

## Heavy Duty Solar Panels

### Features

- Outstanding Low Light Performance
- Solar cells laminated with TPT/EVA bi-layer for long life. 25 year solar cell output warranty
- High Efficiency with high transparency low iron tempered glass cover. Rugged extruded anodized aluminum frame
- Sealed for protection from harsh environments
- Enclosed junction box for wired connections



*TPS-12-10 and TPS-12-30  
12V 10W and 30W Panels*

### Applications

- Battery Charging Applications
- Wireless Base Stations
- Remote Sensors
- Surveillance Cameras
- Outdoor Lighting
- Backup Power Systems

### Description

The TPS series solar panels are high efficiency designs with excellent low light performance. The multicrystalline silicon solar cells are laminated with a TPT (Tedlar/Polyester/Tedlar) and EVA (Ethylene Vinyl Acetate) bi-layer for high reliability and long life. The cell array is sealed in a heavy duty extruded aluminum frame with a high transparency low iron tempered glass cover to protect the solar cells from harsh environments; hail, wind, snow and ice.

The solar panels are easy to mount because of the aluminum frame design. The wired connections are via a weatherproof junction box on the back of the panels.



*Back of Panel with Junction Box*

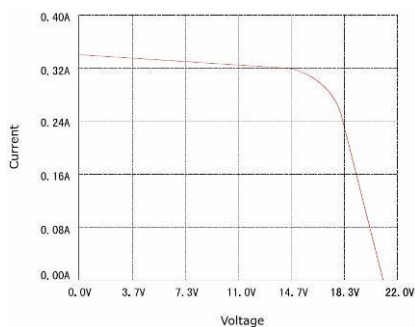


*Open Junction Box*

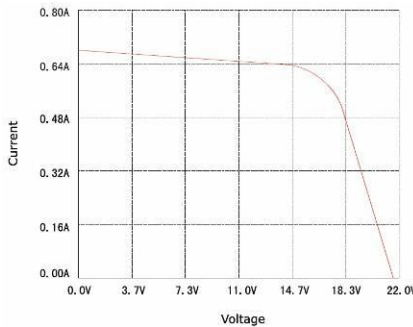
**Specifications**

	TPS-12-5	TPS-12-10	TPS-12-30	TPS-24-30
<b>Maximum Power (+/-5%)</b>	5W	10W	30W	30W
<b>Voltage at Pmax (Vmp)</b>	17V	17V	17.2V	34.4V
<b>Current at Pmax (Imp)</b>	0.29A	0.58A	1.74A	0.87A
<b>Open Circuit Voltage (Voc)</b>	21.6V	21.6V	21.6V	43.2V
<b>Short Circuit Current (Isc)</b>	0.34A	0.68A	1.93A	0.97A
<b>Open Circuit Temp Coeff</b>	.065% / °C	.065% / °C	.065% / °C	.065% / °C
<b>Short Circuit Temp Coeff</b>	-80mV / °C	-80mV / °C	-80mV / °C	-80mV / °C
<b>Output Power Temp Coeff</b>	0.5%/°C	0.5%/°C	0.5%/°C	0.5%/°C
<b>Wind Survivability</b>	201kph (125mph)	201kph (125mph)	201kph (125mph)	201kph (125mph)
<b>Hailstone Survivability</b>	1" @ 50mph	1" @ 50mph	1" @ 50mph	1" @ 50mph
<b>Operating Temperature</b>	-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C
<b>Monthly Energy Production (4hrs average sunlight per day)</b>	0.6kWh	1.2kWh	3.6kWh	3.6kWh
<b>Size</b>	221 x 269 x 18mm (8.7 x 10.6 x 0.7")	300 x 355 x 18mm (11.8 x 14 x 0.7")	541 x 510 x 35mm (21.3 x 20 x 1.4")	541 x 510 x 35mm (21.3 x 20 x 1.4")
<b>Weight</b>	0.75kg (1.7lb)	1.5kg (3.3lb)	3.5kg (7.7lb)	3.5kg (7.7lb)

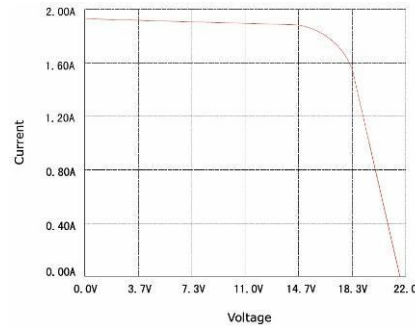
12V 5W IV Plot



12V 10W IV Plot



12V 30W IV Plot



**Notes:**

- All shipments F.O.B. Draper, UT 84020
- Tycon Power Systems Solar Panels carry a 2 year limited warranty and a 25 year limited power output warranty

**System Ordering:**

- TPS-12-5** 12V 5W Heavy Duty Solar Panel
- TPS-12-10** 12V 10W Heavy Duty Solar Panel
- TPS-12-30** 12V 30W Heavy Duty Solar Panel
- TPS-24-30** 24V 30W Heavy Duty Solar Panel
- TP-SC12-5** 12V 5A PWM Battery Charging Solar Controller
- TP-SC24-5** 24V 5A PWM Battery Charging Solar Controller



Solar Charge Controller

**For further information contact:**

[Tyconpower.com](http://Tyconpower.com)

