

TP IMPEX LIMITED**Solar MPPT 12.8V 6A with 9V 1.3A (12W) LED Driver Specifications****Electrical Parameters**

1	Product	MPPT 12V 6A
2	Nominal Battery Voltage (Volt)	12.8V
3	Maximum Charging Current	6.5A
4	Maximum PV Open Circuit Voltage	25V DC
5	PV Voltage Range	15-25V DC
6	Standby Power Consumption	< 10mA
7	Maximum PV Panel Rating for 12V	Maximum : 75W
8	Battery Charging Profile	CC/CV
9	Battery Voltage	12.8V
10	Battery Type	LFP 4S configurable
11	Charging Voltage	14.6 ± 0.05V
12	Battery High Voltage Charging Disconnect	>15.2 V
13	Power Conversion Efficiency	≥ 94 %
14	Battery Over Charge Current Shutdown	6A ± 1A
15	Battery Over Charge Current Retry	After 3 minutes
16	Load or Driver Shutdown	11.2V default setting (can be set at any level as per requirement)

MPPT Charge Controller Protections

17	LED indication	Battery Charging LED
		Fault LED
		Discharging LED
18		
19	Solar Panel Reverse Connection Protection	Provided
20	Battery Reverse Protection	Fused
21	Reverse Current Flow from Battery to Panel Protection	Provided
22	Overload Protection	Provided
23	Thermal Protection	Provided
24	Temperature Sensor Open Detection Protection	Provided

LED Driver Parameters

25	Input Voltage Range	10V to 30V
26	Maximum Output Current	2A max.
27	Power	18W
28	Dusk to Dawn	available (Logic based on panel OCV detection)
29	Driver Configuration	Non isolated Buck type
30	Regulated LED Current	Provided
31	Conversion Efficiency	Greater then 90 %
32	Motion Sensor Enabled	Provided (optional)
33	Dimming Duration	First 4 hours with full intensity after that based on motion sensor (at full intensity for 2 min when motion detected and at 50% after 2 min.)
34	Very Low Current Consumption in Ideal State	less then 2 mA of driver section only
35	Sensor open detection	Enabled (shutdown the LED)

Others Parameter

36	Dimensions (mm)	60 X 130 mm
37	Net Weight	0.35 kg
38	Maximum Wire Size	1.5 mm ²

Environmental Parameters

39	Ambient Temperature	0 to 45°C
40	Storage Temperature	0 to 80°C