



# Charger for Lead-Acid Battery



## Special Features

- Prevent Lead Sulfate Crystals on Electrode Surface
- Check Battery Voltage automatically for Charging Start
- Reverse Polarity Protection
- Short Circuit Protection
- LEDs indicate Charging Status
- 5 Year Warranty

## Key Applications

- Wheelchairs, Scooter
- Cars, Trucks, Caravan

## Charger for 12 V - 48 V Wet Cell and VRLA Battery

TPS-TBI Series applicate IUoU 2 and 3-Steps Charging Curve Maintenance-Free VRLA Batteries (AGM, GEL). Ensure that there is sufficient Air Circulation and a dry Environment when Charging a Battery.

The Charging Voltage is set up under 25°C Ambient Temperature by TPS. Ambient Temperature for Charging should be between 10°C - 30°C.

On special request this Charger Series is available with a Battery Refresher assembling included. (36 Volt Battery is excluded) The Battery Refresher (Page 31) avoids Sulfation of Rechargeable Lead Batteries (Lead-Acid, AGM, Gel with Capacity to 300 Ah) and works with Puls to Preventing Crystallization. The Battery Life will extend up to three Times longer than usual.

## Electrical Specifications

Characteristic:	IUoU (after 12/h Switching to Floating Charging)
EMC:	EN 55014, EN 55022, EN 61000
Class of Protection:	I for TBI ≤ 40 W - 350 W II for TBI 30 W
Main Voltage:	100 – 240 VAC, 50/60 Hz
Nominal Voltage:	12 V - 48 V
Refresher Impuls:	8.3 KHz
Operating Temperature:	10°C - 30°C
Storage Temperature:	-10°C - 70°C

## Safety, EMC

CE compliance with Low-Voltage Directive 2014/35/EU  
EMC Directive compliance with 2014/30/EU  
Safety compliance with UL508, UL60950-1, EN60950-1

## Ordering Information

Article No.	Article Name	Rated Bat. Voltage (V)	Charging Voltage (V)	Current (A)	Power (W)	Battery Typ
901002904	TPS030-CH12-2.5	12	14.4	2.5	30	AGM,GEL
901002905	TPS030-CH24-1.25	24	28.8	1.25	30	AGM,GEL
901000405	TPS060-CH12-5	12	14.4	5	60	Wet,AGM,GEL
901000406	TPS060-CH24-2.5	24	28.8	2.5	60	Wet,AGM,GEL
901000509	TPS150-CH12-12	12	14.4	12	150	Wet,AGM,GEL
901000510	TPS150-CH24-6	24	28.8	6	150	Wet,AGM,GEL
901000605	TPS200-CH12-16	12	14.4	16	200	Wet,AGM,GEL
901000604	TPS200-CH24-8	24	28.8	8	200	Wet,AGM,GEL
901000606	TPS300-CH24-12	24	28.8	12	300	Wet,AGM,GEL
901000613	TPS300-CH36-8	36	43.2	8	300	Wet,AGM,GEL
901000607	TPS300-CH48-6	48	57.6	6	300	Wet,AGM,GEL
901000615	TPS400-CH48-7	48	57.6	7	400	Wet,AGM,GEL
901000616	TPS800-CH48-14	48	57.6	14	800	Wet,AGM,GEL

## NOTE:

1. If Battery is not fully charged after 14/h, Reason could be Charger too weak or Battery Defective
2. Rule of Thumb: Charging Current = Battery Capacity 8 - 10. For Example 10 - 12 A Charger is suitable for 60 Ah Battery

## Accessories

- Charger
- Manuel
- XLR - Output Connector

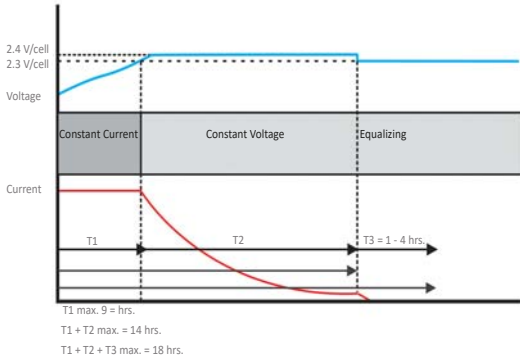




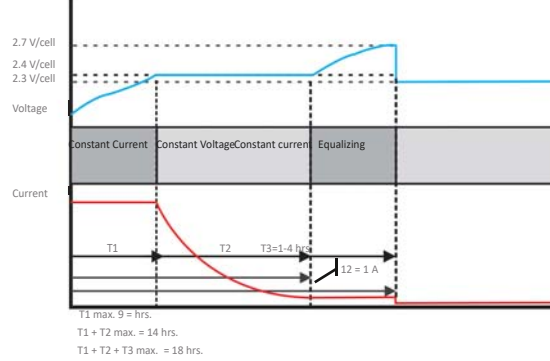
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## IUoU—Charging Curve

AGM and Gel Batteries



Wet Batteries



## LED Indicator 30 W

Red	Green	Yellow	Status Description
—			● Reverse Polarity Connected
	- - - -		● Cell > 90 % fully Charged, Hysteresis
	—		● No Cell Connected
		—	● Charging

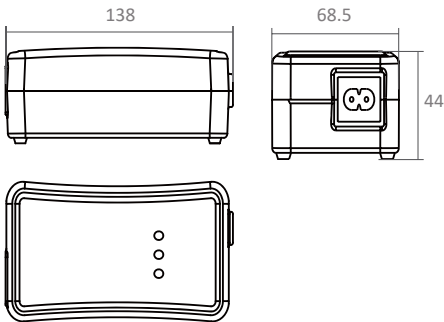
## LED Indicator



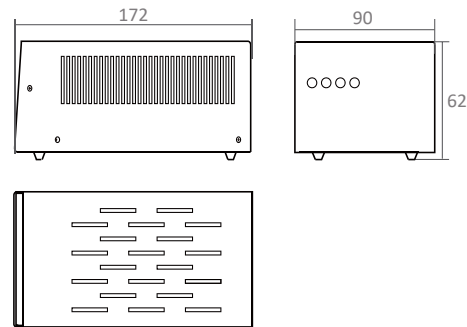
Red	Green	Yellow	Status Description
—			● OVP (12 V-Charger with 24 V-Battery Connected) or ● Reverse Polarity Connected
	- - - -		● Unit too Hot (Overtemperature in Unit)
	—		● No Battery Connected
	- - - -		● Charging Power Low or Battery Defective
		—	● Charging
		- - - -	● Battery > 90 % fully Charged, Floting Charging begins

## Mechanical Details

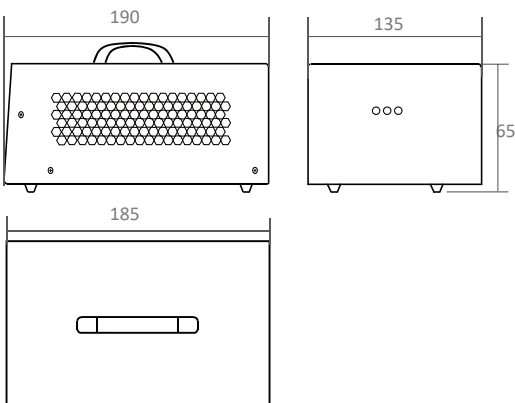
CH TPS30W



CH TPS60W



CH TPS150W



CH TPS300W

