

HDM's SC-4872E-5A Solar Charger incorporates an advanced MPPT technology to optimize power harvesting during various weather conditions. 3-Stage 5ADC solar charger converts solar energy into electricity and rapidly recharges the batteries while extending battery life. Utilizing an intelligent microprocessor, the charger allows a high rate of charge to the battery without overheating the battery, thereby significantly reducing charge time.

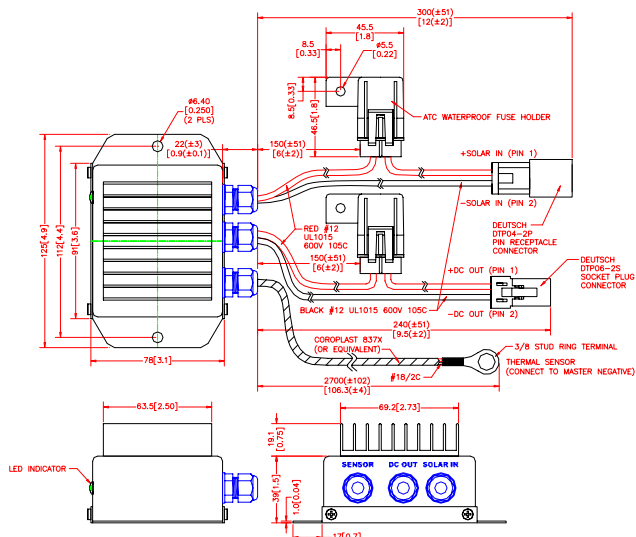
3-STAGE WITH TEMPERATURE DERATED CHARGE FOR AGM			
ELECTRICAL	CHARGE METHOD	BULK:	MAXIMUM CHARGING CURRENT TO BATTERY. DURATION DEPENDS ON AHR RATING.
		ABSORPTION:	CONSTANT ABSORPTION VOLTAGE. DURATION DEPENDS ON AHR RATING.
		FLOAT:	CONSTANT FLOAT VOLTAGE WITH LOAD CURRENT ON DEMAND.
	INPUT VOLTAGE RANGE		39.5 ~ 75VDC
	MAXIMUM PV OPEN CIRCUIT VOLTAGE ¹		75VDC
	MAXIMUM PV CURRENT		8.7ADC
	INPUT UNDER-VOLTAGE PROTECTION		<35VDC
	INPUT OVER-VOLTAGE PROTECTION		>76VDC
	MINIMUM OUTPUT OPERATING VOLTAGE		60VDC
	MAXIMUM CHARGE CURRENT		5ADC
	CURRENT LIMITING RANGE		5ADC
	REGULATION VOLTAGE		60 ~ V _{ABSORPTION} VDC
	STANDBY POWER		<0.1W
	INPUT FUSE		15ADC
	OUTPUT FUSE		10ADC
	OUTPUT MAXIMUM VOLTAGE		V _{ABSORPTION} =83.3VDC ²
	OUTPUT OVER-VOLTAGE PROTECTION		=V _{ABSORPTION} +2V
	OVERLOAD PROTECTION		EXTERNAL FUSE
	SHORT CIRCUIT PROTECTION		EXTERNAL FUSE
MECH	DIMENSIONS		125 x 78 x 58mm (LxWxH)
	WEIGHT		1 LB
	CONSTRUCTION		ALUMINUM ENCLOSURE IN BLACK ANODIZED FINISH
INTRF	SOLAR INPUT		300mm PAIR 12AWG CABLES WITH DEUTSCH PIN RECEPTACLE CONNECTOR
	DC OUTPUT		240mm PAIR 12AWG CABLES WITH DEUTSCH SOCKET PLUG CONNECTOR
	THERMAL SENSOR		2700mm 18AWG/2C CABLE WITH 3/8 RING TERMINAL
ENVIRON	COOLING		NATURAL CONVECTION
	OPERATING TEMPERATURE		-40 ~ +50°C
	STORAGE TEMPERATURE		-40 ~ +85°C
	WARRANTY		1 YR

Specifications typical at 25°C unless otherwise stated and are subject to change without notice.

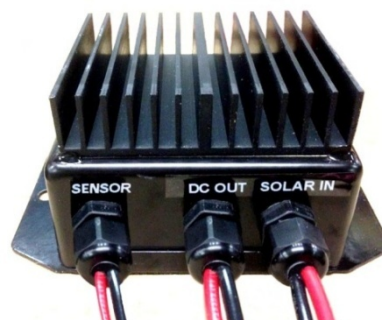
¹ Battery voltage must be greater than PV voltage.

² Typical absorption voltage is 83.3VDC at 25°C. Formula for maximum output voltage: =84-((T_{BATTERY}-20)x0.14)

³ SC-4872E-5A solar charger will auto-recover and restart when parameters are within operating limits and LED will return to blink Green.



All dimensions in millimeters[inches] unless otherwise specified.



(Heatsink appearance may vary - refer to mechanical drawing)

STANDARD FEATURES

- ♦ 5ADC MAXIMUM OUTPUT CURRENT
- ♦ 3-STAGE CHARGING METHOD
- ♦ AUTO-RESTART MODE
- ♦ INPUT UNDER-VOLTAGE PROTECTION
- ♦ INPUT OVER-VOLTAGE PROTECTION
- ♦ CURRENT LIMITING
- ♦ OVERLOAD PROTECTION
- ♦ OUTPUT SHORT CIRCUIT PROTECTION
- ♦ TEMPERATURE DERATED CHARGE
- ♦ TEMPERATURE COMPENSATION
- ♦ AUTO MAINTENANCE MODE
- ♦ MPPT (MAXIMUM POWER POINT TRACKING)
- ♦ LED STATUS INDICATOR

MODE	LED	LED INDICATOR	CONDITION
OFF		Blank	1) Disconnected from Batteries -or- 2) Input Low Voltage Shutdown
Bulk Charge		Blink Green 1 sec ON / 1 sec OFF	Maximum Charge Current 5A
Absorption Charge ²		Blink Green 1 sec ON / 1 sec OFF	Maximum Charge Voltage =84-((T _{BATTERY} -20)x0.14)
Float Charge		Steady Green	Constant Float Voltage =(V _{ABSORPTION} -1.8V)
Input Over Voltage Auto Shutdown ³		Steady Red	PV Voltage >76V
Output Over Voltage Auto Shutdown ³		Blink Red 0.5 sec ON / 0.5 sec OFF for 5 sec	Battery Voltage >(V _{ABSORPTION} +2V)



Connection Block Diagram for SC-4872E-5A

MODEL	CHARGE VOLTAGE / CURRENT	DESCRIPTION
SC-4872E-5A	83.3VDC / 5ADC	ENCAPSULATED
ADD SUFFIX AFTER MODEL NAME FOR OPTIONAL FEATURES AND ACCESSORIES.		
MPPT	MPPT (MAXIMUM POWER POINT TRACKING)	
CABLE-12/2C-DTP06-122	122" (3100mm) SOLAR IN JUMPER CABLE WITH MC4 TO DEUTSCH SOCKET CONNECTOR	