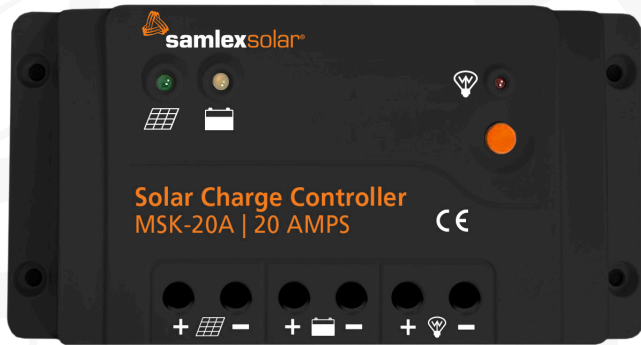




# samlexsolar®

# 20A



### Charge Controller

Model  
MSK-20A  
20 Amps

### Design Features

- 3 stage intelligent Series Type PWM charging
- Automatic battery voltage detection: 12V / 24V
- 100% input and output within -35°C to 50°C
- Electronic protections: overheating, overcharging, over discharge, overload and short circuit
- Reverse protection any combination of solar module and battery
- Optional MSK-TS External Temperature Sensor

### 2 YEAR LIMITED WARRANTY



PARAMETER		SPECIFICATIONS		
		12V	24V	
CHARGE CONTROLLER	TYPE OF CHARGING CONTROL	Series Type, PWM control, PWM Frequency: 25Hz		
	BATTERY TYPE	Factory preset for Sealed Lead Acid (AGM)		
	BATTERY SYSTEM VOLTAGE	12V / 24V Nominal; Auto Sensing (<18V sensed as 12V / >18V sensed as 24V)		
	WORKING VOLTAGE RANGE OF CHARGE CONTROLLER	8V to 32V		
	RATED BATTERY CHARGING CURRENT	Up to 20A		
	RATED CURRENT ON LOAD TERMINALS	20A		
	CHARGE CIRCUIT VOLTAGE DROP	≤ 0.28V		
	CHARGE CIRCUIT VOLTAGE DROP	≤ 0.28V		
	DISCHARGE CIRCUIT VOLTAGE DROP	≤ 0.20V		
	SELF CONSUMPTION	≤ 8.4mA for 12V battery / 7.8mA for 24V battery		
	CHARGING STAGES	Bulk, Absorption, Float		
	CHARGING PROFILE	Bulk Stage → Absorption Stage → Float Stage		
	BULK STAGE CURRENT	Equal to Instantaneous Short Circuit Current I <sub>sc</sub> of the Solar Panel(s) / Maximum 20A		
	ABSORPTION STAGE VOLTAGE	14.4V	28.8V	
	ABSORPTION STAGE DURATION	2 Hrs		
	FLOAT STAGE VOLTAGE	13.8V	27.6V	
	AUTOMATIC RESET TO ABSORPTION STAGE	13.2V	26.4V	
	CHARGING LIMIT VOLTAGE	15.0V Auto Reset: 14.5V	30.0V Auto Reset: 29.0V	
	DISCHARGING LIMIT VOLTAGE	10.6V	21.2V	
	OVER VOLTAGE DISCONNECT VOLTAGE	16.0V Auto Reset at 15.0V	32.0V Auto Reset at 30.0V	
	UNDER VOLTAGE WARNING	12.0V Auto Reset at 12.2V	24.0V Auto Reset at 24.4V	
	LOW VOLTAGE DISCONNECT (DISCONNECT LOAD)	11.1V Auto Reset at 12.6V	22.2V Auto Reset at 25.2V	
	BATTERY TEMPERATURE COMPENSATION COEFFICIENT	BUILT-IN TEMP SENSOR	-18mV/°C	-36mV/°C
		EXTERNAL TEMP SENSOR		

NOTE: Specifications are subject to change without notice.

Over ►



**samlexsolar**<sup>®</sup>

# 20A

**Charge  
Controller**

Model  
**MSK-20A**  
20 Amps

PARAMETER		SPECIFICATIONS	
		12V	24V
<b>INPUT – SOLAR PANEL(S) / ARRAY</b>	MAXIMUM OPEN CIRCUIT VOLTAGE	50V	
	MAXIMUM SHORT CIRCUIT CURRENT	20A	
<b>INPUT / OUTPUT CONNECTIONS</b>	TYPE OF CONNECTORS	Moving Cage Type for 10mm <sup>2</sup> / Up to AWG #8 wire size	
<b>PROTECTIONS</b>	PROTECTIONS	Solar panel over current; solar panel short circuit; solar panel reverse polarity; Battery reverse polarity; Battery over voltage; Controller / Battery overtemperature; Overload and short circuit protections on Load Terminals	
<b>COMPLIANCE</b>	COMPLIANCE MARKING	CE Marked	
	SAFETY STANDARDS	IEC 62109-1:2010 IEC 62109-2:2011	
	ELECTRO MAGNETIC COMPATIBILITY (EMC STANDARDS)	Emissions : EN61000-6-3 Immunity: EN61000-6-1	
	RoHS STANDARD	RoHS Directive 2011/65/EU	
<b>ENVIRONMENTAL</b>	OPERATING TEMPERATURE	-35°C to 50°C	
	STORAGE TEMPERATURE	-35°C to 80°C	
	HUMIDITY	≤ 95% Non Condensing	
	INGRESS PROTECTION (IP) RATING OF ENCLOSURE	IP-30 (NOT waterproof)	
<b>MECHANICAL</b>	OVERALL DIMENSIONS	159.6 x 81.4 x 47.88 mm	
	WEIGHT	0.3 kg	

NOTE: Specifications are subject to change without notice.