



## HEAVY DUTY SOLAR CHARGER & JUMP START AVOIDANCE

MERLIN® PATENTED DESIGN, MILITARY GRADE, SOLAR SOLUTIONS OPTIMIZED FOR CLASS 8 VEHICLES



### MERLIN® TECHNOLOGY

Industry Leading Power Output | Enhanced Performance Under all Light Conditions | Designed and Engineered in USA | Outstanding Aesthetics | Redundancy by Design | Robust Module Integrity and Performance Under Extreme Conditions | Military Grade Design, Materials and Approvals

### PRODUCT FEATURES

Peel & Stick easy to Install Heavy Duty Solar Charger | Jump Start Avoidance | Battery Management Maintenance Free | Fully Integrated MERLIN® Solution with Patented Design, Optimized for Maximum Performance in scattered light & extreme weather conditions with Integrated charge controller.

### CUSTOMER BENEFITS

MERLIN® solar systems can save fuel, effectively eliminate jump starts, extend battery life, increase reliability and increase power available to offset parasitic loads. It also provides drivers with the extra power to run hotel loads reducing the number of auto-start features. **Impressive ROI numbers, Customer Validated, with Thousands of Deployments in North America and Asia.**

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



**80% Lighter**  
than Glass



**50X More Durable**  
vs. Bus-Bar Technology



**20% More Energy**  
In Real World Conditions



**2.5X Power Density**  
vs. Thin Film Technology

#### CUSTOMER BENEFITS

- Increase Profits
- Reduce Operating Expenses
- Reduce Cost of Ownership
- Eliminate Jump Starts
- Minimize use of Auto-Start Feature
- Reduce Maintenance Expenses
- Reduce Vehicle Downtime
- Increase Fuel Savings

## MERLIN® HDJSA165 JUMP START AVOIDANCE TECHNICAL FEATURES

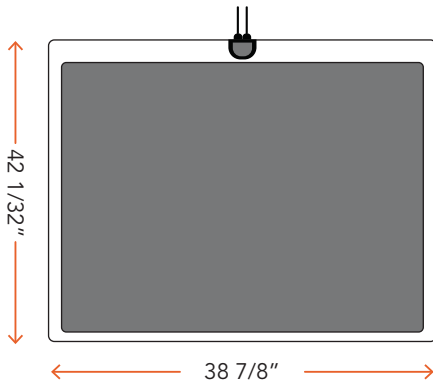
- 165W in 3 Different Options
  - HDJSA165S 6x6 Square form
  - HDJSA165R 4x9 Rectangular form
  - HDJSA165L 2x18 Long form
- Peel & Stick Simple Installation – DIY Friendly
- MERLIN® Optimized Charge Controller for low-light and extreme weather conditions included for all makes and models.
- Hardware Wiring Kit included for all makes and models
- OPTIONAL
  - Power Monitoring System
  - Live data tracking with GPS location
  - Know your fleet battery voltage at all times
  - Set alerts based on performance & potential issues



## TECHNICAL SPECS

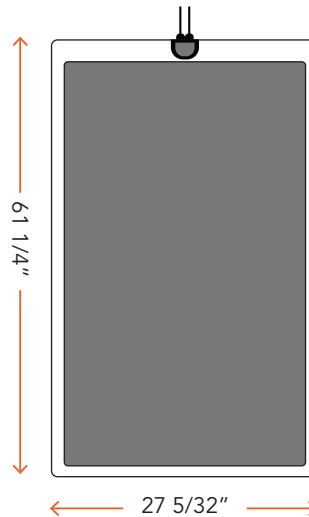
### HDJSA165S

6x6 Square Form 165W



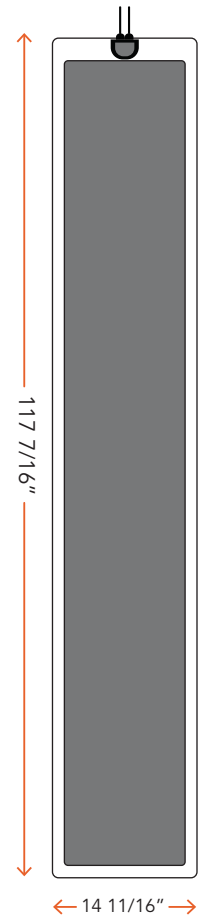
### HDJSA165R

4x9 Rectangular Form 165W



### HDJSA165L

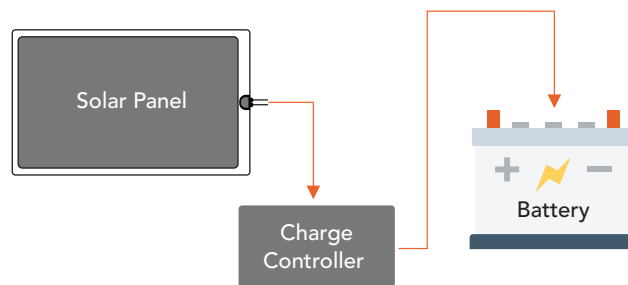
2x18 Long Form 165W



|                        |                  |
|------------------------|------------------|
| Cell Type              | Mono             |
| Number in Series       | 36               |
| Rated Pmax             | 165 Watts        |
| Voltage Pmax           | 18.92 Vdc        |
| Current Imp            | 8.46 Amp         |
| Voc                    | 23.01 Vdc        |
| Isc                    | 8.72 Amp         |
| Active Area Efficiency | 18.19 %          |
| Weight                 | 9.7 to 10.4 lbs. |
| Thickness <sup>2</sup> | 3mm              |
| Battery Voltage        | 12V/24V          |
| Charging Algorithm     | 3-Stage          |
| Datalogging            | Optional         |

1. Specifications are subject to change
2. At the junction box area panel is 21mm high

### SCHEMATIC CIRCUIT



UL Standard 1703  
Testing: Passed

IEC 61215/61730  
Testing: Passed



Read more