

# BERGSTROM SOLAR ENERGY SYSTEMS

## HEAVY DUTY SOLAR CHARGER FOR LIFTGATES

**FLEXIBLE -  
RUGGED -  
LIGHTWEIGHT -  
MONO**



Solar addresses every requirement, provides power, takes care of voltage drops, has built-in temp compensations for adequate charge, can charge starting batteries, eliminates dead battery events. Proper charging vs Inadequate charging via DC to DC converters. Deep discharge cycles are eliminated. Topped off batteries after every cycle. Unused vehicles can be sitting on yards. Always on and ready to bulk, float or equalize. Maintenance free. Cost-Effective, one piece of equipment

- 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





## BETTER SOLAR SOLUTIONS

### TECHNOLOGY:

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

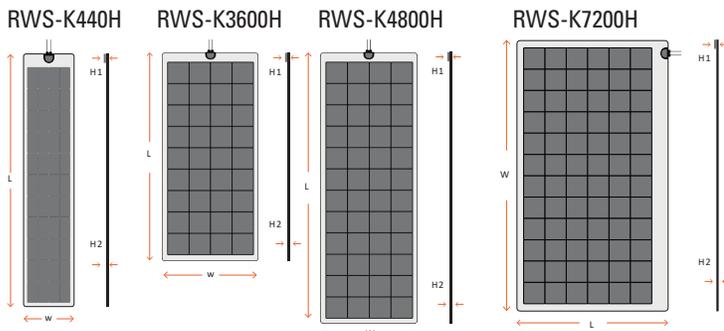
### PRODUCT FEATURES

Maintains & recharges 12V house batteries and liftgate batteries | Charge through optimized charge controller | Operational even on cloudy days | Easy to install, peel & stick flexible solar panels | Built-in diodes in

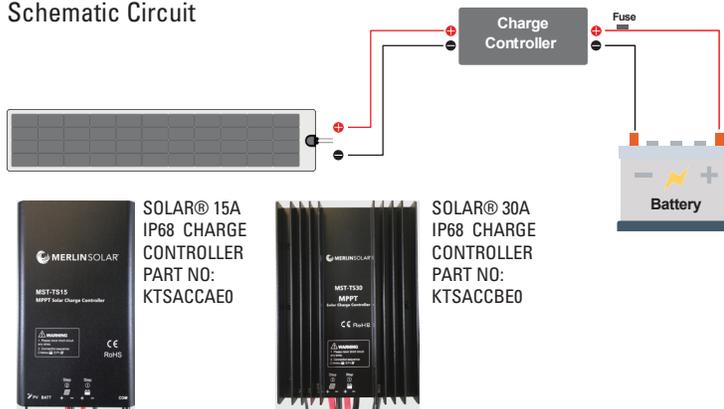
the solar panel to handle shading | Robust grid technology to handle the harsh vibrations of the trailer roof

### CUSTOMER BENEFITS

Maximize the number of liftgate cycles & deliveries per shift/day | Prevents battery drainage as units sit unused | Eliminates "lot rot" | Maintenance free | Increase Profits | Increased Battery Life | Reduce Operating Expenses | Reduce Cost of Ownership | Reduce Vehicle Downtime | Increase Fuel Savings | Offset up to 100% of the liftgate power | Average Battery Voltage Remains Above 13V



### Schematic Circuit



### Applications Chart

KIT NUMBER	RWS-K440H	RWS-K3600H	RWS-K4800H	RWS-K7200H
Lot Rot Prevention	✓	✓	✓	✓
Battery Maintenance	✓	✓	✓	✓
Jump Start Avoidance	✗	✓	✓	✓
Light Duty/Low Volume	✓	✓	✓	✓
Medium Duty/Mid Volume	✗	✓	✗	✓
Heavy Duty/High Volume	✗	✗	✗	✓

### Technical Specs

ELECTRICAL CHARACTERISTICS (STC) <sup>1)</sup> PV MODULE SPECS	UNIT	RWS-K440H	RWS-K3600H	RWS-K4800H	RWS-K7200H
		Top	JBOX LP		
Cell Type		PERC			
Number in Series		44	36	48	2 x 36
Rated Power (Pmax)	W	105	170	230	340
Voltage Pmax	V	24.59	19.79	26.78	19.79
Current Imp	A	4.27	8.59	8.59	17.18
Voc	V	29.22	23.90	31.87	23.90
Isc	A	4.61	9.21	9.21	19.15
Active Area Efficiency	%	18.76	18.76	18.76	18.76

1) STC standard test conditions: 1000W/m2 intensity, Air Mass 1.5, 25oC cell temperature. Power tolerance is +/- 5% W at STC. The electrical characteristics are within +/- 10% unless otherwise specified. Specifications are subject to change.

### Dimensions

Units	RWS-K440H		RWS-K3600H		RWS-K4800H		RWS-K7200H	
	mm / kg	in / lb	mm / kg	in / lb	mm / kg	in / lb	mm / kg	in / lb
Width	376	14 4/5	690	27 5/32	683	26 7/8	1992	78 7/16
Length	1871	73 7/16	1556	61 1/4	2029	79 7/8	1109	43 21/32
Height1	18	11/16	18	11/16	18	11/16	18	11/16
Height2	3.35	1/8	4	1/8	4	1/8	4	1/8
Weight	2.5	5.5	4.15	9.1	5.2	11.5	23.4	51.6

\* Comes with Bergstrom panel, optimized charge controller, wire harness and edge tape.

### Key Components of the Kit

Solar Panel	Flexible solar PV panel array of 105W, 170W, 230W or 340W system
Charge Controller	Optimized IP68 Rating and pre-wired for plug-n-play
Connections	Wiring harness from solar to charge controller to battery
Battery Compatibility	Lead Acid, GEL, AGM or Lithium Ion

