

Harness the power of the sun

Su-Kam
Ek nayi soch

SOLAR-MATE
MPPT SOLAR CHARGE CONTROLLER



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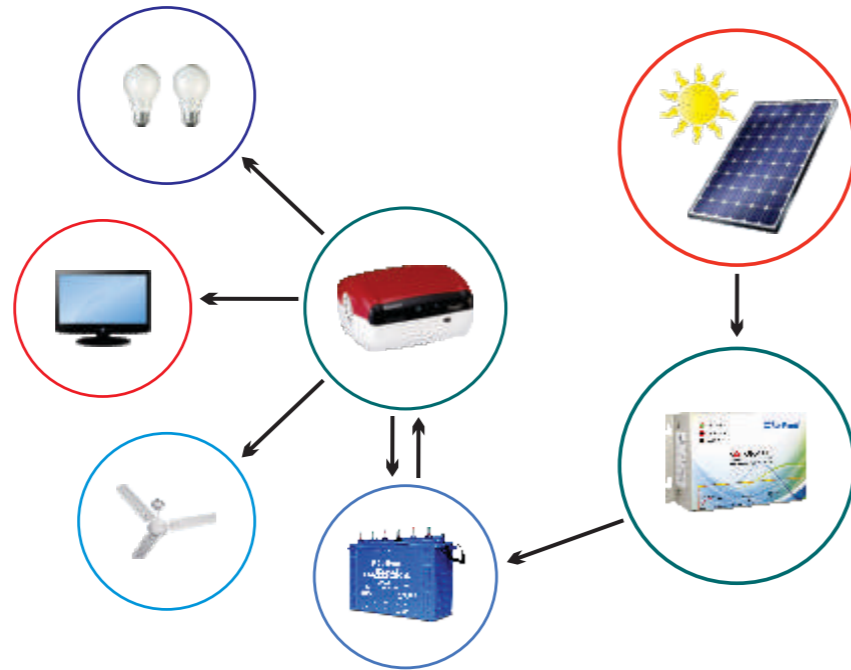
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COMMAND POWER

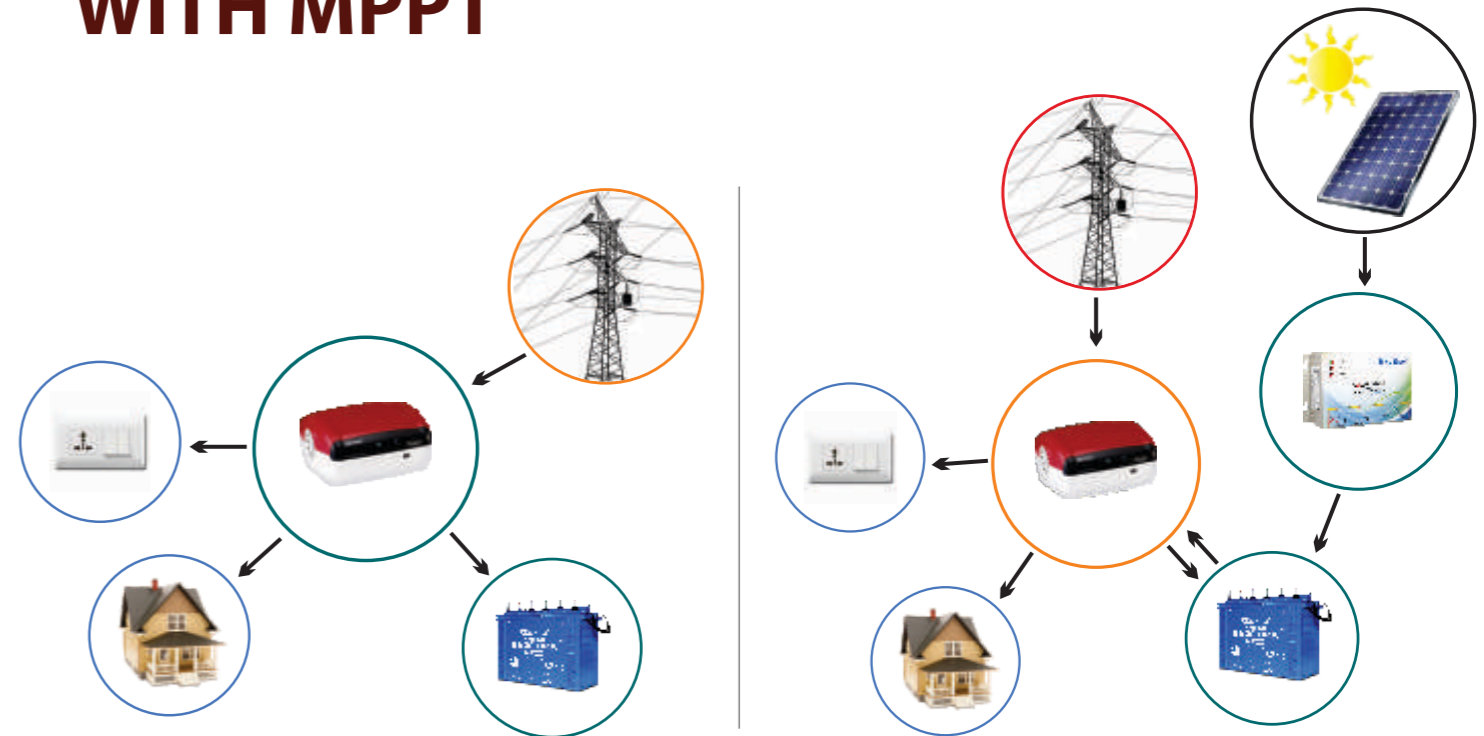
CONTROL WASTES

SOLAR CHARGE CONTROLLER

















Solar Charge Controller Controls the variation of power produced from Solar PV to charge the battery as well as run DC loads.







CONVERT ANY INVERTER INTO SOLAR INVERTER WITH MPPT



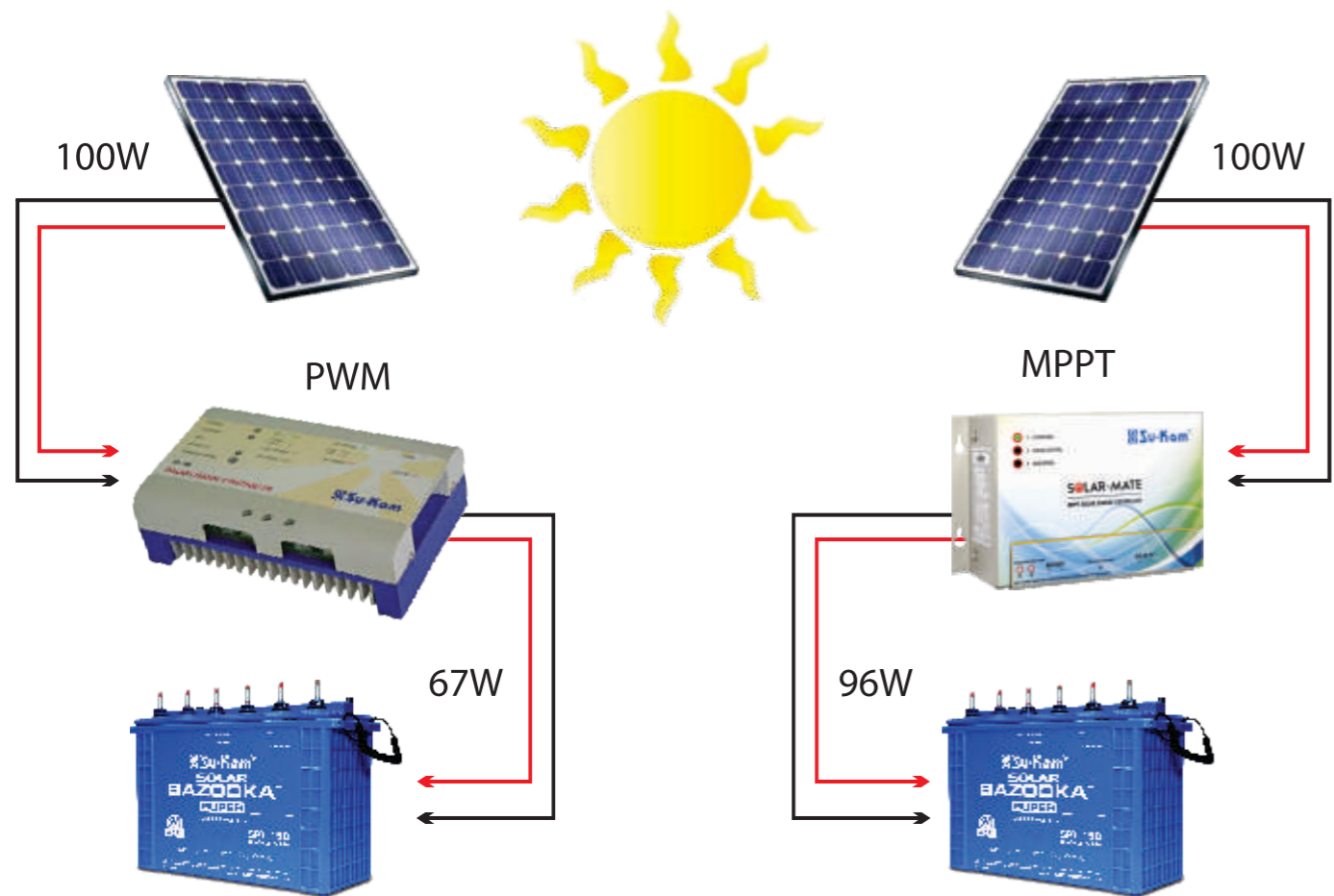
Load VS Backup time Chart

Solar Panel	Battery	Load	Backup Time
100 Wp	12V/50 AH	 25W  25W, 14'  5W  5W	Upto 8-9 Hrs
150 Wp	12V/100 AH	 25W  25W, 14'  5W  5W	Upto 15-16 Hrs
200 Wp	12V/150 AH	 25W  25W, 14'  5W  5W	Upto 22-23 Hrs
200 Wp	12V/180 AH	 25W  25W, 14'  5W  5W	Upto 30-32 Hrs

TYPES OF SOLAR CHARGE CONTROLLERS

			
12V/24V-20A	12V/24V-20A	12V/24V-17A	12V/24V-27A
MPPT SOLAR CHARGE CONTROLLER	MPPT SOLAR CHARGE CONTROLLER WITH LOAD CONTROLLER	MPPT SOLAR CHARGE CONTROLLER WITH LOAD CONTROLLER	MPPT SOLAR CHARGE CONTROLLER WITH LCD DISPLAY
Maximum Power Point Tracking (MPPT) is an Electronic System Which Draws the Maximum Power available from Photovoltaic Module to Charge Module in order to Charge the Battery.	Maximum Power Point Tracking (MPPT) is an Electronic System Which Draws the Maximum Power available from Photovoltaic Module to Charge Module in order to Charge the Battery. Customer can run the DC load as well. It charges the battery maximum by 20A.	Maximum Power Point Tracking (MPPT) is an Electronic System Which Draws the Maximum Power available from Photovoltaic Module to Charge Module in order to charge the battery. It also provides an option to the end user to DC appliances directly from the charge controller	Maximum Power Point Tracking (MPPT) is an Electronic System Which Draws the Maximum Power available from Photovoltaic Module to Charge Module in order to charge the battery. It also provides an option to the end user to DC appliances directly from the charge controller

BENEFITS OF MPPT OVER PWM

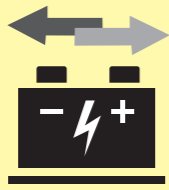


PWM Charge Controller takes input from solar panel but delivers the power partially to the battery

MPPT Charger takes input from the panel and delivers maximum power to the battery. High light 30% increase in power

SALIENT FEATURES OF MPPT TECHNOLOGY

 <p>30% MORE SAVINGS WITH MPPT</p>	 <p>ATC Technology Increase Battery life upto 30%</p>	 <p>6-STAGE BATTERY CHARGING PROCESS</p>
<p>MPPT CHARGE CONTROLLER TRACKS THE MAXIMUM POWER GENERATED BY SOLAR PANELS AND TRANSFERS THE SAME TO THE BATTERY WITH MINIMAL INTERNAL LOSSES.</p>	<p>THE IN-BUILT SENSOR IN MPPT SENSES THE OUTSIDE TEMPERATURE AND REGULATES BATTERY CHARGING I.E. OVER-CHARGING OR UNDER-CHARGING BY CONTROLLING THE BOOST VOLTAGE OF THE BATTERY.</p>	<p>MPPT USES DT-6S SIX STAGE CHARGING TECHNOLOGY FOR EFFICIENT CHARGING AND LONGER BATTERY LIFE.</p>
 <p>AUTOMATIC BATTERY SWITCHING</p>	 <p>EQUALISATION</p>	 <p>4th GENERATION Microprocessor</p>
<p>THE MPPT CHARGE CONTROLLER ENABLES THE CUSTOMER TO AUTOMATICALLY SWITCH FROM ONE BATTERY SYSTEM TO A DOUBLE BATTERY SYSTEM WITHOUT CHANGING THE CHARGE CONTROLLER.</p>	<p>THE ADVANCED SOLAR CHARGING TECHNOLOGY IN MPPT SMARTLY GENERATES VOLTAGE TO SHAKE THE BATTERY ELECTROLYTE TO ENSURE EFFICIENT CHARGING.</p>	<p>THE INTELLIGENT MICRO PROCESSOR IN MPPT CONTROLS ALL THE INTERNAL PROCESSES SMOOTHLY.</p>
 <p>PV HIGH CURRENT PROTECTION</p>	 <p>OUTPUT OVERLOAD/ SHORT CIRCUIT PROTECTION</p>	 <p>REVERSE BATTERY CURRENT FLOW PROTECTION AT NIGHT</p>
<p>THE SOLAR CHARGE CONTROLLING DEVICE IN MPPT REGULATES BATTERY CURRENT AND PROVIDES POWER VOLTAGE HIGH CURRENT PROTECTION.</p>	<p>THE MICRO CONTROLLER AND DIGITAL SIGNALING PROCESSING IN MPPT CHARGE CONTROLLER PROVIDES OVERLOAD AND SHORT CIRCUIT PROTECTIONS.</p>	<p>MPPT SOLAR CHARGE CONTROLLER PROTECTS THE REVERSE BATTERY CURRENT FLOW FROM THE BATTERY TO SOLAR ARRAY AT NIGHT.</p>



REVERSE BATTERY CONNECTION

THE MICRO-CONTROLLER IN MPPT HELPS PROTECT AGAINST REVERSE POLARITY OF THE BATTERY



BATTERY HIGH VOLTAGE PROTECTION

MICRO CONTROLLER AND DIGITAL SIGNALING PROCESSING TECHNOLOGY IN MPPT SAVES BATTERY DURING HIGH VOLTAGE CONDITION.

MORE SAVINGS WITH MPPT

PWM

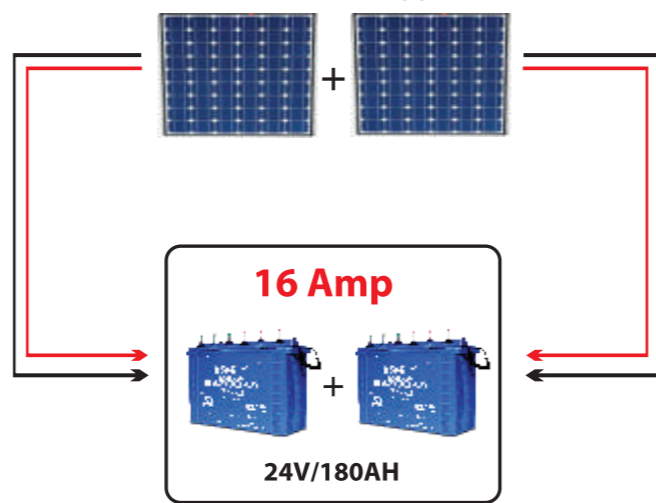
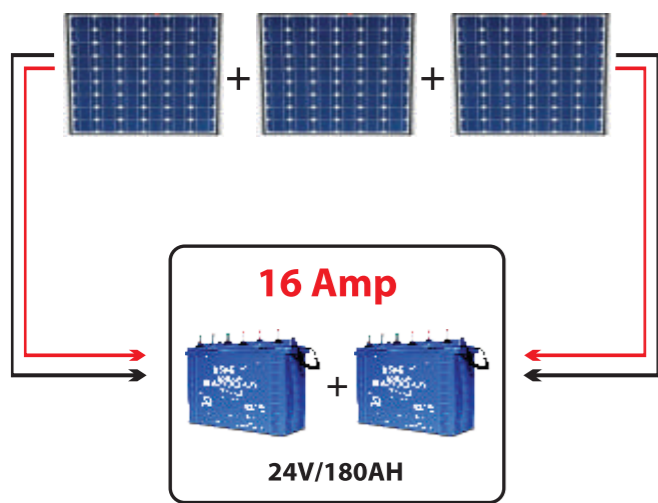


MPPT



200W + 200W + 200W

200W + 200W



SAVE UPTO 30% MORE

Same amount of power is generated by MPPT with 2 panels while PWM uses 3 panels. Save more money and power with MPPT.

AUTOMATIC TEMPERATURE COMPENSATION



0°

Freezing Temperature Condition



72% Charge



10°

Low Temperature Condition



85% Charge



25°

Normal Temperature Condition

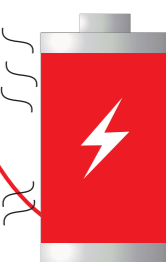


100% Charge



40°

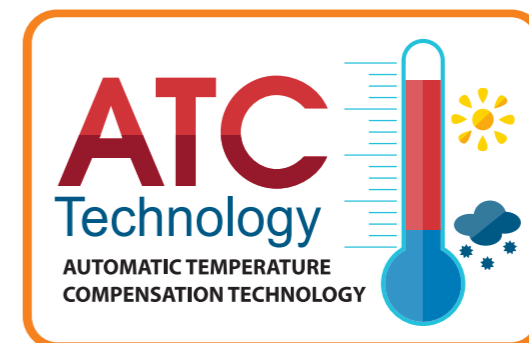
High Temperature Condition



108% Charge

ATC involves a hi-tech sensor, which senses the outside ambient temperature and accordingly adjusts the charging of batteries. The sensor automatically controls over-charging and under-charging, increases the battery life by at least 6 months and provides excellent battery back-up.

Su-Kam's First Home UPS with ATC Technology senses the outside temperature and accordingly adjusts charging of batteries.



ATC Sensor is kept close to the battery bank that determines battery temperature and automatically adjust the target boost voltage.

This new charging system monitors the battery temperature and automatically regulates the boost voltage.

CONTROLS OVER/UNDER CHARGING

INCREASES BATTERY LIFE BY ATLEAST 6 MONTHS

This automatic sensor controls over-charging and under-charging thereby provides excellent battery back-up and increases battery life by at least 6 months.

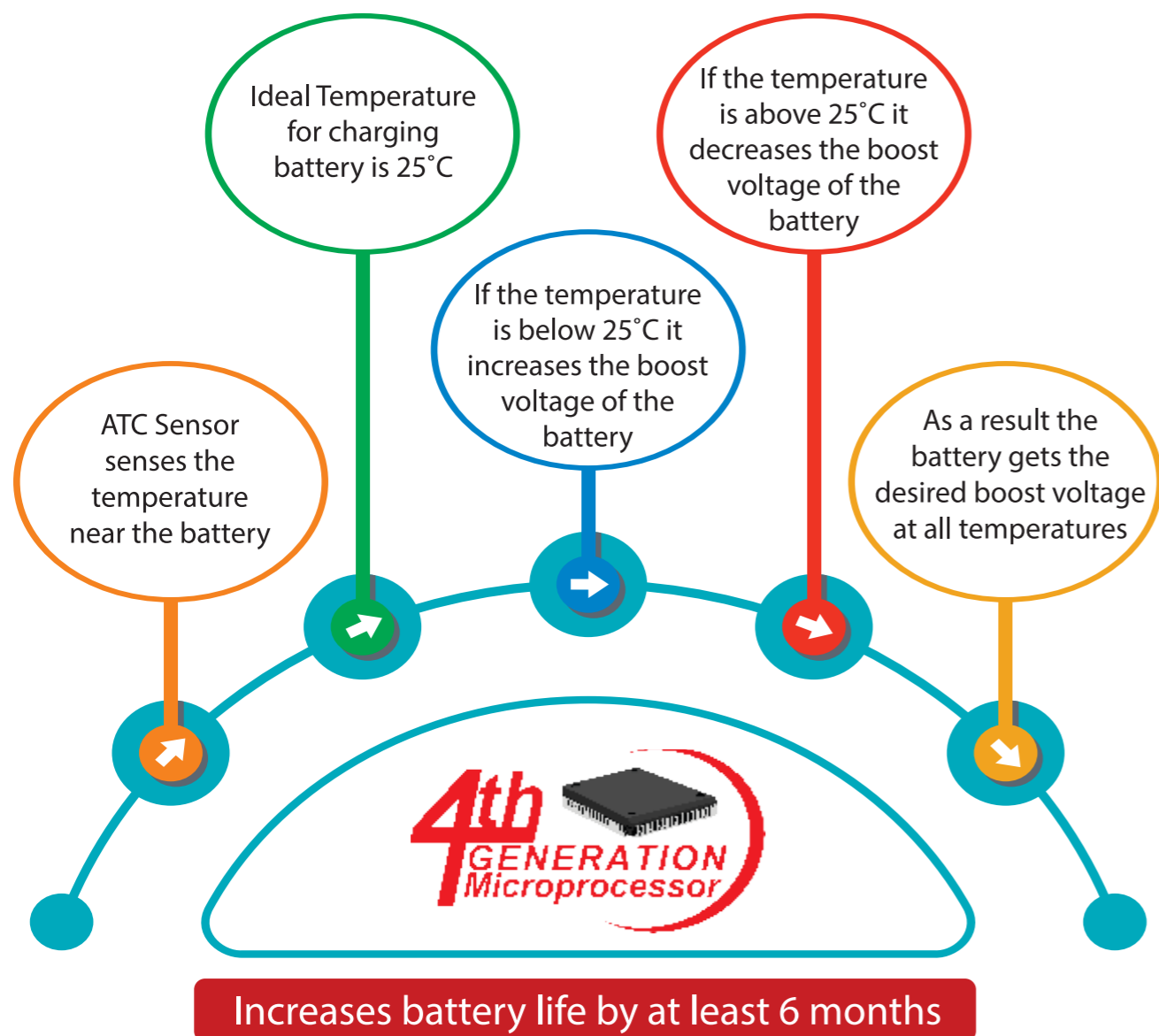
BENEFITS OF ATC TECHNOLOGY

1
Controls over-charging and under-charging of battery

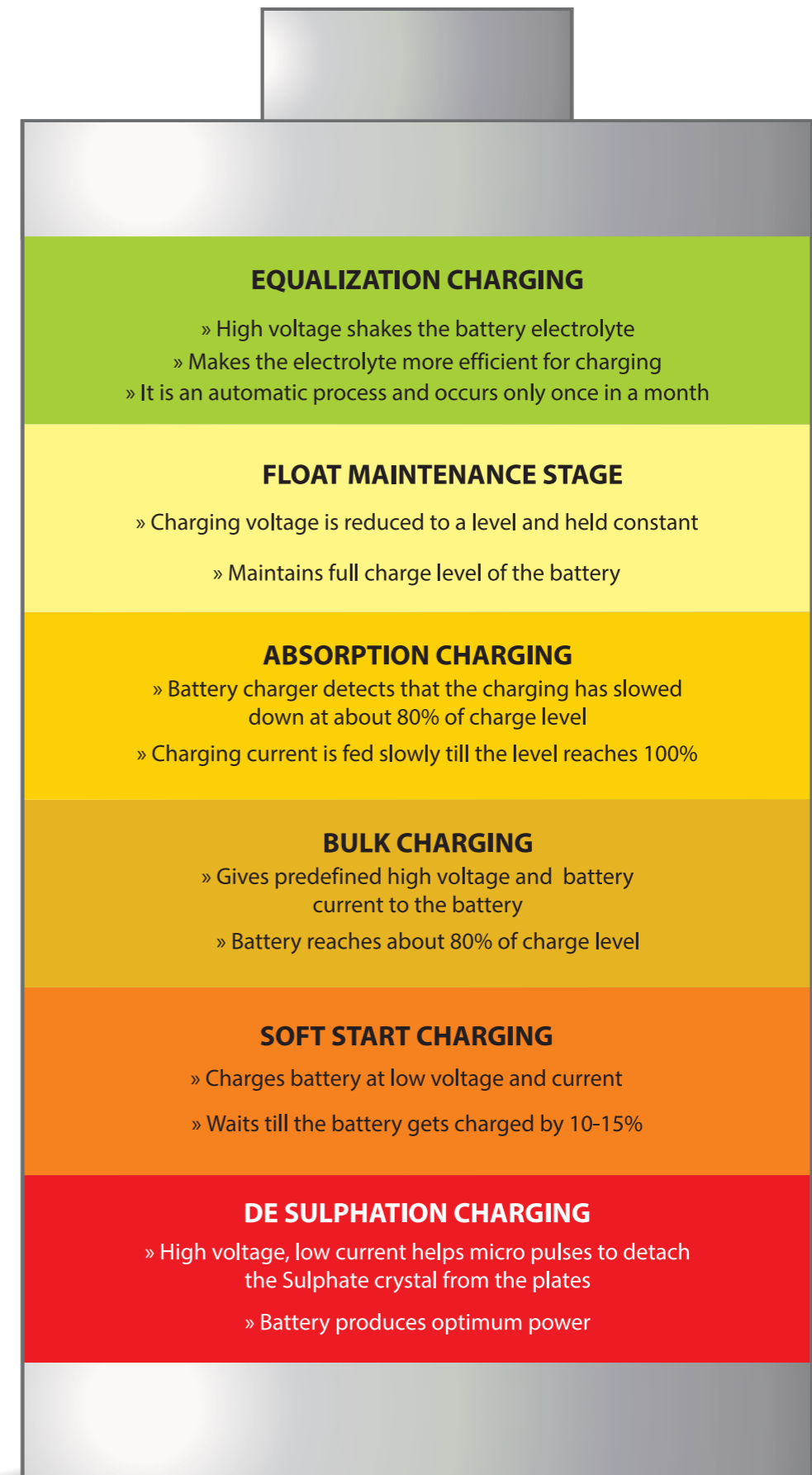
2
Low Energy Wastage

3
Increases battery life by at least 6 months

THE WORKING PROCESS



DT-6S : 6 STAGE BATTERY CHARGING TECHNOLOGY



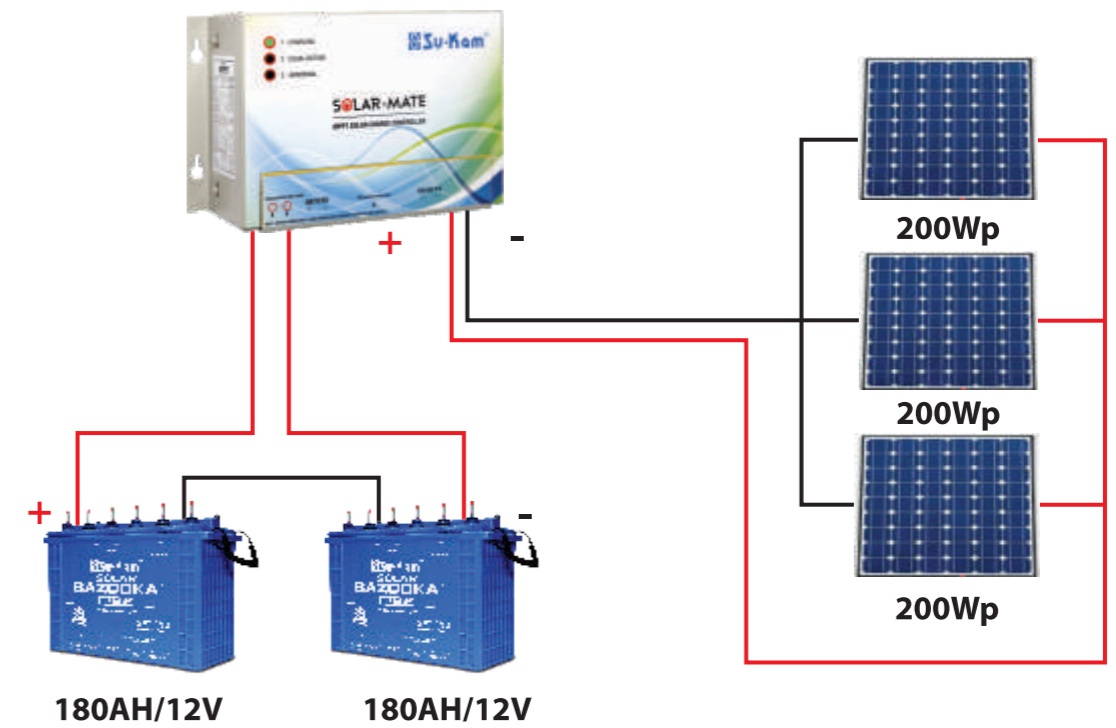
REVERSE BATTERY CURRENT FLOW PROTECTION AT NIGHT

The MPPT charge controller restricts the reverse battery current flow from battery to solar panel during night time

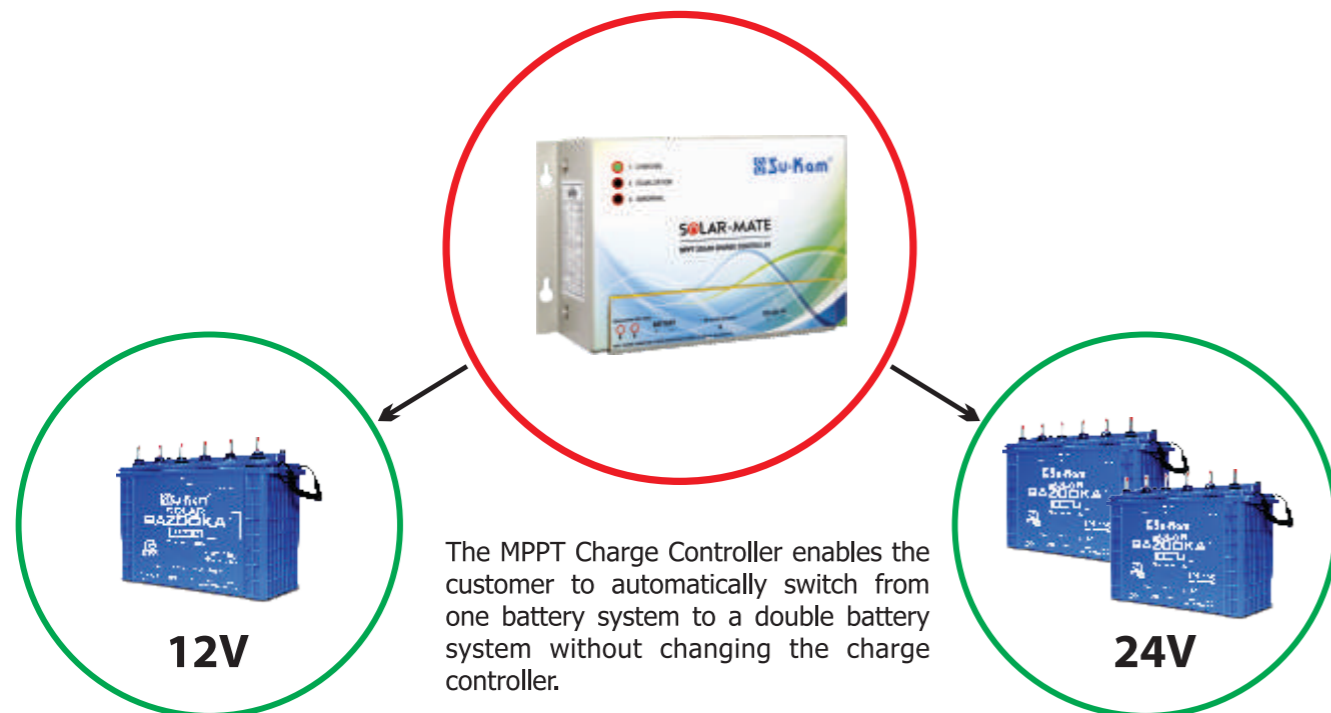


SOLAR PANEL OPTION FOR 24V/20A

Maximum PV Module Can be Installed = 600/700Wp, 60/72 Cells



AUTOMATIC BATTERY SWITCHING



The MPPT Charge Controller enables the customer to automatically switch from one battery system to a double battery system without changing the charge controller.

Backup time with 100AH Battery & 150Wp module (12V DC Load)

