

# 320 Watt Embedded Power Supply

## Features

- Universal AC input
- Built-in active PFC, PF > 0.95
- Withstand 300Vac surge input for 5 sec
- High efficiency, long life and high reliability
- Output protection: SCP/OLP/OPP
- Wide operating ambient temperature (-25°C ~ 70°C)
- Operating altitude up to 5000m
- PCB both sides with conformal coating
- All using 105°C long life electrolytic capacitors
- 100% full load burn-in test
- Built-in cooling fan speed control
- 3 year warranty



## Specifications

GKF-320-5II

GKF-320-12II

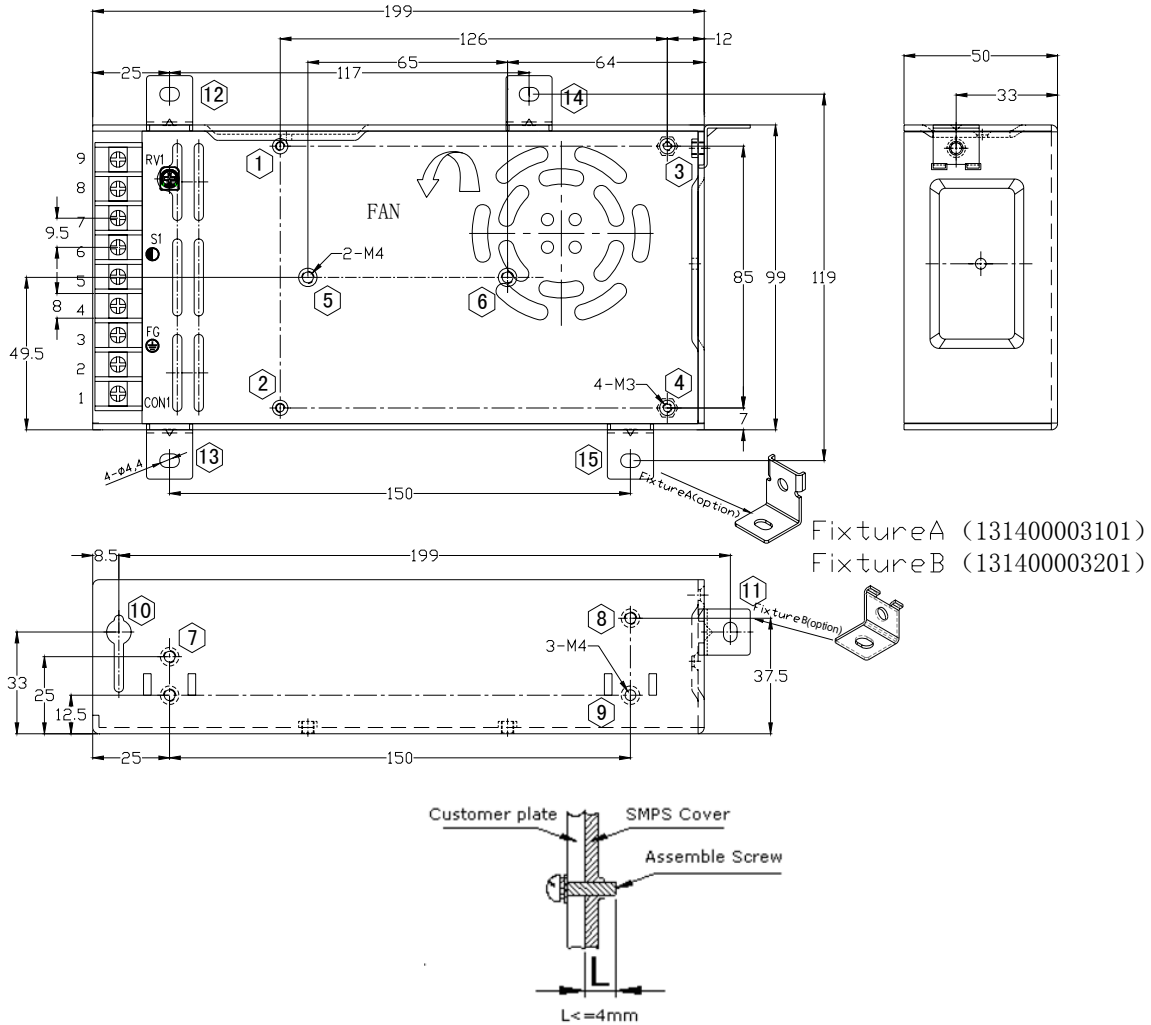
GKF-320-24II

GKF-320-48II

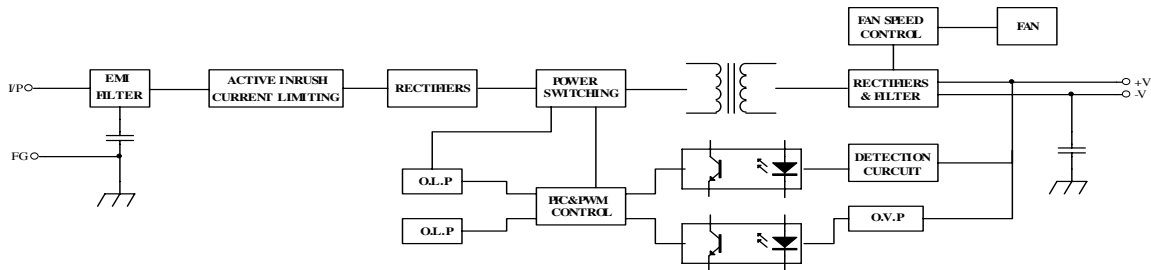
		GKF-320-5II	GKF-320-12II	GKF-320-24II	GKF-320-48II
OUTPUT	DC Output	5.0V	12.0V	24.0V	48.0V
	Rated Current	55A	25A	13A	6.7A
	Current Range (NOTE 1)	0 ~ 55A	0 ~ 25A	0 ~ 13A	0 ~ 6.7A
	Ripple and Noise (NOTE 2)	< 150mV	< 150mV	< 200mV	< 200mV
	Voltage ADJ. Range	-5% ~ +10% of rated output voltage			
	Voltage Accuracy	±1.0%			
	Line Regulation	±0.5%			
	Load Regulation	±1.0%			
	Set-up Time	≤ 2S (230Vac input, Full load)			
	Hold up Time	≥ 10mS (230Vac input, Full load)			
	Temperature Coefficient	±0.03%/°C			
	Overshoot and Undershoot	< 5.0%			
INPUT	Voltage Range	85Vac ~ 264Vac, 120Vdc ~ 370Vdc			
	Frequency Range	47Hz ~ 63Hz			
	Power Factor (Typical)	PF > 0.98/115VAC		PF > 0.95/230VAC	
	Efficiency (Typical)	79%	84.5%	87%	87.5%
	AC Current (Max.)	< 4.5A			
	Inrush Current (Typical)	< 50A@230Vac < 30A@115Vac Cold Start			
	Leakage Current	Input – output: < 0.25mA Input – PG: < 1.0mA			
PROTECTION	Over Load	105% ~ 150% of rated output current, hiccup mode, auto recovery			
	Over Power	105% ~ 150% of rated output voltage, hiccup mode, auto recovery			
	Short Circuit	Long-term mode, auto recovery			
ENVIRONMENT	Operating amb. Temp. & Hum.	-25°C ~ 70°C; 20% ~ 90%RH		No Condensing (refer to the derating curve)	
	Vibration	10 ~ 500Hz, 2G 10min/1cycle, period for 60 min. each along X, Y, Z axes			
	Storage Temp. & Hum.	-40°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			
	EMI Conduction & Radiation	Compliance to EN55022, Class B			
	Harmonic Current	Compliance to EN61000-3-2, Class D			
	EMS 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)	199 x 99 x 50 mm			
	Packing	12PCS/CTN, 11.6KGS, 0.04CBM			
	Cooling Method	Cooling by forced air (built-in DC fan)			
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 & 47uF parallel capacitor 3. 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				

## Mechanical Specification

unit: mm



## Block Diagram



Derating Curve

