

# TPN3-12C SERIES

## Power Supply Specification

### KEY FEATURES

TPN3-12C series unit is a distribution panel with a combination of AC-DC converter/charger to convert 120VAC into 13.6VDC, DC divider and AC circuit breakers. With two types of output current 45A, 55A.

- Build-in AC-DC converter (Switching power supply)
- Build-in 11-circuit DC divider with fuse holder
- Five branches selectable by users with AC circuit breakers
- Build-in special DC charging terminal
- Over current protection, Short-circuit protection
- Forced air cooling and overheat protection
- Easy to mount
- High reliability, MTBF>100,000 hrs
- Line Regulation
- Plastic case, Slim case.
- Smart charge controller.
- Complies with UL458 Safety Standards

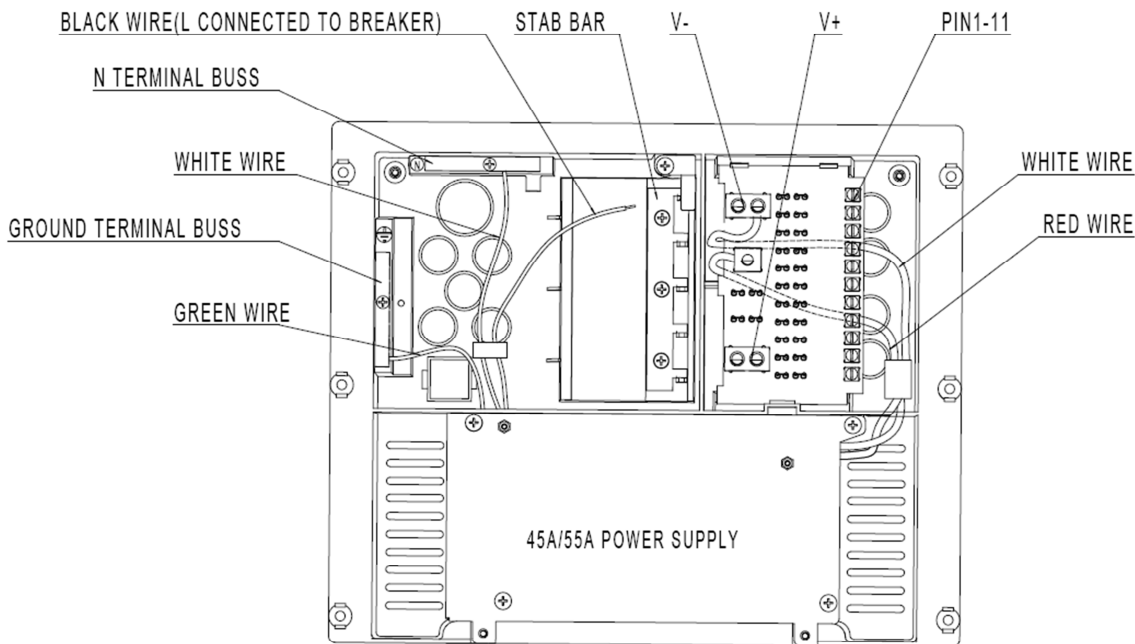


### SPECIFICATION

Model		Output Voltage	Output Power	Output Current	Input Current	Output Ripple Noise
<b>TPN3-45-12C</b>		13.6 VDC	612W	45A	12A	300mV
<b>TPN3-55-12C</b>		13.6 VDC	748W	55A	15A	300mV
INPUT CHARACTERISTICS						
AC Input Voltage	Rating	105-130Vac				
AC Input Current		See table above				
Inrush Current		<40A @120Vac				
Power Factor		N/A				
OUTPUT CHARACTERISTICS						
Output Voltage		13.2/13.6/14.6Vdc				
Output Power		See table above				
Efficiency		Typical values 85% @ 120Vac				
Hold-Up Time		5mS @120Vac				
Startup Time		1000mS Max				
Voltage Rise Time		50mS Max				
Load Regulation		2.5%Vdc				
Line Regulation		2%Vdc				
Over Load Protection		90-120%, Auto resetting				
Short Circuit Protection		Continuous, Auto resetting				
Over Voltage Protection		105-150%, Auto resetting				
Overtemp Protection		Auto resetting				
Hi-pot		I/P-O/P:1.5KVac,I/P-FG: 1.5KVac,O/P-FG:200Vdc				
ENVIRONMENTAL REQUIREMENTS						
Operating Temperature		0°C-40°C				

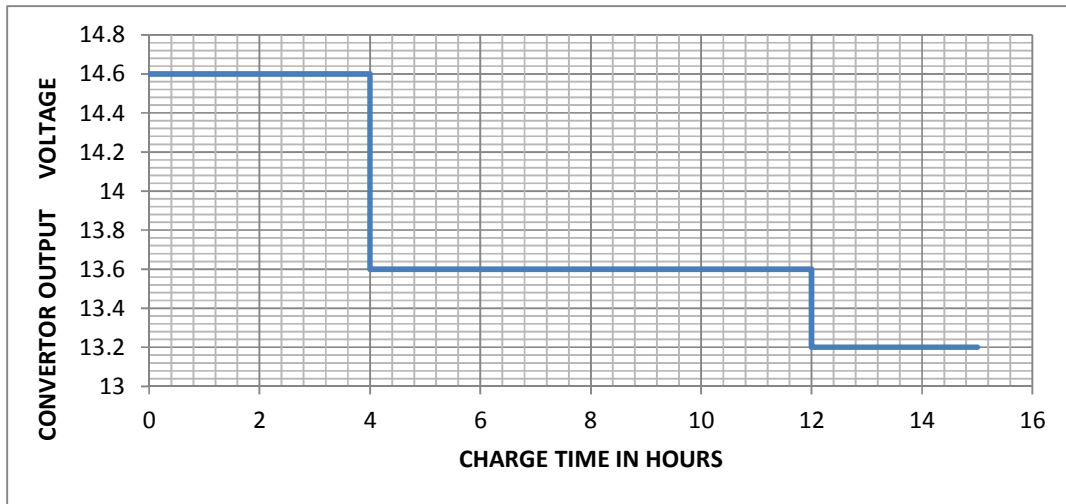
Storage Temperature	-25°C to 85°C
Operating Humidity	20 - 90% RH non condensing
Storage Humidity	10 - 95% RH non condensing
Cooling	Internal Fan
Vibration	IEC 68-2-6
Shock	IEC 68-2-7
<b>SAFETY &amp; EMC REQUIREMENTS</b>	
Safety Approvals	UL 458
EMC/Emissions	FCC15 CLASS A
RoHS Compliance	Compliant to EU Directive 2002/95/EC
<b>OTHERS</b>	
Reliability	100,000hrs at MIL HDBK 217F, 25°C
Pollution Standard	EN50178 Class 2
Warranty	3 Years
Size (W×D×H)	295mm (11.61") * 359mm (14.13") * 124mm (4.88")
Weight	2.7-3.5 kg
<b>CONNECTORS</b>	
Input AC	L, N, Ground,
Output DC	Pin1-11 (V+, )
Output DC Charging	V-, V+, (Connected to 12V Battery)
AC Output	Five branches selectable by users with AC circuit breakers

## CONNECTORS



## SMART CHARGE STAGE

The TPN3-12C series converters have the Smart Charge Controller Module built in. The Smart Charge Controller is a microprocessor-controlled device incorporated in TPN3-12C Converters. It constantly monitors the RV battery, and then automatically adjusts the converter output voltage based on its charge status. The Smart Charge Controller has 2 (2) operating Modes (BOOST, NORMAL). Each Mode is automatically selected by the Smart Charge Controller and ensures a fast yet safe charge for your RV battery. See chart below for details.



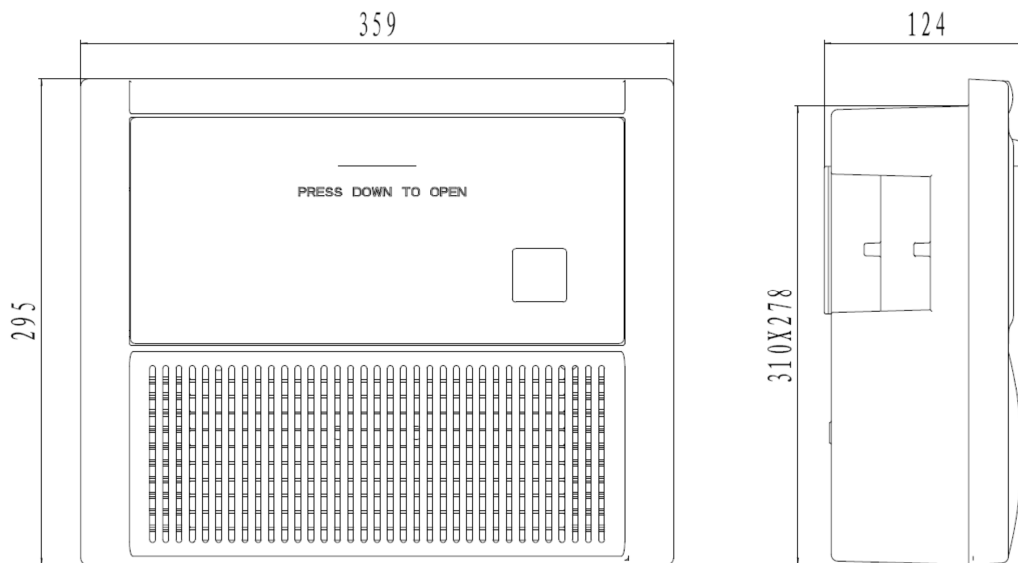
14.6 Volts (Boost Mode) –charge in approximately 4 hours.

13.6 Volts (Normal Mode) –charge in approximately 8 hours.

13.2 Volts (Battery Full) –The battery is fully charged and the charging process ends.

The integrated Smart Charge Controller ability to change the output voltage of the converter will significantly reduce the amount of time it takes to charge your RV battery.

### MECHANICAL REQUIREMENTS



**Note:**

- a. All parameters are specified at 120Vac, 25°C ambient and after a 5 min run-in time, unless otherwise noted.
- b. We reserve the right to make changes in the product at any time, without prior notification.



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