

AC/DC 200W Enclosed Switching Power Supply

EFO-PS300UP55L-5

FEATURES AND BENEFITS

- AC input: 90VAC ~ 264VAC
- Output protections: OPP/OLP/SCP /OTP
- No fan suitable for quiet environment
- Wide operating ambient temperature (-40°C~65°C)
- 100% full load burn-in test
- High Efficiency, and High Reliability
- 3 years warranty

PRODUCT SPECIFICATIONS

Part No	EFO-PS300UP55L-5
Output Power (W)	300
Output Voltage Adjustable Range (V)	4.6-5.0
Nominal Output Voltage And Current (Vo/Io)	5V/60A
Efficiency At 230VAC (%) Typ.	90
Dimensions	188.00 x 55.00 x 30.00 mm
Weight	415g
Case Material	Metal (AL5052, SGCC)
Cooling Method	Free air flow (PSU with fixed to customer system heat-sink)
Certification	UL/CE

INPUT SPECIFICATIONS

ITEM	OPERATING CONDITIONS		MIN	TYPE	MAX	UNIT
INPUT VOLTAGE RANGE	AC input		90	---	264	VAC
INPUT VOLTAGE FREQUENCY			47	---	63	Hz
INPUT CURRENT			---	---	5	A
INRUSH CURRENT	220VAC	Cold start	---	50	---	
POWER FACTOR	220VAC	Full load	0.96	---	---	---
EFFICIENCY	230VAC	Full Load	---	90	---	---



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OUTPUT SPECIFICATIONS

ITEM	OPERATING CONDITIONS		MIN	TYPE	MAX	UNIT
DC OUTPUT			---	5	---	V
OUTPUT PRE SET VOLTAGE	220VAC input, load 0A		5.05	---	5.1	
RATED CURRENT	PSU with fixed to customer system aluminum heat-sink : 400mm*400mm*3mm		---	60	---	A
CURRENT RANGE NOTE 1			0	---	60	
OUTPUT VOLTAGE ACCURACY			---	±3.0	---	%
LINE REGULATION			---	±0.5	---	%
LOAD REGULATION			---	±3	---	%
OVERSHOOT AND UNDERSHOOT			---	---	5	mV
RIPPLE & NOISE NOTE 2	0~65°C		---	---	150	mV
TEMPERATURE COEFFICIENT			---	±0.03	---	%/°C
SET-UP TIME	220VAC	Full Load	---	---	2	S
HOLD-UP TIME	220VAC	input voltage shut down at 90° phase Load 48A	5	---	---	ms
OUTPUT VOLTAGE ADJUSTABLE			4.6	---	5	V
OVER POWER			325W~450W, hiccup mode, auto recovery			
OVER-CURRENT	110VAC ~ 264VAC		65A~90A, hiccup mode, auto recovery			
OVER-VOLTAGE			4.5V~6.5V, Hiccup mode, auto recovery			
SHORTED CIRCUIT			Long-term mode, auto recovery			
OVER TEMPERATURE			OTP sensor:105°C±5°C(detect on inner ambient);shut down, auto recovery after the sensor's temperature goes down 80°C±10°C			

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 0.1uF & 100uF parallel capacitor.



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GENERAL SPECIFICATIONS

ITEM	OPERATING CONDITIONS		MIN	TYPE	MAX	UNIT
WITHSTAND VOLTAGE	PRIMARY-SECONDARY	≤10mA	---	3.0K	---	VAC
	PRIMARY-PG		----	1.5K	---	VAC
	SECONDARY-PG		---	0.5K	---	VDC
LEAKAGE CURRENT	INPUT-PG	264VAC Input	---	---	3.5	mA
	INPUT - OUTPUT		---	---	0.25	mA
ISOLATION RESISTANCE		10MΩ				
OPERATING TEMPERATURE		No condensing (refer to the derating curve)	-40	---	+65	°C
STORAGE TEMPERATURE		No condensing (refer to the derating curve)	-40	---	+85	°C
OPERATING HUMIDITY		Non-condensing	20	---	90	%RH
STORAGE HUMIDITY		Non-condensing	10	---	95	%RH
SAFETY STANDARD		UL/CE EN 62368-1				
MTBF		MIL-HDBK-217F	25°C, Full load		>100,000 Hrs	

ELECTROMAGNETIC COMPATIBILITY (EMC)

EMISSIONS	EMC Test		Standard
	Test	Level	
EMISSIONS	ESD	EN61000-4-2	EN55024, light industry level ,criteria B
	RS	EN61000-4-3	
	EFT	EN61000-4-4	
	Surge	EN61000-4-5	
	CS	EN61000-4-6	
	PFMF	EN61000-4-8	
	EMI Conduction & Radiation	EN55022, EN55024	
Harmonic current	EN61000-3-2	CLASS D	
Voltage dip, short interruption and voltage variation	EN61000-4-11	Criteria C	

Note: *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.

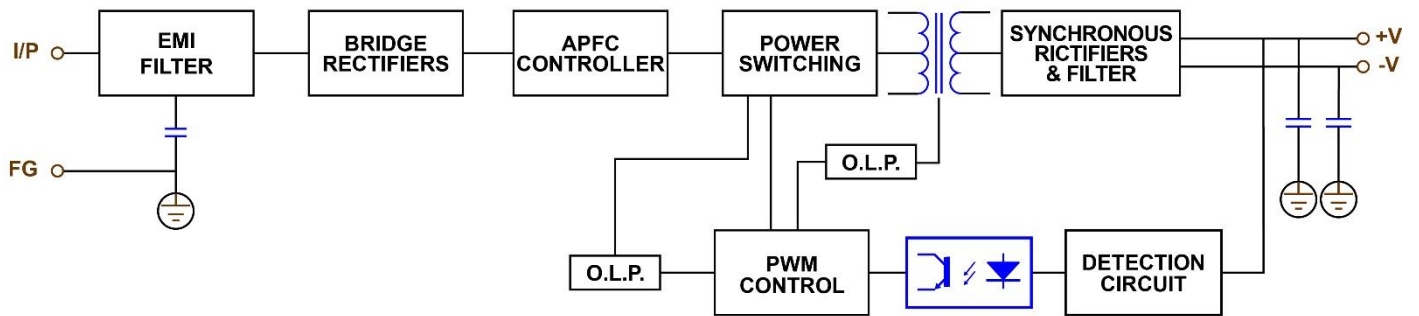
If the EMC performance needed to be improved, please add EMC filter.



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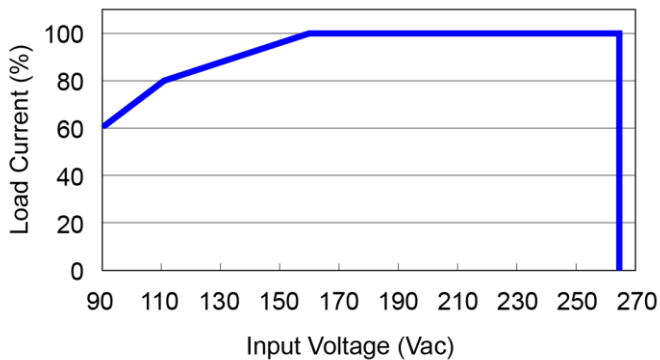
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BLOCK DIAGRAM

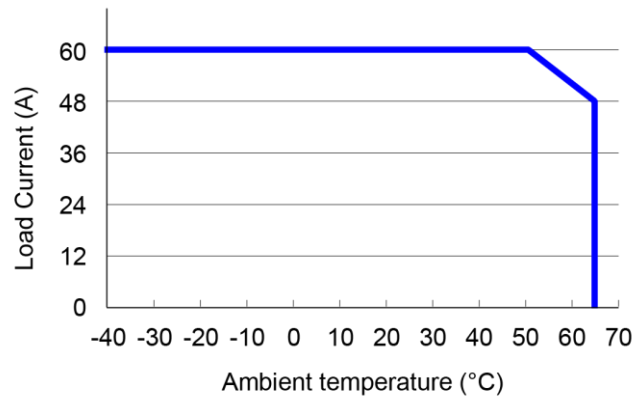


PRODUCT CHARACTERISTIC CURVE

Load-Input derating curve



Load-Ambient derating curve



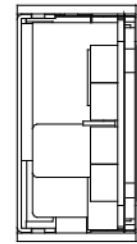
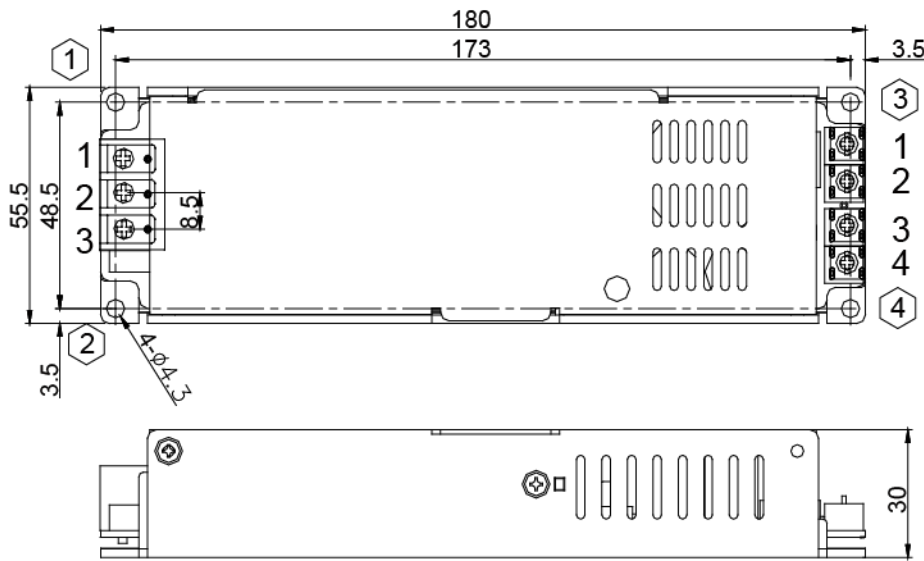
Note: PSU with fixed to aluminum heat-shink of 400*400*3mm



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MECHANICAL SPECIFICATION



Mounting Position	Mounting Type	Mounting Position Number	Screw Type	Lmax	Mounting Torque (max)
Bottom Mounting	Fixing by screws	①—④	M3	4mm	6.5Kgf.cm (max)

Instructions:

Remark: For safety purpose, the screw inside the PSU housing should not exceed 4mm. (Refer the drawing on right side).

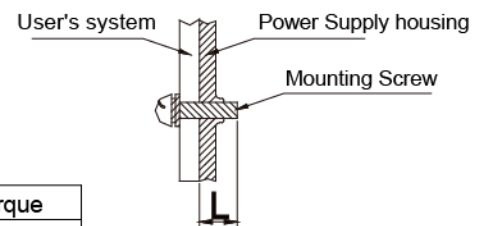
1. Dimension unit: mm.
2. The unmarked to larence of overall dimension is ± 1 mm.
3. Choose the best mounting type of the module.

1. Instructions for the AC input connectors

Part number	Function	Connector's Type	Cable type	Max. torque
1	\oplus	85 Terminal Row	22-12AWG	7.5Kgf.cm (max)
2	N			
3	L			

2. Instructions for DC output connectors

Part number	Function	Connector's Type	Cable type	Max. torque
1/2	+V	Connectors terminal	26-14AWG	7.5Kgf.cm (max)
3/4	-V			



drawing