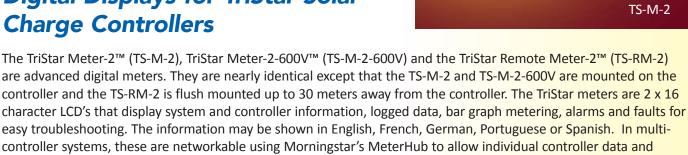


TRISTAR Meters

Digital Displays for TriStar Solar **Charge Controllers**



Key Features and Benefits

Easy to install

- Uses standard 6 conductor RJ-11 connectors
- TS-RM-2 fits a "double gang" electrical box and includes 30 meters (98.4 feet) of cable
- Both data and meterbus power flow over a single cable

aggregate system data to be displayed together on a single meter.

 Network supports up to 15 devices and, optionally, more than one meter per system

Networking capability

- Displays individual controller data from up to 15 TriStars with optional Morningstar MeterHub
- Aggregates system data to show total charge, load and battery charge/discharge state
- Auto detects any device found on the network

Easy to use

 Four directional pushbuttons for easy navigation of display screens

TS-M-2-600V

Backlighting to enhance readability

TS-RM-2

 Meter may be added during initial controller installation, added as an upgrade anytime in the future or connected temporarily for troubleshooting with the ability to use this same meter at other sites

TECHNICAL SPECIFICATIONS

Electrical

 Self-Consumption <0.5W 42.5 mA (backlight on)

Mechanical

116 x 116 mm / 4.56 x 4.56 in TS-RM-2 Mounting Plate **Dimensions**

powder coated steel

0.23 kg / 0.5 lb

0.18 kg / 0.4 lb

0.18 kg / 0.4 lb

RJ-11 (6-pin)

0.13 m / 5 in - 6 conductor

0.35 m/ 14 in - 6 conductor

30 m / 98.4 ft - 6 conductor

60°C rating

- Plate Material
- Weight
 - TS-M-2
 - TS-M-2-600V
 - TS-RM-2
- Connector Type
- TS-M-2 cable
- TS-M-2-600V cable
- TS-RM-2 cable
- Cable Temperature

Environmental

 Ambient Operating Temperature -40 °C to +60 °C LCD Temperature Rating -20 °C to +70 °C Storage Temperature Range -55 °C to +85 °C Humidity Tolerance 5 to 95 % (NC)

 Tropicalization Conformal Coating on both sides of circuit board

Compatibility	TS-M-2	TS-M-2-600V	TS-RM-2
 TriStar 	YES	NO	YES
 TriStar MPPT 	YES	NO	YES
 TriStar MPPT 600V 	NO	YFS	YES

Certifications

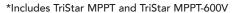
- CE, RoHS and REACH Compliant
- ETL Recognized Component FCC Class B Part 15 Compliant
- ACMA-EMC Compliant
- Manufactured in a Certified ISO 9001 Facility

TS-M-2	TS-M-2-600V	TS-RM-2	
YES	NO	YES	
YES	NO	YES	
NO	YES	YES	
	YES YES	YES NO YES NO	



Displays for TriStar Meter-2, TriStar Meter-2-600V and TriStar Remote Meter-

		TriStar		TSMPPT*			TriStar		TSMPPT*
Operating Data	Solar Charge	Load	Diversion	Solar	Commands	Solar Charge	Load	Diversion	Solar
 Battery Voltage 	Charge	CONTROL	Diversion	Charge	 Reset Ah/kWh Counters 	Charge	COILLIOI	Diversion	Charge
Solar Input Voltage	•			•	Reset Min/Max Battery V	•	•		•
Charging Current	•			•	• Equalize Start/Stop	•		•	•
Load/Diversion Current		•	•		• Load On/Off		•		
Battery Sense Voltage	•	•	•	•	Reset Battery Service				
Battery Temperature	•	•	•	•	Reminder	•	•	•	•
 Battery Min/Max Voltage 	•	•	•	•	User Settings				
Charging Watts	•			•	Set MeterBus Address				•
 Load/Diversion Watts 		•	•		Set Meter Display Language	•	•	•	•
Daily Charge Wh				•	 Set Temperature Units (°C/°F) 	•	•	•	•
 Heatsink Temperature 	•	•	•	•					
·					Logged Data ¹		1t C	0.0	
Settings Data		_	_		Days of Daily Log Data Data Data Data	_	Last 6	0 Days	
Nominal System Voltage Datter Time	•	•	•	•	Battery Voltage Min (Daily)	•	•	•	•
Battery Type Basylation Type	•		•	•	Battery Voltage Max (Daily)	•	•	•	•
Regulation Type	•		•	•	• Charge Ah (Daily)	•			•
Absorption Charge Voltage	•		•	•	• Load Ah (Daily)		•	•	
• Float Charge Voltage	•		•	•	Battery Wh (Daily)				•
Equalize Charge Voltage	•		•	•	• Solar Vmax (Daily)				•
 Low Voltage Disconnect Value 		•			Battery Watts Max (Daily)				•
 Low Voltage Reconnect 					• Time in Absorption (Daily)				•
Value		•			• Time in Float (Daily)				•
 Days Between Equalizations 	•		•	•	• Time in Equalize (Daily)				•
Diagnostic Data					• Faults (Daily)	•	•	•	•
 Ah Total/Since Last Reset 	•	•	•	•	Alarms (Daily)	•	•	•	•
 kWh Total/Since Last Reset 	•	•	•	•	Total System Data (n	nultip	le con	trolle	rs)
 Charge State 	•		•	•	 Charge Current 	•			•
Load State		•			 Load Current 		•		
Fault List	•	•	•	•	 Diversion Current 			•	
Alarm List	•	•	•	•	 Charging Watts 	•			•
 Days Since Last Equalization 	•		•	•	 Charging Ah 	•			•
Days Since Last Battery					Charging Wh	•			•
Service	•		•	•	Load Ah		•		
 Cumulative Hours of Service 	•	•	•	•	 Load Watts 		•		
 Controller Version 	•	•	•	•	 Diversion Watts 			•	
 Meter Version 	•	•	•	•	Diversion Ah			•	
 Mode of Operation 	•	•	•	•					



¹ Logged data available on TriStars with software v13 or later

WARRANTY: Five year warranty period. Contact Morningstar or your authorized distributor for complete terms.

















www.morningstarcorp.com

© 2014 MORNINGSTAR CORPORATION

PRINTED IN USA TS-M2.DAT.09/14.EN