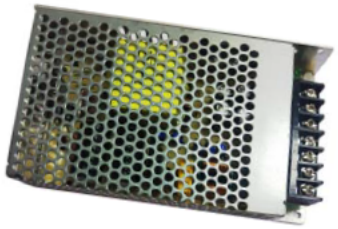
Patron
Passive Elektronic

PPC/LR-150-XS series



DESCRIPTION: **150W Wide input AC/DC switching power supply**

The rated output power of PPC/LR-150-XS series is 150W, input voltage range 90-264VAC, output voltage : 12V,15V,24V,36V,48V,High reliability, precision,effificency , ultra-small size, no external heat sink required, stable output voltage and etc, with short circuit, over-load,over-voltage protection, Widely used in telecommunications, industrial control, instrument, data acquisition, signal control , New Energy, Security,and other electronic systems.

FEATURES

Universal AC input 90VAC-264VAC	100% full load burn-in test	short circuit, over-load,over-voltage protection
Operating temperature -30℃~70℃	RoHS complaint	Low standby power consumption<0.5W
All using 105℃ long-life electrolytic capacitors	High reliability,effificency	Full compliance with safety regulation,EMC design

SELECTION GUIDE

Part Number	Input		Output					Efficiency @25℃, (Typ) %
	Volatge (VAC)		Voltage (VDC)	Pre-set voltage @25℃(V)	Rated current (A)	Current range(A)	Rated power(W)	
	Rated	Range values						
PPC/LR-150-12S	220	90-264	12	12.00-12.10	12.5	0-12.5	150	85
PPC/LR-150-15S	220	90-264	15	15.00-15.10	10	0-10	150	87
PPC/LR-150-24S	220	90-264	24	24.00-24.10	6.25	0-6.25	150	89
PPC/LR-150-36S	220	90-264	36	36.00-36.10	4.17	0-4.17	150	89
PPC/LR-150-48S	220	90-264	48	48.00-48.10	3.125	0-3.125	150	90

All specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified.

OUTPUT CHARACTERISTICS

Conditions	Conditions	Parameter
Ripple and noise,Ta is ambient , @25℃	12V 15V output voltage	≤150mVp-p
	24V, 36V,48V output voltage	≤200mVp-p
Output adjustment range @25℃	12V output voltage	10.8V-13.2V
	15V output voltage	13.5V~16.5V
	24V output voltage	21.6V-26.4V
	36V output voltage	32.4V~39.6V
	48V output voltage	43.2V-52.8V
Voltage regulation accuracy@-30~70℃	±1%	
Line regulation@-30~70℃	±0.5%	
Load regulation@-30~70℃	±0.5%	
Temp. coefficient@-25~70℃	±0.03%/℃	
Set-up time@25℃	≤600mS / 30mS (230Vac/115Vac input, full load)	
Hold-up time@25℃	≥20mS(230Vac input, Full load)	
Overshoot&Undershoot@-30~70℃	<5.0%	

INPUT CHARACTERISTICS

Conditions	Parameter
Input voltage range	90Vac~264Vac 120-370VDC
Max. input voltage	300Vac input,no damage, dwell time 5S
Rated input voltage range	100Vac~240Vac 120-370VDC
Frequency Range	47Hz~63Hz

INPUT CHARACTERISTICS	
Set-up voltage@-30~70℃	90Vac（refer to the derating curve）
Input current@25℃	≤3A@115Vac / ≤1.7A@230Vac
Inrush current @25℃	≤60A@220Vac Cold start
Standby power@25℃	<0.5W

PROTECTION @-30～70℃	
Conditions	Parameter
Over-power	120%~180% of rated power, Hiccup mode, auto recovery
Over-voltage	120%~150% of rated output voltage, constant voltage, auto recovery
Over-load	120%~180% of rated current, Hiccup mode, auto recovery
Output short circuit protection	Long-term mode, Auto recovery

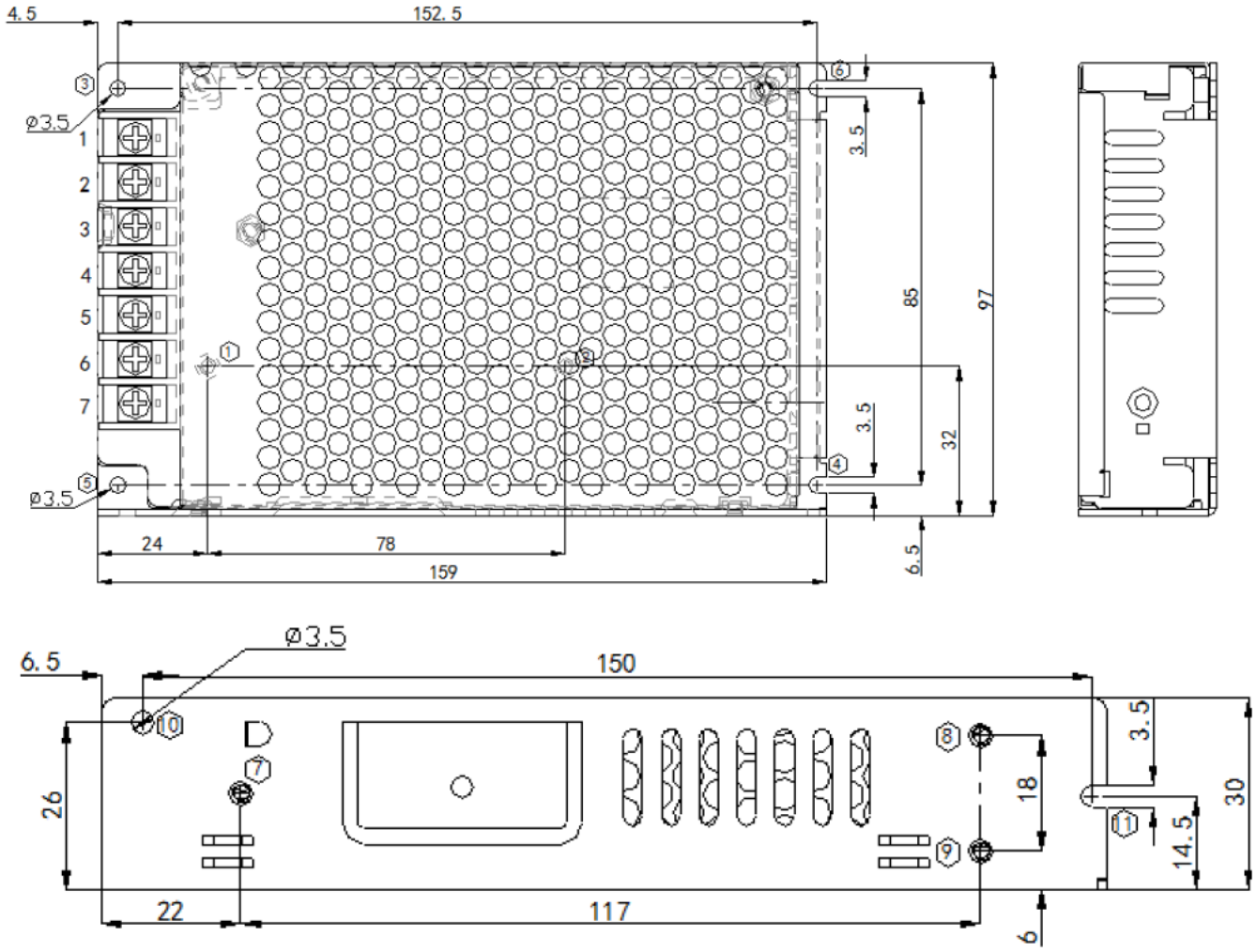
ENVIRONMENT CHARACTERISTICS	
Conditions	Parameter
Operating amb. Temp.&Humi.	-30℃~70℃; 20%~90%RH No condensing （refer to the derating curve）
Storage Temp. & Humi.	-40℃~85℃; 10%~95%RH No condensing
Vibration	10 ~ 500Hz, 5G 10min./1cycle, period for60min. each along X,Y, Z axes
Pulse	20G/11mS pulse ,3 times at each X,Y,Z axes
Altitude	5000m

SAFETY&EMC STANDARDS @25℃	
Conditions	Parameter
Safety Standards	EN60950-1
Withstand Voltage	I/P-O/P:3.0KVac/10mA; I/P-FG:1.5KVac/10mA; O/P-FG:0.5KVdc/10mA test time:1min.
Grounding test	Test condition：40A / 2min.；Grounding resistance：<0.1 ohms.
Leakage Current	I/P-Grounding≤0.75mA； I/P-O/P ≤0.25mA 240Vac input 63Hz
Isolation resistance	I/P-O/P: 100M ohms; I/P-FG : 100M ohms; O/P-FG : 100M ohms
EMC emission	EN55032 Class B/FCC Part15 Class B
EMC immunity	EN61000-4-2,3,4,5,6,8,11

OTHERS	
Conditions	Parameter
Cooling method	Cooling by free air flow
Dimension (L*W*H)	159*97*30mm
Net Weight	0.38kg

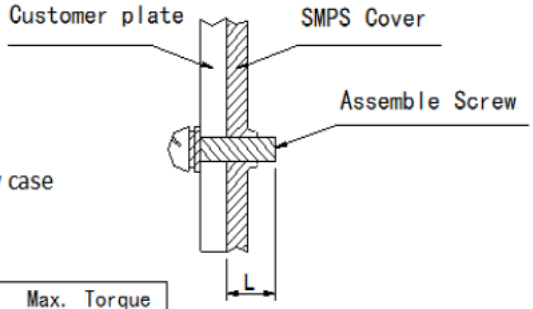
RELIABIILITY CHARACTERISTICS	
Conditions	Parameter
MTBF	200,000Hrs AT 25℃, MIL-217 Method 2 Components Stress Method

MECHANICAL DIMENSIONS



Mounting Position	Mounting Type	Mounting Position No.	Screw Type	Lmax	Mounting Torque(max)
Bottom Mounting	Fixing by screws	①—②	M3	4.0mm	6.5Kgf.cm (max)
		③—④	M3	4.0mm	
		⑤—⑥	M3	4.0mm	
Side Mounting	Fixing by screws	⑦—⑧	M3	4.0mm	6.5Kgf.cm (max)
		⑨—⑩	M3	4.0mm	

1, Dimensional Unit: mm
2, Unmarked Tolerance is GB/T 1804-m
3, Choose the best installation method.



Remarks: 1. For safety purpose, the length of screw inside the power supply case shall comply with the above table (refer the right drawing)

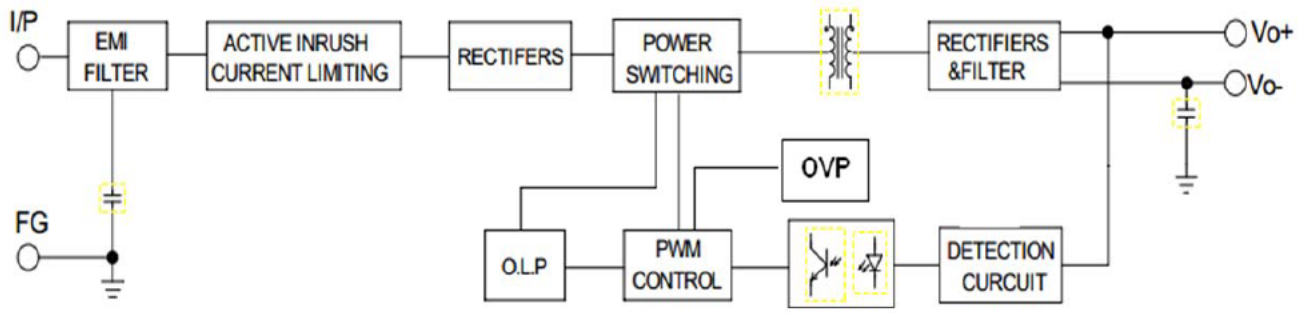
1, Instruction of the AC Input Connectors

Part number	Function	Connector	Requirement for Cables	Max. Torque
1	AC(L)	95 Terminal Block	22-12AWG	12Kgf.cm (max)
2	AC(N)			
3	⏚			

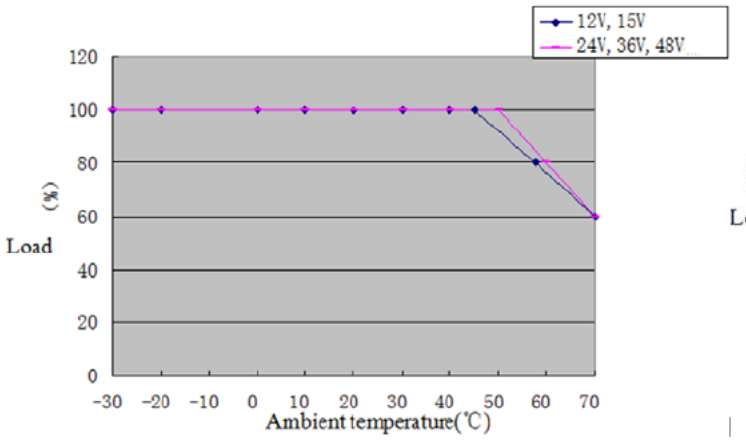
2, Instruction of the DC Output Connectors

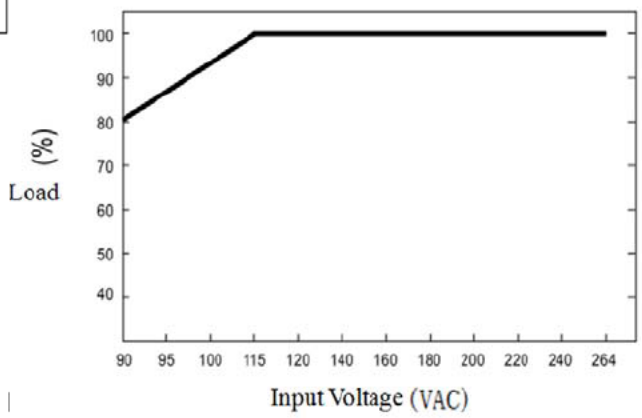
Part number	Function	Connector	Requirement for Cables	Max. Torque
4/5	V-	95 Terminal Block	22-12AWG	12Kgf.cm (max)
6/7	V+			

BLOCK DIAGRAM



DERATING CURVE





MODEL SELECTION

PP C / LR -150 – X S

- S: Single ouput; D: Dual output
- Output voltage
- Delimiter
- Rated output power
- Delimiter
- Series
- Delimiter
- Type
- Brand PATRON