







Solar Controller / Battery Charger

MODEL: RS-PWM20WP

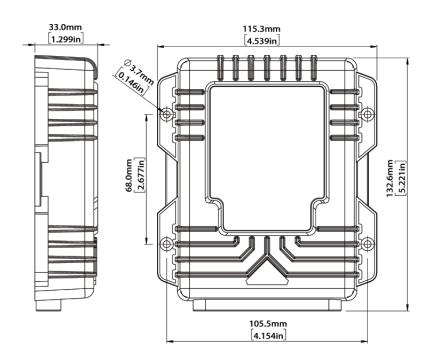
FEATURES AND ADVANTAGES

- PWM technology, switching control by MOSFET
- Common Positive Grounding connection
- High efficiency and low power consumption
- Battery type setting and battery condition indication
- Smart charging control
- Charging time management
- LED indication for the battery condition and charging statues
- Digital display charging parameters and battery settings
- Automatically active to Lithium battery against BMS protection
- Thermal protection
- Over voltage protection, Short circuit protection, Reverse polarity protection
- No sparks
- Waterproof
- Solid-duty cables
- Corrosion-resistant terminals and connectors
- Conformal coating supplied to the inside board against moisture
- Includes a port for external battery temperature sensor (BTS optional)
- Suitable for most of the rechargeable Lead acid battery, including Flooded (WET), AGM, GEL, Calcium battery and Lithium batteries
- Designed according to CE standard, EMC, FCC compliance



MOUNTING THE DEVICE

The quickest and easiest way to mount the unit is to use the four plastic spacers and self-tapping screws supplied and mount the unit to a flat surface.











5550 Jurupa St, Ontario, CA 91761 🔘

SPECIFICATION

Normal Input Solar Cell Array Voltage 15-22VDC	ELECTRICAL PARAMETERS	Rated Solar Panel Amps	Max. 20AMP
Max. Solar Cell Array Voltage (Output Has no Load) 25VDC	ELECTRICAL FARAMETERS	· · · · · · · · · · · · · · · · · · ·	
The Controller Lowest Operating Voltage at Solar or Battery Side Standby Current Consumption at Night Maximum Voltage Drop-Solar Panel to Battery 0.25VDC CHARGING CHARACTERISTICS Minimum Battery Starts Charging Voltage Soft Start Charging Voltage Soft Start Charging Voltage Soft Start Charging Voltage Soft Start Charging Voltage By the maximum rated cur Absorption Charging Voltage at 25°C - Gel Type Battery - AGM Type Battery (Default Setting) - WET Type Battery - Calcium Type Battery - Calcium Type Battery - LITO Battery - Carrent Drops to - Charging Current Drops to - Admark Equalization Charging Timer Timed out - Charging Current Drops to - Automatic Equalizing Charging Periodical - Equalization Charging Voltage at 25°C - Battery Voltage Discharged to Less Than - Automatic Equalizing Charging Periodical - Automatic Equalization Charging Timer Timed out - Automatic Equalization Charging Timer Timed out - Phours - Automatic Equalization Charging Periodical - Equalization Charging Timer Timed out - Automatic Equalization Charging Periodical - Equalization Charging Timer Timed out - Automatic Equalization Charging Periodical - Equalization Charging Timer Timed out - Automatic Equalization Charging Periodical - Equalization Charging Timer Timed out - Automatic Equalization Charging Periodical - Equalization Charging Timer Timed out - Automatic Equalization Charging Periodical - Equalization Charging Timer Timed out - Automatic Equalization Charging Periodical - Equalization Charging Timer Timed out - Automatic Equalization Charging - Equalization Charging Timer Timed out - Automatic Equalization Charging Periodical - Equalization Charging Timer Timed out - Automatic Equalization Charging - Equalization Charging Timer Timed out - Automatic Equalization Charging - Equalization Charging Timer Timed out - Automatic Equalization Ch			
Standby Current Consumption at Night SmA			
Maximum Voltage Drop-Solar Panel to Battery 0.25VDC CHARGING CHARACTERISTICS Minimum Battery Starts Charging Voltage 3VDC Soft Start Charging Voltage 3-10±0.2VDC Soft Start Charging Current (50% PWM Duty) Up to 104MP Bulk Charge Butkery 14.1±0.2VDC - Gel Type Battery 14.1±0.2VDC - AGM Type Battery (Default Setting) 14.4±0.2VDC - AGM Type Battery 14.9±0.2VDC - LTO Battery 14.9±0.2VDC - LTO Battery 14.0±0.2VDC - Charging Current Drops to 1.5±0.1MMP - or Absorption Charging Timer Timed out 4 Hours Equalization Charging Timer Timed out 2 Hours - Automatic Equalizing Charging Periodical 28 Day Equalization Charging Voltage at 25°C 15.5±0.2VDC Equalization Charging Timer Timed out 2 Hours Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C 15.5±0.2VDC Restart Voltage for LFP Battery 13.2±0.2VDC Restart Voltage Control Accuracy 10.1% Battery Temperature Compensation Range -20-+50°C (-4°F to 122°F) PROTECTION 0ver Temperature Protection During Charging 65°C (140°F) ELECTRICAL PARTS Input Output Terminal M5 terminals Physic Cal Partinal Maximum Stranded Wire Size 110 AVG Stranded-5 mm Power Terminal Torque 110 AVG Stranded-5 mm Power Terminal Torque 110 AVG Stranded-5 mm Power Terminal Maximum Stranded Wire Size 110 AVG Stranded-5 mm Power Terminal M5 terminal 110 AVG Stranded-5 mm Power Terminal M5 te			
Minimum Battery Starts Charging Voltage 3VDC			
Soft Start Charging Voltage 3-10±0.2VDC	CHARGING CHARACTERISTICS		
Soft Start Charging Current (50% PWM Duty) Bulk Charge By the maximum rated cur Absorption Charging Voltage at 25°C - Gel Type Battery - AGM Type Battery (Default Setting) - WET Type Battery - Calcium Type Battery - LTO Battery - LFP Battery - LFP Battery - LFP Battery - LFP Battery - Charging Current Drops to - Charging Current Drops to - or Absorption Charging Timer Timed out - Charging Current Drops to - Automatic Equalization Charging Active (Only for WET or Calcium Battery) - Automatic Equalizing Charging Periodical - Equalization Charging Timer Timed out - Automatic Equalizing Charging Periodical - Equalization Charging Timer Timed out - Automatic Equalizing Charging Periodical - Equalization Charging Timer Timed out - Hours - Hours - Equalization Charging Timer Timed out - Hours - Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C - Restart Voltage for LFD Battery - Voltage Control Accuracy - 20 1% - Battery Temperature Compensation Coefficient - 24 mV/°C - Temperature Compensation Range - 20 -+50 °C (-4°F to 122°F) - PROTECTION - Over Temperature Protection During Charging - Mounting - Over Terminal Maximum Stranded Wire Size - H10 AWG stranded - 5 mm - Power Terminal Maximum Stranded Wire Size - H10 AWG stranded - 5 mm - Power Terminal Maximum Stranded Wire Size - Woltage Mounting - Wortical wall mounting - Power Terminal Torque - Power Terminal Maximum Stranded Wire Size - Power Terminal Torque - Power Terminal Maximum Stranded Wire Size - Power Terminal Maximum Str	CHARGING CHARACTERISTICS		
Bulk Charge Absorption Charging Voltage at 25°C - Gel Type Battery - AGM Type Battery (Default Setting) - WET Type Battery - Calcium Type Battery - Calcium Type Battery - Calcium Type Battery - LTO Battery - LTO Battery - LTO Battery - LFP Battery - LFP Battery - LFP Battery - Charging Current Drops to - or Absorption Charging Timer Timed out - Charging Current Drops to - or Absorption Charging Active (Only for WET or Calcium Battery) - Battery Voltage Discharged to Less Than - Automatic Equalization Charging Periodical - Equalization Charging Timer Timed out - Automatic Equalization Charging Periodical - Equalization Charging Timer Timed out - Automatic Equalization Charging Woltage at 25°C - Equalization Charging Timer Timed out - 2 Hours - Hours			
Absorption Charging Voltage at 25°C - Gel Type Battery 14,1±0.2VDC - AGM Type Battery (Default Setting) 14,1±0.2VDC - WET Type Battery 14,7±0.2VDC - WET Type Battery 14,7±0.2VDC - Calcium Type Battery 14,9±0.2VDC - LTO Battery 14,0±0.2VDC - LTO Battery 14,0±0.2VDC - LTP Battery 14,4±0.2VDC - LFP Battery 14,4±0.2VDC - Absorption Transits to Equalizing or Float Condition: - Charging Current Drops to 1.5±0.1AMP - or Absorption Charging Timer Timed out 4 Hours Equalization Charging Active (Only for WET or Calcium Battery) - Battery Voltage Discharged to Less Than 10±0.2VDC - Automatic Equalizing Charging Periodical 28 Day Equalization Charging Voltage at 25°C 15,5±0.2VDC Equalization Charging Timer Timed out 2 Hours Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13,6±0.2VDC Restart Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13,6±0.2VDC Restart Voltage for LTD Battery 13,2±0.2VDC Restart Voltage Control Accuracy ±0,1% Battery Temperature Compensation Coefficient -2x mV/°C Temperature Compensation Range -20-+50 °C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging M5 terminals PHYSICAL PARAMETERS [Dut Qut Terminal M5 terminals] Physical Parameters (During Charging M5 terminals) Power Terminal Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-1b (1,9 N·m) Mounting Vertica wall mounting Porade Power Terminal Torque Up to 17 in-1b (1,9 N·m) Mounting Approx. 300g/0.66lb ENVIRONMENTAL Operating Temperature -25 - 50°C / -13-122 °F -450°C / -40 -85°C / -40 -			
- Gel Type Battery 14.1 ±0.2 VDC - AGM Type Battery (Default Setting) 14.4 ±0.2 VDC - AGM Type Battery 14.7 ±0.2 VDC - WET Type Battery 14.9 ±0.2 VDC - Calcium Type Battery 14.9 ±0.2 VDC - LTO Battery 14.0 ±0.2 VDC - LTO Battery 14.0 ±0.2 VDC - LFP Battery 15.5 ±0.1 AMP - or Absorption Transits to Equalizing or Float Condition: - Charging Current Drops to 1.5 ±0.1 AMP - or Absorption Charging Timer Timed out 4 Hours - Battery Voltage Discharged to Less Than 10 ±0.2 VDC - Automatic Equalization Charging Periodical 28 Day - Equalization Charging Voltage at 25°C - Equalization Charging Timer Timed out 2 Hours - Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13.6 ±0.2 VDC - Restart Voltage for LFD Battery 13.2 ±0.2 VDC - Restart Voltage Control Accuracy 13.2 ±0.2 VDC - Restart Voltage Control Accuracy 10.1 % - Battery Temperature Compensation Coefficient 24 mV/°C - Temperature Compensation Range 20 ±450 °C (-4°F to 122°F) - PROTECTION Over Temperature Protection During Charging 65°C (140°F) - ELECTRICAL PARTS Input Output Terminal M5 terminals - Physical PARAMETERS Power Terminal M5 terminals - Power Terminal Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-lb (1,9 N·m) - Wounting Porade Post Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-lb (1,9 N·m) - Wounting Porade Post Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-lb (1,9 N·m) - Wounting Porade Post Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-lb (1,9 N·m) - Wounting Porade Post Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-lb (1,9 N·m) - Wounting Post Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-lb (1,9 N·m) - Wounting Post Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Termin			By the maximum rated curren
- AGM Type Battery (Default Setting) 14.4±0.2VDC - WET Type Battery 14.7±0.2VDC - Calcium Type Battery 14.9±0.2VDC - Calcium Type Battery 14.9±0.2VDC - LTO Battery 14.0±0.2VDC - LTO Battery 14.0±0.2VDC - LFP Battery 14.4±0.2VDC - LFP Battery 14.4±0.2VDC - LFP Battery 14.4±0.2VDC - Charging Current Drops to 1.5±0.1AMP - or Absorption Transits to Equalizing or Float Condition: - Charging Current Drops to 1.5±0.1AMP - or Absorption Charging Timer Timed out 4 Hours - Return Voltage Discharged to Less Than 10±0.2VDC - Automatic Equalizing Charging Periodical 28 Day - Automatic Equalizing Charging Periodical 28 Day - Automatic Equalization Charging Timer Timed out 2 Hours - Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13.6±0.2VDC - Restart Voltage for LTO Battery 13.2±0.2VDC - Restart Voltage for LTP Battery 13.4±0.2VDC - Restart Voltage for LFP Battery 13.4±0.2VDC - Voltage Control Accuracy ±0.1% - Battery Temperature Compensation Coefficient -24 mV/°C - Temperature Compensation Range -20+50 °C (-4°F to 122°F) - PROTECTION Over Temperature Protection During Charging 55°C (149°F) - ELECTRICAL PARAMETERS Input Output Terminal M5 terminals - Physical Parameters - Controller Material Plastic, Standard ABS - Power Terminal Torque Up to 17 in-lb (1,9 N·m) - Mounting Vertical wall mounting - Porade Poss - 50°C / -13-122°F - Net Weight Approx. 300g/0.66lb - Net Weight Approx. 300g/0.66lb			
-WET Type Battery 14.7±0.2VDC - Calcium Type Battery 14.9±0.2VDC - LTO Battery 14.0±0.2VDC - LTO Battery 14.0±0.2VDC - LTP Battery 14.4±0.2VDC - LFP Battery 14.4±0.2VDC Absorption Transits to Equalizing or Float Condition: - Charging Current Drops to 1.5±0.1AMP - or Absorption Charging Timer Timed out 4 Hours Equalization Charging Active (Only for WET or Calcium Battery) - Battery Voltage Discharged to Less Than 10±0.2VDC - Automatic Equalizing Charging Periodical 28 Day Equalization Charging Voltage at 25°C 15.5±0.2VDC Equalization Charging Timer Timed out 2 Hours Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13.6±0.2VDC Restart Voltage for LTO Battery 13.2±0.2VDC Restart Voltage for LTP Battery 13.4±0.2VDC Voltage Control Accuracy 50.1% Battery Temperature Compensation Coefficient -24 mV/°C Temperature Compensation Range -20-+50 °C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging M5 terminals Physical Parameters Controller Material Plastic, Standard ABS Power Terminal Maximum Stranded Wire Size #10 AWG stranded-5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting IP Grade IP6 Meut Weight Approx. 300g/0.66lb ENVIRONMENTAL CHARACTERISTICS Storage Temperature -25 ~ 50°C / -13~122°F			
- Calcium Type Battery 14.9±0.2VDC - LTO Battery 14.0±0.2VDC - LFP Battery 14.4±0.2VDC Absorption Transits to Equalizing or Float Condition: - Charging Current Drops to 1.5±0.1AMP - or Absorption Charging Timer Timed out 4 Hours Equalization Charging Active (Only for WET or Calcium Battery) - Battery Voltage Discharged to Less Than 10±0.2VDC - Automatic Equalizing Charging Periodical 28 Day Equalization Charging Voltage at 25°C 15.5±0.2VDC Equalization Charging Timer Timed out 2 Hours Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13.6±0.2VDC Restart Voltage for LTO Battery 13.2±0.2VDC Restart Voltage for LTO Battery 13.2±0.2VDC Restart Voltage for LTO Battery 13.4±0.2VDC Restart Voltage for LTO Battery 20.1% Battery Temperature Compensation Coefficient -24 mV/C Temperature Compensation Range -20-+50 °C (-4°F to 122°F) PROTECTION 0ver Temperature Protection During Charging M5 5°C (149°F) ELECTRICAL PARTS Input Output Terminal M5 terminals PhySICAL PARAMETERS Ocntroller Material Plastic, Standard ABS Power Terminal Maximum Stranded Wire Size #10 AWG stranded-5 mm Power Terminal Inorque Up to 17 in-lb (1.9 N·m) Mounting Vertical wall mounting IP Grade IP6 Approx. 300g/0.66lb ENVIRONMENTAL Operating Temperature -25 ~50°C / -13~122 °F STORD STO			14.4±0.2VDC
- LTO Battery 14.0±0.2VDC - LFP Battery 14.4±0.2VDC Absorption Transits to Equalizing or Float Condition: - Charging Current Drops to 1.5±0.1AMP - or Absorption Charging Timer Timed out 4 Hours Equalization Charging Active (Only for WET or Calcium Battery) - Battery Voltage Discharged to Less Than 10±0.2VDC - Automatic Equalizing Charging Periodical 28 Day Equalization Charging Tolage at 25°C 15.5±0.2VDC Equalization Charging Timer Timed out 2 Hours Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13.6±0.2VDC Restart Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13.6±0.2VDC Restart Voltage for LTO Battery 13.2±0.2VDC Restart Voltage Control Accuracy 13.4±0.2VDC Voltage Control Accuracy 10.1% Battery Temperature Compensation Coefficient 2-24 mV/°C Temperature Compensation Range 20-450 °C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging 65°C (149°F) ELECTRICAL PARTS Input Output Terminal M5 terminals PhySICAL PARAMETERS Controller Material Power Terminal Maximum Stranded Wire Size 10.0 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-1b (1.9 N·m) Mounting Vertical wall mounting IP Grade 1P65 Net Weight Approx. 300g/0.66lb ENVIRONMENTAL CHARACTERISTICS Storage Temperature - 40 ~ 85°C / -40 ~ 85		- WET Type Battery	14.7±0.2VDC
- LFP Battery Absorption Transits to Equalizing or Float Condition: - Charging Current Drops to - or Absorption Charging Timer Timed out 4 Hours Equalization Charging Active (Only for WET or Calcium Battery) - Battery Voltage Discharged to Less Than - Automatic Equalizing Charging Periodical Equalization Charging Voltage at 25°C Equalization Charging Timer Timed out 2 Hours Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C Restart Voltage (GEL, WET, Calcium, AGM battery) at 25°C Restart Voltage for LTO Battery 13.2±0.2VDC Restart Voltage for LTP Battery 13.4±0.2VDC Voltage Control Accuracy 40.1% Battery Temperature Compensation Coefficient -24 mV/°C Temperature Compensation Range -20~+50°C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging ELECTRICAL PARTS Input Output Terminal Physical Parameters Controller Material Power Terminal Maximum Stranded Wire Size #10 AWG stranded-5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting Vertical wall mounting IP Grade Net Weight ENVIRONMENTAL CHARACTERISTICS Storage Temperature -25 ~ 50°C / -13-122 °F -40 ~ 85°C / -40~185°F		- Calcium Type Battery	14.9±0.2VDC
Absorption Transits to Equalizing or Float Condition: - Charging Current Drops to 1.5±0.1AMP - or Absorption Charging Timer Timed out 4 Hours Equalization Charging Active (Only for WET or Calcium Battery) - Battery Voltage Discharged to Less Than 10±0.2VDC - Automatic Equalizing Charging Periodical 28 Day Equalization Charging Voltage at 25°C 15.5±0.2VDC Equalization Charging Timer Timed out 2 Hours Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13.6±0.2VDC Restart Voltage for LTO Battery 13.2±0.2VDC Restart Voltage for LTP Battery 13.4±0.2VDC Voltage Control Accuracy ±0.1% Battery Temperature Compensation Coefficient -24 mV/°C Temperature Compensation Range -20~+50°C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging 65°C (149°F) ELECTRICAL PARTS Input Output Terminal M5 terminals PHYSICAL PARAMETERS Controller Material Plastic, Standard ABS Power Terminal Maximum Stranded Wire Size #10 AWG stranded-5 mm Power Terminal Maximum Stranded Wire Size #10 AWG stranded-5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting Vertical wall mounting IP Grade IP65 Net Weight Approx. 300g/0.66lb ENVIRONMENTAL Operating Temperature -25 ~ 50°C / -13-122 °F Storage Temperature -40 ~ 85°C / -40~185°F		- LTO Battery	14.0±0.2VDC
- Charging Current Drops to 1.5±0.1AMP - or Absorption Charging Timer Timed out 4 Hours Equalization Charging Active (Only for WET or Calcium Battery) - Battery Voltage Discharged to Less Than 10±0.2VDC - Automatic Equalizing Charging Periodical 28 Day Equalization Charging Voltage at 25°C 15.5±0.2VDC Equalization Charging Timer Timed out 2 Hours Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13.6±0.2VDC Restart Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13.6±0.2VDC Restart Voltage for LTO Battery 13.2±0.2VDC Voltage Control Accuracy ±0.1% Battery Temperature Compensation Coefficient -24 mV/°C Temperature Compensation Range -20~+50 °C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging 65°C (149°F) ELECTRICAL PARTS Input Output Terminal M5 terminals PHYSICAL PARAMETERS Oontroller Material Plastic, Standard ABS Power Terminal Maximum Stranded Wire Size #10 AWG stranded -5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting Vertical wall mounting IP Grade IP65 Net Weight Approx. 300g/0.66lb ENVIRONMENTAL Operating Temperature -25 ~ 50°C / -13-122 °F Storage Temperature -25 ~ 50°C / -13-122 °F Storage Temperature -40 ~ 85°C / -40~185 °F		- LFP Battery	14.4±0.2VDC
- or Absorption Charging Timer Timed out Equalization Charging Active (Only for WET or Calcium Battery) - Battery Voltage Discharged to Less Than 10±0.2VDC - Automatic Equalizing Charging Periodical 28 Day Equalization Charging Voltage at 25°C 15.5±0.2VDC Equalization Charging Timer Timed out 2 Hours Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13.6±0.2VDC Restart Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13.6±0.2VDC Restart Voltage for LTO Battery 13.2±0.2VDC Restart Voltage Control Accuracy ±0.1% Battery Temperature Compensation Coefficient -24 mV/°C Temperature Compensation Range -20~+50 °C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging 65°C (149°F) ELECTRICAL PARTS Input Output Terminal M5 terminals PHYSICAL PARAMETERS Controller Material Plastic, Standard ABS Power Terminal Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting Vertical wall mounting IP Grade IP65 Net Weight Approx. 300g/0.66lb ENVIRONMENTAL Operating Temperature -25 ~ 50°C / -13~122 °F Storage Temperature -40 ~ 85°C / -40~185 °F		Absorption Transits to Equalizing or Float Condition:	
Equalization Charging Active (Only for WET or Calcium Battery) - Battery Voltage Discharged to Less Than 10±0.2VDC - Automatic Equalizing Charging Periodical 28 Day Equalization Charging Voltage at 25°C 15.5±0.2VDC Equalization Charging Timer Timed out 2 Hours Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13.6±0.2VDC Restart Voltage for LTO Battery 13.2±0.2VDC Restart Voltage For LTO Battery 13.4±0.2VDC Voltage Control Accuracy 40.1% Battery Temperature Compensation Coefficient -24 mV/°C Temperature Compensation Range -20~+50 °C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging 65°C (149°F) ELECTRICAL PARTS Input Output Terminal M5 terminals Physical Parameters Controller Material Plastic, Standard ABS Power Terminal Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting Vertical wall mounting IP Grade IP65 Net Weight Approx. 300g/0.66/lb ENVIRONMENTAL Operating Temperature -25 ~ 50°C / -13~122 °F Storage Temperature -40 ~ 85°C / -40~185 °F		- Charging Current Drops to	1.5±0.1AMP
- Battery Voltage Discharged to Less Than 10±0.2VDC - Automatic Equalizing Charging Periodical 28 Day Equalization Charging Voltage at 25°C 15.5±0.2VDC Equalization Charging Timer Timed out 2 Hours Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C Restart Voltage for LTO Battery 13.2±0.2VDC Restart Voltage For LFP Battery 13.4±0.2VDC Voltage Control Accuracy 20,1% Battery Temperature Compensation Coefficient -24 mV/°C Temperature Compensation Range -20~+50 °C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging ELECTRICAL PARTS Input Output Terminal M5 terminals Plastic, Standard ABS Power Terminal Maximum Stranded Wire Size #10 AWG stranded-5 mm Power Terminal Torque Up to 17 in-lib (1.9 N·m) Mounting IP Grade Net Weight ENVIRONMENTAL CHARACTERISTICS Storage Temperature -25 ~ 50°C / -13~122 °F -40 ~ 85°C / -40~185 °F		- or Absorption Charging Timer Timed out	4 Hours
- Automatic Equalizing Charging Periodical Equalization Charging Voltage at 25°C Equalization Charging Timer Timed out Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C Restart Voltage for LTO Battery Restart Voltage for LFP Battery 13.4±0.2VDC Restart Voltage Control Accuracy Battery Temperature Compensation Coefficient Temperature Compensation Range -20~+50°C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging ELECTRICAL PARTS Input Output Terminal M5 terminals PHYSICAL PARAMETERS Controller Material Power Terminal Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Wounting IP Grade Net Weight Operating Temperature CHARACTERISTICS Storage Temperature -25 ~ 50°C / -13~122 °F -40 ~ 85°C / -40~185 °F		Equalization Charging Active (Only for WET or Calcium Battery)	
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Equalization Charging Timer Timed out 2 Hours Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C 13.6±0.2VDC Restart Voltage for LTO Battery 13.2±0.2VDC Restart Voltage for LFP Battery 13.4±0.2VDC Voltage Control Accuracy ±0.1% Battery Temperature Compensation Coefficient -24 mV/°C Temperature Compensation Range -20-+50 °C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging 65°C (149°F) ELECTRICAL PARTS Input Output Terminal M5 terminals Physical Parameters Controller Material Plastic, Standard ABS Power Terminal Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting Vertical wall mounting IP Grade IP65 Net Weight Approx. 300g/0.66lb ENVIRONMENTAL Operating Temperature -25 ~ 50°C / -13~122 °F Storage Temperature -40 ~ 85°C / -40~185 °F		- Automatic Equalizing Charging Periodical	28 Day
Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C Restart Voltage for LTO Battery Restart Voltage for LFP Battery 13.2±0.2VDC Restart Voltage for LFP Battery 13.4±0.2VDC Voltage Control Accuracy Battery Temperature Compensation Coefficient -24 mV/°C Temperature Compensation Range -20~+50 °C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging 65°C (149°F) ELECTRICAL PARTS Input Output Terminal M5 terminals Plastic, Standard ABS Power Terminal Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting IP Grade Net Weight Approx. 300g/0.66lb ENVIRONMENTAL CHARACTERISTICS Storage Temperature -25 ~ 50°C / -40~185 °F		Equalization Charging Voltage at 25°C	15.5±0.2VDC
Restart Voltage for LTO Battery 13.2±0.2VDC Restart Voltage for LFP Battery 13.4±0.2VDC Voltage Control Accuracy 40.1% Battery Temperature Compensation Coefficient 7-24 mV/°C Temperature Compensation Range -20~+50 °C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging 65°C (149°F) ELECTRICAL PARTS Input Output Terminal M5 terminals Plastic, Standard ABS Power Terminal Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting Vertical wall mounting IP Grade Net Weight Approx.300g/0.66lb ENVIRONMENTAL CHARACTERISTICS Storage Temperature -25 ~ 50°C / -40~185°F		Equalization Charging Timer Timed out	2 Hours
Restart Voltage for LFP Battery Voltage Control Accuracy Battery Temperature Compensation Coefficient Temperature Compensation Range -20~+50 °C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging ELECTRICAL PARTS Input Output Terminal M5 terminals Physical parameters Controller Material Power Terminal Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting IP Grade Net Weight Approx. 300g/0.66lb ENVIRONMENTAL CHARACTERISTICS Storage Temperature -25 ~ 50°C / -40~185 °F		Float Voltage (GEL, WET, Calcium, AGM battery) at 25°C	13.6±0.2VDC
Voltage Control Accuracy ±0.1% Battery Temperature Compensation Coefficient -24 mV/°C Temperature Compensation Range -20~+50 °C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging 65°C (149°F) ELECTRICAL PARTS Input Output Terminal M5 terminals PHYSICAL PARAMETERS Controller Material Plastic, Standard ABS Power Terminal Maximum Stranded Wire Size #10 AWG stranded-5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting Vertical wall mounting IP Grade IP65 Net Weight Approx. 300g/0.66lb ENVIRONMENTAL Operating Temperature -25 ~ 50°C / -13~122 °F Storage Temperature -40 ~ 85°C / -40~185 °F		Restart Voltage for LTO Battery	13.2±0.2VDC
Battery Temperature Compensation Coefficient -24 mV/°C Temperature Compensation Range -20~+50 °C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging 65°C (149°F) ELECTRICAL PARTS Input Output Terminal M5 terminals PHYSICAL PARAMETERS Controller Material Plastic, Standard ABS Power Terminal Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting Vertical wall mounting IP Grade IP65 Net Weight Approx. 300g/0.66lb ENVIRONMENTAL Operating Temperature -25 ~ 50°C / -13~122 °F Storage Temperature -40 ~ 85°C / -40~185 °F		Restart Voltage for LFP Battery	13.4±0.2VDC
Temperature Compensation Range -20~+50 °C (-4°F to 122°F) PROTECTION Over Temperature Protection During Charging 65°C (149°F) ELECTRICAL PARTS Input Output Terminal M5 terminals PHYSICAL PARAMETERS Controller Material Plastic, Standard ABS Power Terminal Maximum Stranded Wire Size #10 AWG stranded-5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting Vertical wall mounting IP Grade IP65 Net Weight Approx. 300g/0.66lb ENVIRONMENTAL Operating Temperature -25 ~ 50°C / -13~122 °F Storage Temperature -40 ~ 85°C / -40~185 °F		Voltage Control Accuracy	±0.1%
PROTECTION Over Temperature Protection During Charging 65°C (149°F) Input Output Terminal M5 terminals Plastic, Standard ABS Power Terminal Maximum Stranded Wire Size #10 AWG stranded-5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting IP Grade IP65 Net Weight Approx. 300g/0.66lb ENVIRONMENTAL CHARACTERISTICS Storage Temperature -40 ~ 85°C / -40~185 °F		Battery Temperature Compensation Coefficient	-24 mV/°C
ELECTRICAL PARTSInput Output TerminalM5 terminalsPHYSICAL PARAMETERSController MaterialPlastic, Standard ABSPower Terminal Maximum Stranded Wire Size#10 AWG stranded-5 mmPower Terminal TorqueUp to 17 in-lb (1.9 N·m)MountingVertical wall mountingIP GradeIP65Net WeightApprox. 300g/0.66lbENVIRONMENTAL CHARACTERISTICSOperating Temperature-25 ~ 50°C / -13~122 °FStorage Temperature-40 ~ 85°C / -40~185 °F		Temperature Compensation Range	-20~+50 °C (-4°F to 122°F)
PHYSICAL PARAMETERS Controller Material Power Terminal Maximum Stranded Wire Size #10 AWG stranded - 5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting IP Grade IP65 Net Weight Approx. 300g/0.66lb ENVIRONMENTAL CHARACTERISTICS Controller Material Plastic, Standard ABS #10 AWG stranded - 5 mm Up to 17 in-lb (1.9 N·m) Vertical wall mounting IP65 Approx. 300g/0.66lb ENVIRONMENTAL CHARACTERISTICS Storage Temperature -25 ~ 50°C / -13~122 °F -40 ~ 85°C / -40~185 °F	PROTECTION	Over Temperature Protection During Charging	65°C (149°F)
Power Terminal Maximum Stranded Wire Size #10 AWG stranded- 5 mm Power Terminal Torque Up to 17 in-lb (1.9 N·m) Mounting Vertical wall mounting IP Grade IP65 Net Weight Approx. 300g/0.66lb ENVIRONMENTAL Operating Temperature -25 ~ 50°C / -13~122 °F CHARACTERISTICS Storage Temperature -40 ~ 85°C / -40~185 °F	ELECTRICAL PARTS	Input Output Terminal	M5 terminals
Power Terminal Torque Mounting IP Grade Net Weight Vertical wall mounting IP65 Net Weight Approx. 300g/0.66lb ENVIRONMENTAL CHARACTERISTICS Operating Temperature Storage Temperature -40 ~ 85°C / -40~185 °F	PHYSICAL PARAMETERS	Controller Material	Plastic, Standard ABS
MountingVertical wall mountingIP GradeIP65Net WeightApprox. 300g/0.66lbENVIRONMENTAL CHARACTERISTICSOperating Temperature-25 ~ 50°C / −13~122 °FStorage Temperature-40 ~ 85°C / −40~185 °F		Power Terminal Maximum Stranded Wire Size	#10 AWG stranded- 5 mm²
IP Grade IP65 Net Weight Approx. 300g/0.66lb ENVIRONMENTAL Operating Temperature -25 ~ 50°C / -13~122 °F CHARACTERISTICS Storage Temperature -40 ~ 85°C / -40~185 °F		Power Terminal Torque	Up to 17 in-lb (1.9 N⋅m)
IP Grade IP65 Net Weight Approx. 300g/0.66lb ENVIRONMENTAL Operating Temperature -25 ~ 50°C / -13~122 °F CHARACTERISTICS Storage Temperature -40 ~ 85°C / -40~185 °F		<u> </u>	·
ENVIRONMENTAL CHARACTERISTICSOperating Temperature-25 ~ 50°C / -13~122 °FStorage Temperature-40 ~ 85°C / -40~185 °F		IP Grade	
ENVIRONMENTAL CHARACTERISTICSOperating Temperature-25 ~ 50°C / -13~122 °FStorage Temperature-40 ~ 85°C / -40~185 °F		Net Weight	Approx. 300g/0.66lb
CHARACTERISTICS Storage Temperature -40 ~ 85°C / -40~185 °F	ENVIRONMENTAL		
Operating Humidity Range 100% no condensation			