;EN60950-1:2006			
	Withstand Voltage		Primary-Secondary: 3.0KVac/10mA .Primary-PG:1.5KVac/10mA. Secondary-PG: 0.5KVDC/10mA.			
	Isolation Resistance		10M ohms			
	EMS Emission		Compliance to EN55022 Class B			
	Harmonic Current		Compliance to EN61000-3-2, Class D			
	EMC Immunity		Compliance to EN61000-4-2,3,4,5,6,8,11; heavy industry level			
OTHERS	MTBF (MIL-HDBK-217F)		More than 200,000Hrs (25°C, Full load)			
	Dimension (L*W*H)		160×99×38mm			
	Packing		20PCS/CTN, 14KGS, 0.04CBM			
	Cooling method		Cooling by free air convection			
NOTE	1. All parameters NOT specially mentioned are measured at rated input, rated load and 25°C of ambient temperature. 2. Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF & 10uF parallel capacitor.					

## ■ Mechanical Specification Unit:mm

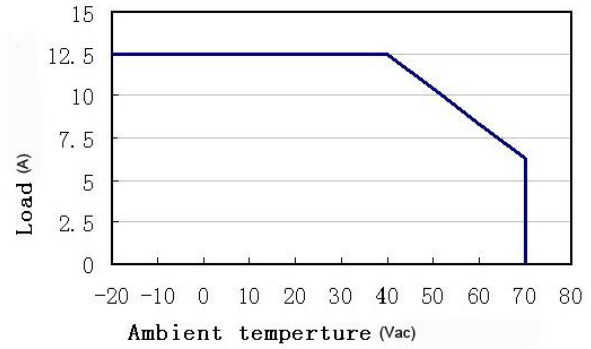
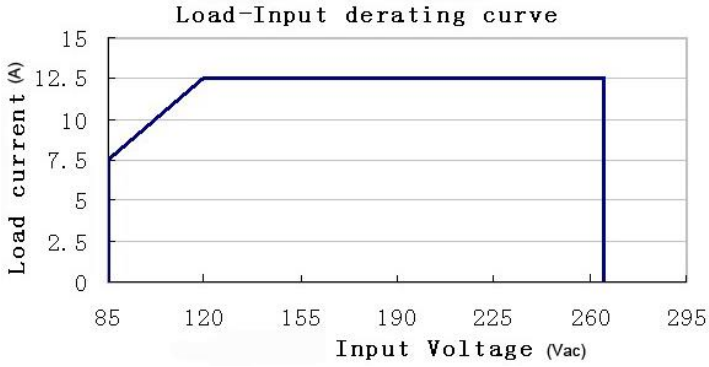


## ■ Block Diagram

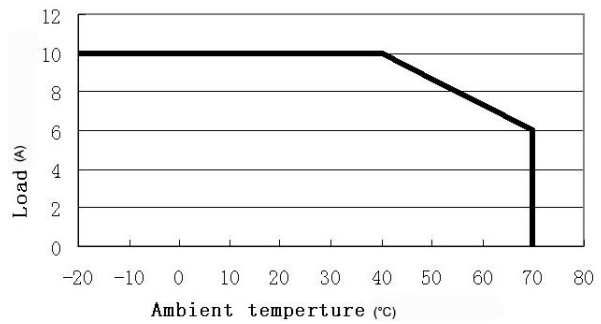
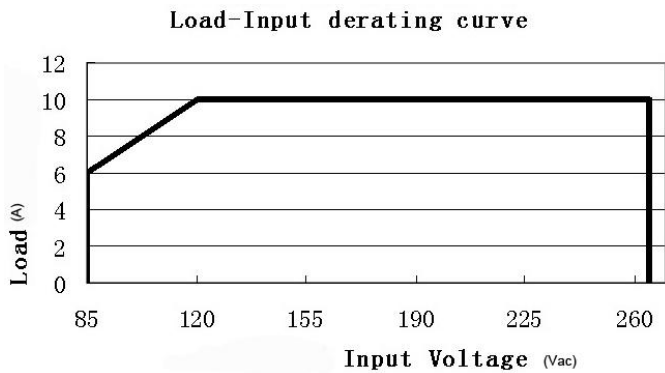


## ■ Derating Curve

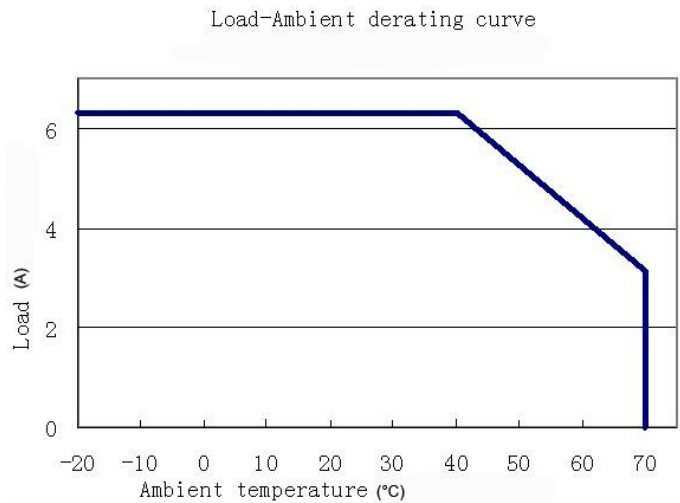
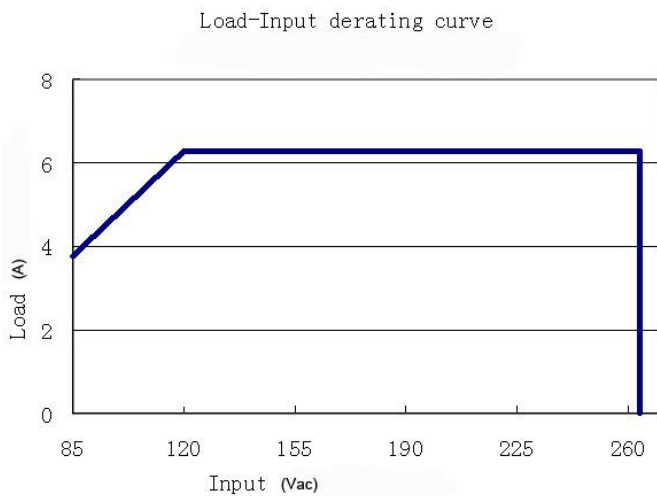
### IT-EMC-150PFC-12:



### IT-EMC-150PFC -15:

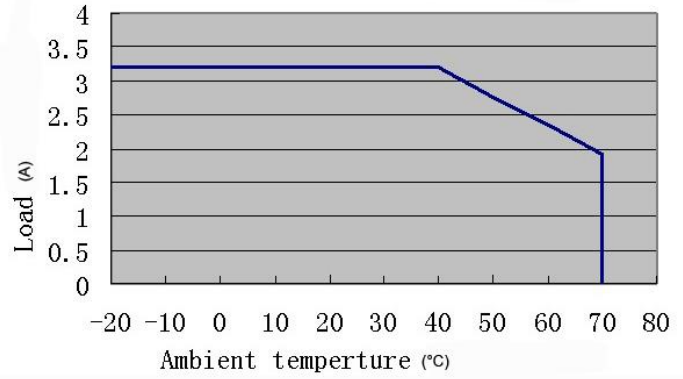
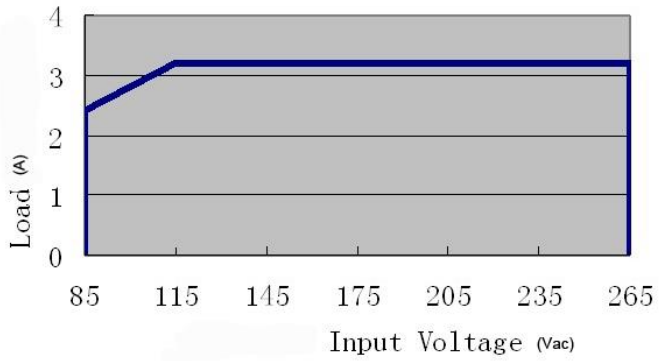


### IT-EMC-150PFC-24:



**IT-EMC-150PFC -48:**

Load-Input derating curve



All products, product specifications and data are subject to change without notice.