



**samlexsolar®**  
A Division of Samlex America Inc.

# 90-135W



## Portable Charging Kits

Model  
MSK-90  
90 Watts  
MSK-135  
135 Watts

## Design Features

- Each solar module has 36 high efficiency, crystalline solar cells
- Panels are connected in parallel
- Strong, all weather anodized aluminum frame
- High transparency solar glass for max light permeability
- Adjustable aluminum legs for different height angle settings
- Comes with 10 AMP, PWM Design Charge Controller:
  - Automatic 12V / 24V battery detection
  - Battery Type Selection – Flooded / AGM / Gel
  - Bulk, Boost, Float and Equalization modes for fast, optimum and safe charging
  - Temperature compensation to prevent under / over charging
  - Electronic protections: Reverse polarity, overload, short circuit, over charging, over discharging and over temperature
  - Can manage up to 160W of solar power
- Includes carry case and connecting cables, 32'

**25 YEAR POWER WARRANTY on Solar Panels**  
**2 YEAR WARRANTY on Remaining Components**

	MODEL NO.	MSK-135	MSK-90
<b>SOLAR ARRAY</b>	NOMINAL MAXIMUM POWER AT STC, Pmax	135W (3x 45W Modules in parallel)	90W (2x45W Modules in parallel)
	MAXIMUM POWER VOLTAGE, Vmp	17.4V	17.4V
	MAXIMUM POWER CURRENT, Imp	7.74A (2.58A per 45W Module)	5.16A (2.58A per 45W Module)
	OPEN CIRCUIT VOLTAGE, Voc	21.6V	21.6V
	SHORT CIRCUIT CURRENT, Isc	8.52A (2.84A per 45W Module)	5.68A (2.84A per 45W Module)
	TYPE OF CELLS / SIZE	Polycrystalline; 156mm x 156mm / 6.14 x 6.14 in	
	EFFICIENCY	16.8%	16.8%
	NUMBER OF CELLS	36 Cell per 45W Module	36 Cell per 45W Module
	MAXIMUM SYSTEM VOLTAGE	1000 VDC	1000 VDC
	OPERATING TEMPERATURE	- 40°C to +85°C / - 40°F to +185°F	- 40°C to +85°C / - 40°F to +185°F
	INGRESS PROTECTION (IP) RATING	IP 65 (Waterproof)	IP 65 (Waterproof)
	STANDARD TEST CONDITIONS (STC) FOR SOLAR MODULE	Irradiance Level: 1000W/m <sup>2</sup> / Spectrum: AM1.5 / Cell Temperature: 25°C / 77°F	
	<b>CHARGE CONTROLLER (Model: MSK-10A)</b>	TYPE	PWM, Series Type; PWM Frequency 25 Hz
MAXIMUM OPEN CIRCUIT VOLTAGE (Voc) OF SOLAR ARRAY		50V	50V
MAXIMUM SHORT CIRCUIT CURRENT Isc OF SOLAR ARRAY / MAXIMUM CHARGING CURRENT		10A	10A
NOMINAL BATTERY VOLTAGE		12V / 24V Auto sensing: < 18V sensed as 12V and > 18V is sensed as 24V.	
BATTERY TYPE		Lead Acid: Flooded, Sealed AGM, Sealed Gel Cell	
<b>OTHER COMPONENTS / PARAMETERS</b>	INGRESS PROTECTION (IP) RATING	IP 30 (NOT waterproof. Install in dry environment)	
	FUSE AND MATING CONNECTOR FOR BATTERY (ATTACHED TO BATTERY TERMINALS OF CHARGE CONTROLLER)	<b>Fuse:</b> Automotive Blade Fuse Type ATC, 10A <b>Mating Connector for Battery Cable:</b> 50A, Anderson Type SB-50 compatible, 2-Pole Connector	
	CABLE SETS FOR BATTERY	<b>Cable Set 1:</b> 16 ft. for Battery Connection 2 x AWG # 14 (2.5 mm <sup>2</sup> ) / 16 ft., 50A, Anderson Type SB-50 compatible, 2-Pole Mating Connector on one end and Alligator Clips on the other end  <b>Cable Set 2:</b> 16 ft. Extension 2 x AWG # 14 (2.5 mm <sup>2</sup> ) / 16 ft., 50A, Anderson Type SB-50 compatible, 2-Pole Mating Connector on both ends	
<b>DIMENSIONS</b>	OPEN (mm/in)	1651 x 695 x 78 / 65 x 27.36 x 3.07	1102 x 673 x 78 / 43.39 x 26.50 x 3.07
	FOLDED (mm/in)	695 x 545 x 120 / 27.36 x 21.46 x 4.72	673 x 563 x 78 / 26.50 x 22.17 x 3.07
<b>WEIGHT</b>	WITH BAG & CABLES (kg/lbs)	17.9 Kg / 39.46 lbs.	12.44 Kg / 27.43 lbs.
	WITHOUT BAG (kg/lbs)	15.5 Kg – 34.17 lbs.	10.5 Kg – 23.15 lbs.

NOTE: Specifications are subject to change without notice

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