



## TRAILBLAZER SERIES TBS100, TBS170R, TBS170L KITS

MERLIN® PATENTED DESIGN, MILITARY GRADE,  
SOLAR SOLUTIONS OPTIMIZED FOR PORTABLE POWER

### MERLIN® TECHNOLOGY

Industry leading power output | Designed and engineered in USA  
Enhanced performance under all light conditions | Outstanding  
aesthetics | Redundancy by design | Robust module integrity and  
performance under extreme conditions | Military grade design,  
materials and approvals

### PRODUCT FEATURES

Light weight and heavy duty solar module | Emergency power  
anywhere | Intelligent and elegant design | Fully-integrated, patented  
MERLIN® technology | Optimized for maximum performance in  
scattered light & extreme weather conditions

### CUSTOMER BENEFITS




MERLIN® solar system enables portable power & handles emergency  
conditions, increases reliability and increases power availability.  
Simple plug and play solar module and compatible with most charge  
controller brands. Scalable with multiple modules to enable larger  
system. Worldwide deployments in extreme environments.



### CUSTOMER BENEFITS

Portable Power | Light Weight | Rugged and Durable |  
Quick Install | Off-Grid Power System | Offset Hotel Loads

### MERLIN® GRID PATENTED TECHNOLOGY: FLEXIBLE – RUGGED – LIGHTWEIGHT – MONO cSi

-  **80% Lighter**  
than Glass Systems
-  **50X More Durable**  
vs. Bus-Bar Technology
-  **20% More Energy**  
In Real World Conditions
-  **2.5X Power Density**  
vs. Thin Film Technology

## WHAT'S INSIDE THIS KIT?



Outer Box  
Qty:1



Battery Cable  
Qty:1



Home Run Cable  
Qty:2



Merlin Solar® Optimized  
Charge Controller with Fuse  
Qty:1



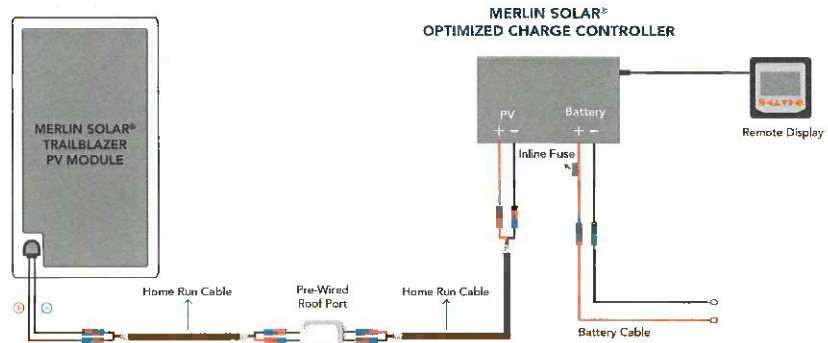
Mounting Hardware  
and Edge Tape  
Qty:1



Pre-Wired  
Roof Port  
Qty:1



Merlin Solar®  
Remote Display  
Qty:1



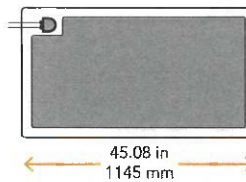
## TECHNICAL SPECS

| Electrical Characteristics (STC) <sup>1</sup><br>MERLIN® PV Module Specs | TBS100 |                              |       | TBS170R |  | TBS170S |  |
|--|--------|------------------------------|-------|---------|--|---------|--|
|  |        |                              |       |         |  |         |  |
| Cell Type  |        | PERC                         |       |         |  |         |  |
| Rated Power (P Max)  | W      | 100                          | 170   | 170     |  |         |  |
| Voltage at Pmax (Vmp)  | V      | 22.9                         | 19.79 | 19.79   |  |         |  |
| Current at Pmax (Imp)  | A      | 4.50                         | 8.59  | 8.59    |  |         |  |
| Open Circuit Voltage (Voc)   | V      | 27.80                        | 23.90 | 23.90   |  |         |  |
| Short Circuit Current (Isc)  | A      | 4.68                         | 9.21  | 9.21    |  |         |  |
| Active Area Efficiency   | %      | 20.42                        | 18.76 |         |  |         |  |
| Temperature Coefficient of Isc   | %/°C   | 0.05                         |       |         |  |         |  |
| Temperature Coefficient of Voc   | %/°C   | -0.33                        |       |         |  |         |  |
| Temperature Coefficient of Pmax  | %/°C   | -0.42                        |       |         |  |         |  |
| Operating Temperature  | °C     | -40 to +85                   |       |         |  |         |  |
| Termination  |        | MC4 connectors come standard |       |         |  |         |  |

1. STC standard test conditions: 1000W/m<sup>2</sup> intensity, Air Mass 1.5, 25°C cell temperature. Power tolerance is +/- 5% W at STC. The electrical characteristics are within +/- 10% unless otherwise specified.  
 2. Specifications are subject to change.  
 3. Panel is designed to be used as an individual unit and not to be connected serially into a large voltage system.

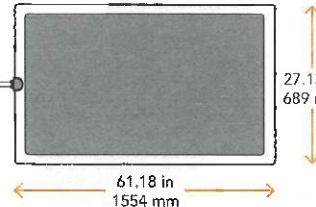
### TBS100

Weight 5.40 lbs | 2.45 kg



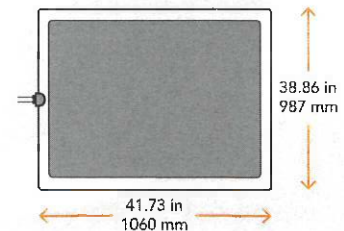
### TBS170R

Weight 9.15 lb | 4.15 kg



### TBS180S

Weight 9.15 lb | 4.15 kg



Read more