

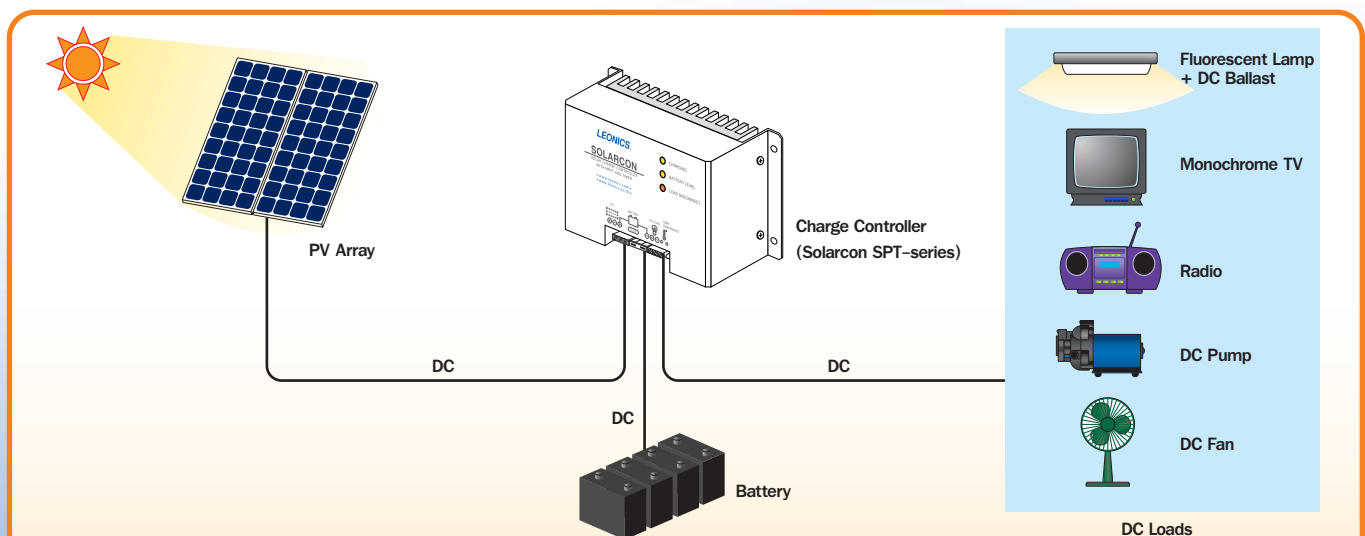
## SOLARCON SPT

### SOLAR CHARGE CONTROLLER WITH MPPT AND DC LOAD TIMER 10A



- Advanced microprocessor control
- Buck regulator wide input range
- Maximum Power Point Tracking (MPPT)
- Solar charge controller with DC load control
- 3 Step charging to provide quick and safe charging for battery
- Temperature compensation (-3 to -7 mV/cell/celsius)
- Reverse polarities protection for PV and battery
- Capable to use with high  $V_{mp}$  PV (A-Si PV)
- Over charge and over discharge protection
- 7 modes timer control (ON/OFF DC load) selectable
- Automatic cooling fan (outside enclosure)
- Lightning surge protect
- Comply with CISPR11 Class B standard (option)
- C-tick compliance for EMC
- ISO 9001 and ISO 14001 certified

Timer Mode	DC Load Status	
	Sunrise	Sunset
0	OFF →	ON 4 hrs. OFF →
1	OFF →	ON 4 hrs. OFF 5 hrs. ON →
2	OFF →	ON →
3	OFF →	Blink (for Obstruction light)
4	ON 4.5 hrs - OFF →	
5 (default)	ON →	
6	ON →	OFF →



Where power demand is small and a stand alone power system is needed, the DC-Solar System is a good solution. Particularly suitable for small households, religious retreats, security outposts, small schools and remote clinics the DC-Solar System can provide reliable power for DC appliances such as lights, radio, TV, fans and pumps. And built-in Maximum Power Point Tracking (MPPT) to maximize power generated by solar modules (PV). It can supply 10 A maximum DC current to DC load. The SOLARCON SPT-series also provide 7 modes of timer operation for control

### SPECIFICATIONS

MODEL		SPT-1206	SPT-1212	SPT-1220	SPT-1230	SPT-2412	SPT-2420	SPT-2430	SPT-4812	SPT-4820	SPT-4830	
PV INPUT	Maximum input power (W)	80 W	160 W	240 W	400 W	320 W	520 W	800 W	520 W	1000 W	1600 W	
	Maximum open circuit voltage ( $V_{oc}$ )	96Vdc							192 Vdc			
	MPPT tracking voltage range ( $V_{mp}$ )	26 - 75 Vdc					30 - 75 Vdc			65 - 150 Vdc		
DC OUTPUT TO BATTERY (at 25 °C)	Nominal battery voltage	12 Vdc				24 Vdc				48 Vdc		
	Boost charging voltage* (LA / VRLA)	15.0 V $\pm$ 0.2 / 14.2 V $\pm$ 0.2				30.0 V $\pm$ 0.4 / 28.4 V $\pm$ 0.4				60.0 V $\pm$ 0.8 / 56.8 V $\pm$ 0.8		
	Float charging voltage* (LA / VRLA)	13.8 V $\pm$ 0.2 / 13.5 V $\pm$ 0.2				27.6 V $\pm$ 0.4 / 27.0 V $\pm$ 0.4				55.2 V $\pm$ 0.8 / 54.0 V $\pm$ 0.8		
	Low battery disconnect voltage	10.8 V $\pm$ 0.2				21.6 V $\pm$ 0.4				43.2 V $\pm$ 0.8		
	Battery reconnection voltage	12.5 V $\pm$ 0.2				25.0 V $\pm$ 0.4				50.0 V $\pm$ 0.8		
	Maximum charging current (A)	6 A	12 A	20 A	30 A	12 A	20 A	30 A	12 A	20 A	30 A	
DC LOAD CONTROL	Nominal voltage	12 V				24 V				48 V		
	Maximum current	10 A										
	Protection	Over voltage disconnected and short circuit (Type electronics switch not moving parts and no contact surface)										
PROTECTION		High battery voltage / Overcharge and overdischarge										
		PV transient voltage surge										
		PV reverse polarity / Battery reverse polarity										
	Approx. Power Consumption	less than 25 mA							less than 35 mA			
INDICATOR	LED	Charging (green), Battery status (yellow), Low battery / Low voltage disconnect (red)										
BATTERY	Type (Selectable)	Deep Cycle Lead Acid (LA) or Sealed Lead Acid (VRLA)										
VENTILATION	Automatic cooling fan (outside enclosure)	no	no	no	yes	no	no	yes	no	yes	yes	
OPERATING CONDITION	Temperature	0 - 45°C										
	Relative humidity	0 - 95 % (non-condensing)										
DIMENSION	W x H x D (mm.)	160 x 92 x 65				192 x 210 x 115						
WEIGHT	Approximate in kg.	0.9	2.8		3.0	2.8		3.0	2.8	3.0		

\* The default charge voltage setting are based on typical deep cycle lead acid battery system. To change these setting for sealed lead acid battery system, please follow the instruction in user's guide. Continuous product development is our commitment. In that manner, the above specifications may be changed without prior notice.

#### Authorized Distributor:

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