



**Features:**

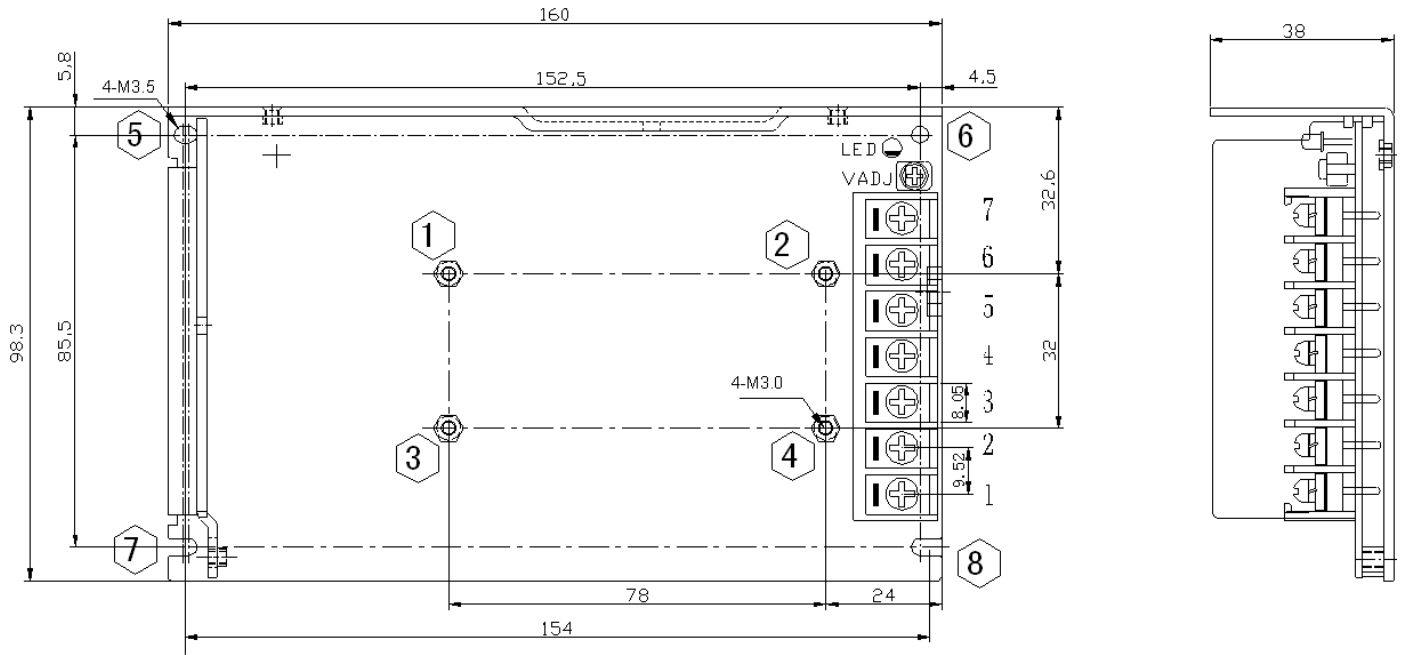
- Universal AC input range
- Built-in Active PFC function, PF>0.95
- Miniature size, high power density, high efficiency, long life and high reliability
- Withstand 300VA surge input for 5 secs.
- Output protections: OLP/OVP/SCP/OTP/OPP
- Wide operating ambient temp (-20°C ~70°C)
- All using 105°C long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

**SPECIFICATION**

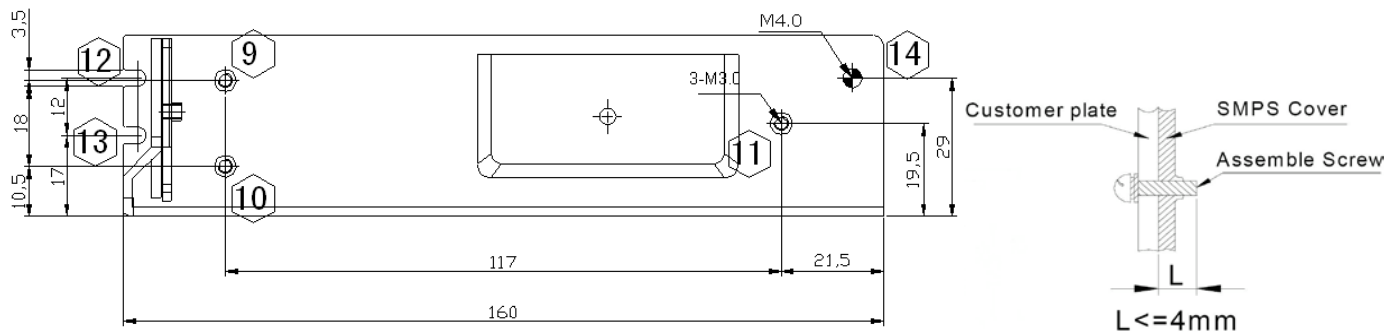
MODEL		MFGKF-150-12	MFGKF-150-15	MFGKF-150-24	MFGKF-150-48	
OUTPUT	DC Output	12V	15V	24V	48V	
	Rated Current	12.5A	10A	6.3A	3.2A	
	Current Range	Note 1 0~12.5A	0~10A	0~6.3A	0~3.2A	
	Ripple and Noise	Note 2	0~70°C	≤100mV	≤100mV	≤100mV
			-20~0°C	≤200mV	≤200mV	≤200mV
	Voltage ADJ. Range	10.8~13.2V	13.5~16.5V	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				
	Hold up Time	≥10mS (220Vac input, Full load)				
Temperature Coefficient	±0.03%/°C					
Overshoot and Undershoot	<5.0%					
INPUT	Voltage Range	90Vac~264Vac				
	Frequency Range	47Hz~63Hz				
	Power factor (typical)	PF > 0.98@115Vac, PF > 0.95@230Vac				
	Efficiency (Typical) 230Vac input	≥86%	≥87%	≥87%	≥88%	
	AC Current (max.)	< 2 A				
	Inrush Current (Typical)	< 30A/115Vac, < 45A/230Vac Cold start				
	Leakage Current	Input—output: ≤0.25mA Input—PG: ≤3.5mA				
PROTECTION	Over Load	105%~150% of rated output current, hiccup mode, auto recovery				
	Over power	105%~150% of rated output current, hiccup mode, auto recovery				
	Over Voltage	115%~150% of rated output voltage, hiccup mode, auto recovery				
	Over Temperature	105°C ±5°C (detect on Mosfet temperature); shut down, auto recovery after the temperature goes down to 60°C				
	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	100M 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)	160×98.3×38mm				
	Packing	20PCS/CTN, 14KGS, 0.04CBM				
	Cooling method	Cooling by free air convection				
NOTE	<ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at rated input, rated load and 25°C of ambient temperature.</li> <li>Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF &amp; 10uF parallel capacitor.</li> <li>The SPS is considered a component which will be installed into final equipment. The equipment must be re-confirmed that it still meets EMC directives.</li> </ol>					

**Mechanical Specification**

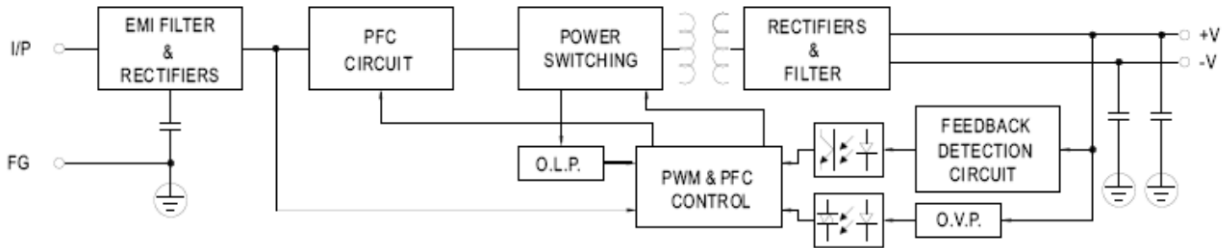
Unit: mm (Tolerance is  $\pm 1$ mm)



Pin1---Pin7: L N GND -V -V +V +V



**Block Diagram**



**Derating Curve**

