



**DESCRIPTION :** 348-350.4W Wide input AC/DC switching power supply

The rated output power of TPC/NE-350-XS series is 348-350.4W, input voltage range : 90~132Vac/180~264Vac,output voltage : 12V,15V,27V,36V,48V, High reliability, precision,efficiency , with short circuit, over-load protection, Widely used in telecommunications, industrial control, instrument, data acquisition, signal control , New Energy, Security,and other electronic systems.

**FEATURES**

AC input selectable by switch : 90~132/180~264 VAC	100% full load burn-in test	short circuit, over-load protection
Operating temperature: -20℃~70℃	RoHS complaint	Suitable for critical applications
All using 105℃ long-life electrolytic capacitors	High reliability,efficiency	/

**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						
TPC/NE-350-12S	220	90-264	12	12.00-12.10	29.0	0-29.0	348	>82.5
TPC/NE-350-15S	220	90-264	15	15.00-15.10	23.2	0-23.2	348	>84.0
TPC/NE-350-27S	220	90-264	27	27.00-27.10	13.0	0-13.0	351	>85.5
TPC/NE-350-36S	220	90-264	36	36.00-36.10	9.7	0-9.7	349.2	>86.0
TPC/NE-350-48S	220	90-264	48	48.00-48.10	7.3	0-7.3	350.4	>87.0

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

**OUTPUT CHARACTERISTICS**

Conditions	Conditions	Parameter
Ripple and noise,Ta is ambient @0~70℃	12V 15V output voltage	≤150mVp-p
	27V, 36V,48V output voltage	≤200mVp-p
Ripple and noise,Ta is ambient @-20~0℃	12V,36V,48V output voltage	≤300mVp-p
	15V output voltage	≤200mVp-p
	27V output voltage	≤320mVp-p
Output adjustment range @25℃	12V output voltage	10V-13.5V
	15V output voltage	13.5V~18V
	27V output voltage	26V-32V
	36V output voltage	32V~40V
	48V output voltage	41V-56V
Voltage regulation accuracy@-20~70℃	±1%	
Line regulation@-20~70℃	±0.5%	
Load regulation@-20~70℃	±1%	
Temp. coefficient@-20~70℃	±0.03%/℃	
Set-up time@25℃	≤2.0S / 50mS (115Vac input, full load) , ≤1.0S / 50mS ( 230Vac input, full load )	
Hold-up time@25℃	≥20mS(230Vac input, Full load) ≥10mS(115Vac input, Full load)	
Overshoot&Undershoot@-20~70℃	<5.0%	

**INPUT CHARACTERISTICS**

Conditions	Parameter
Input voltage range	90~132Vac/180~264Vac
Rated input voltage range	100~120Vac/200~240Vac selectable by switch

**INPUT CHARACTERISTICS**

Frequency Range	47Hz~63Hz
Set-up voltage@-20~70℃	90Vac/180 Vac selectable by switch (refer to the derating curve)
Input current@25℃	7A@115Vac / 4A@230Vac
Inrush current @25℃	≤40A@115Vac Cold start ≤60A@230Vac Cold start

**PROTECTION @-20~70℃**

Conditions	Parameter
Over-power	105%~150% of rated power, Hiccup mode, auto recovery
Over-load	105%~150% of rated current constant voltage, auto recovery
Output short circuit protection	Long-term mode, Auto recovery

**ENVIRONMENT CHARACTERISTICS**

Conditions	Parameter
Operating amb. Temp.&Humi.	-20℃~70℃; 20%~90%RH No condensing
Storage Temp. & Humi.	-20℃~85℃; 10%~95%RH No condensing
Vibration	10 ~ 500Hz, 3G 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	GB4943/EN60950 (for reference)
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: 32A / 2min.; Grounding resistance: <0.1 ohms.
Leakage Current	I/P-Grounding≤3.5mA; 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 A
EMC immunity	EN61000-4-2,4,5,8,11

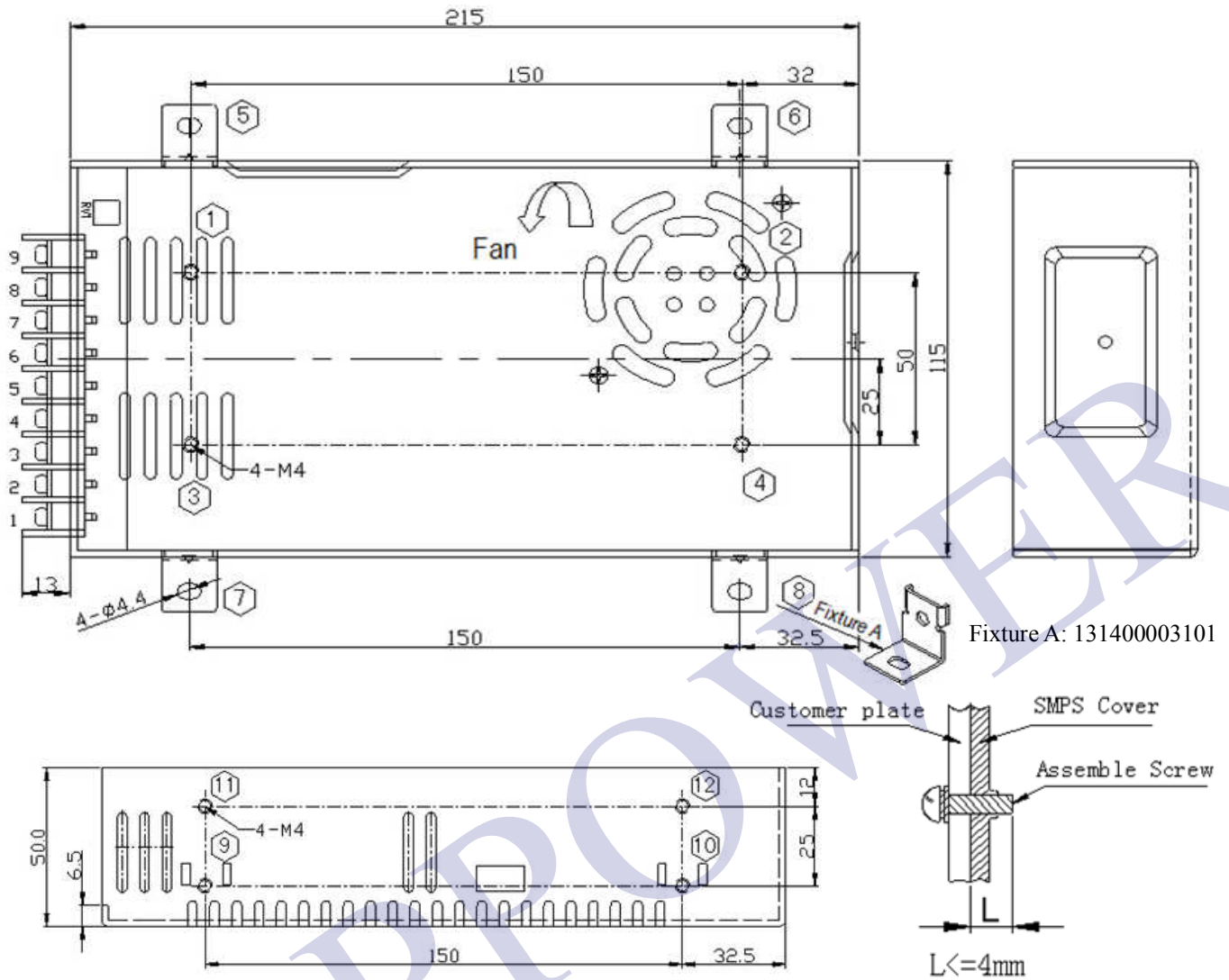
**OTHERS**

Conditions	Parameter
Cooling method	Cooling by force air
Dimension (L*W*H)	215*115*50mm
Net Weight	0.78kg

**RELIABILITY CHARACTERISTICS**

Conditions	Parameter
MTBF	100,000Hrs AT 25℃, MIL-217 Method 2 Components Stress Method
Design electrolytic capacitor life-time	>2years AT 50℃ 230VAC input 100% output

**MECHANICAL DIMENSIONS**



**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	⊕			

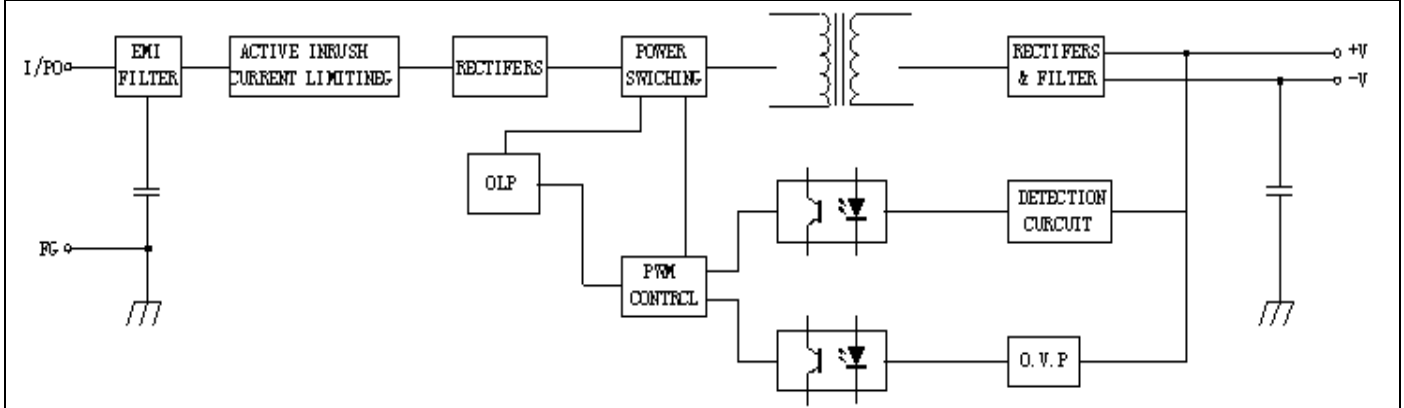
**2. Instruction of the DC Output Connectors**

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

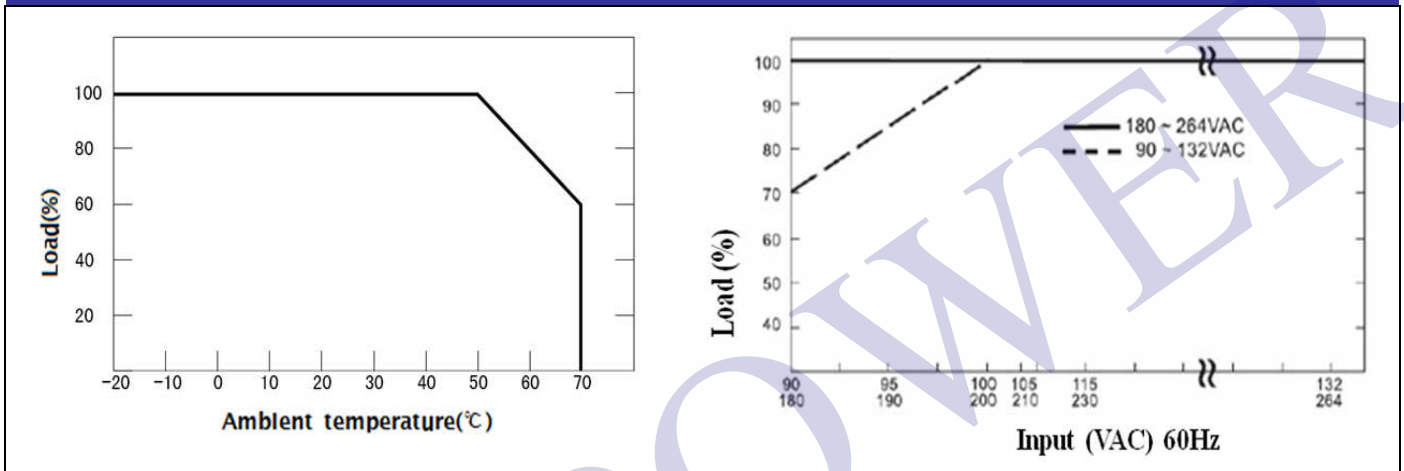
**3.**

Mounting position	Mounting type	Mounting position No.	Screw type	Lmax	Mounting Torque
Bottom	Fixing by screws	①—④	M4	4MM	12Kgf. cm (max)
		⑤—⑧	M4	4MM	12Kgf. cm (max)
Side	Fixing by Bracket	⑨—⑫	M4	4MM	12Kgf. cm (max)

**BLOCK DIAGRAM**



**DERATING CURVE**



**MODEL SELECTION**

