

# TT★650W



**Brand New!**



## AVAILABLE MODELS

48V / 13.5A	36V / 18A	24V / 25A
33000	33100	33200

Future Releases - Coming Soon



## AMERICAN MADE

Enjoy peace of mind with superior quality and reliability, thanks to the TT650W, proudly designed and manufactured in the Heartland of the USA.



## DURABILITY

Minimize downtime and maintenance costs with a product built to last, even in the toughest environments, thanks to the natural convection-cooled (fanless) design and encapsulated electronics.



## FLEXIBILITY

Simplify your operations with a product that adapts to your needs, offering easy integration into any application with CAN bus communication, BMS wake-up capabilities, modular cordsets/wire harnesses, on-board and shelf use, and multiple mounting options.



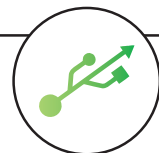
## U.S. SUPPORT

Keep everything running smoothly with unmatched U.S. based technical support and solutions from a team dedicated to your success and backed by 60+ years of expertise.



## PERFORMANCE

Extend battery life and improve performance with the TT650W, powered by advanced charging algorithms like Progressive DV/DT. The chargers also feature CAN bus topologies for use with leading lithium battery manufacturers.



## USB CONNECTIVITY

Effortlessly track charge cycles for quick troubleshooting or upgrade software directly through the USB host port. Enjoy the convenience of in-field updates and faster issue resolution, keeping your equipment running smoothly.

# SPECIFICATIONS

## AC INPUT

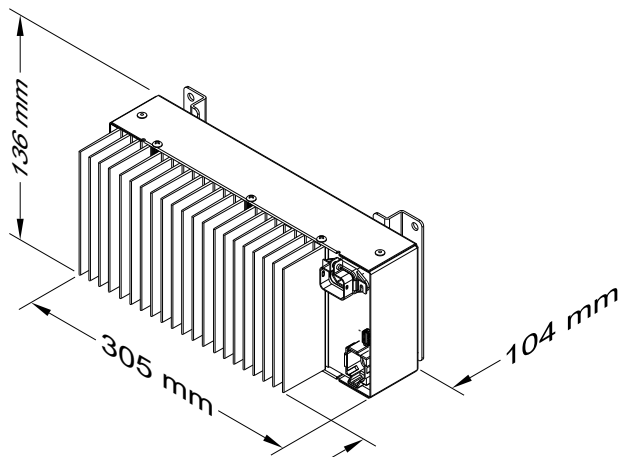
<b>Voltage range, rated</b>	100-240 Vac
<b>Voltage range, operating</b>	90-265 Vac
<b>Frequency, rated</b>	50-60 Hz
<b>Frequency, operating</b>	45-65 Hz
<b>Phase</b>	Single-phase
<b>Current, maximum</b>	< 8 A
<b>Efficiency</b>	> 90% peak, DOE test procedure, 115Vac, AC and DC losses included
<b>Protection</b>	Current limit, surge, transient, under voltage, over voltage

## DC OUTPUT

<b>Power</b>	650 W		
<b>Voltage, nominal</b>	24 Vdc	36 Vdc	48 Vdc
<b>Voltage, maximum</b>	36 Vdc	48 Vdc	72 Vdc
<b>Current, maximum</b>	25 A	18 A	13 A
<b>Voltage, min start-up</b>	10 Vdc		
<b>Battery types</b>	Lead-acid (Wet / AGM / TPPL / Gel), lithium (LifePO4 / NMC / others), & custom		
<b>Protection</b>	Current limit, short circuit, reverse polarity, under voltage & over voltage		

## ENVIRONMENTAL

<b>Enclosure rating</b>	IP66, NEMA 4
<b>Operating temperature</b>	-25 °C to 50 °C (-30 °F to 122 °F)
<b>Storage temperature</b>	-40 °C to 85 °C (-40 °F to 185 °F)



## USER & VEHICLE INTERFACES

<b>LED</b>	RGB LED for charge status
<b>Wake-up signal</b>	Two wire interface allows battery management system to wake-up when AC power is present
<b>USB</b>	Port for software and profile updates, history records and data logging
<b>CAN bus</b>	CANopen, SAE J1939, CAN 2.0

## MECHANICAL

<b>Dimensions (LxWxH), (removable brackets &amp; handle not included)</b>	305 x 104 x 136 mm (12.06 x 4.13 x 5.35 in)
<b>Weight</b>	10 lbs. (4.54 Kgs)
<b>Cooling</b>	Natural convection (no fan)
<b>AC input connector</b>	IEC 60320 C-14 inlet with cord clamp
<b>DC output connector</b>	8-pin Deutsch
<b>BMS wake-up connector</b>	8-pin Deutsch
<b>CAN bus connector</b>	8-pin Deutsch
<b>USB connector</b>	USB-A port
<b>Mounting</b>	Shelf & on-board (see detail below)
<b>Handle</b>	Carrying handle optional

## SAFETY/REGULATORY

<b>Efficiency</b>	U.S. Department of Energy (DOE); California Energy Commission (CEC); Natural Resources Canada (NRCAN) (pending)
<b>Safety / Emissions</b>	FCC Part 15 & ICES-003, Class A / Designed to UL 1564 & CAN/CSA-C22.2 NO. 107.2-01

## AVAILABLE MOUNTING BRACKETS

<b>Summit II 650W (Shelf &amp; On-board)</b>	
<b>Summit II 1050W (Shelf &amp; On-board)</b>	
<b>Additional mounting brackets available upon request</b>	



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