

rMPPT™ SOLAR CHARGE CONTROLLER

“Convert your Higher Rating Inverter
into Solar Inverter”



Available in
12V/10A to 240V/60A

FEATURES

- Save Money with UTL rMPPT Technology.
- Protection from Battery Over Voltage and Current.
- Protection from load short circuit to keep your system safe in lower rating.
- Multiple charging stages to maintain battery gravity.
- Remove build-up sulphate to increase battery life.
- Run DC Load with UTL Solar Charge Controller in lower rating only.
- Protection from reverse flow of current from battery to panel.
- Lightening and surge protections.

rMPPT SOLAR CHARGE CONTROLLER

Electrical	Technology		MPPT/PWM		
	Precise Control		Micro Controller Based		
	Switching Device		MOSFET		
	Efficiency		93%		
	Features		Dusk to Dawn / Parallel Load		
	Model		MSCC 1210	MSCC 1220	MSCC 2410
	Solar (SPV)	SPV (Pmax)	150W	120W II 120W	250W
		SPVmax (Voc)	22.5V	22.5V	45V
		Operating Range	18V-22V	18V-22V	36V-44V
		Low Cut	12V±1V	12V±1V	24V±1V
		Low Cut Recovery	17±1V	17±1V	34±1V
	Battery	Battery Nominal Voltage	12V	12V	24V
		Bulk/Boost Voltage	14.5V±0.2V	14.5V±0.2V	29V±0.2V
		Float/Trickle Voltage	13.5V±0.2V	13.5V±0.2V	27V±0.2V
		Equalize Voltage	15V±0.2V	15V±0.2V	30V±0.2V
		Equalize Period	28 Days	28 Days	28 Days
		Charging Current	10A	20A	10A
		Battery Low Alarm	<11.2V±0.2V	<11.2V±0.2V	<22.4V±0.2V
	Load	Max. Load Current	10A	10A	10A
		Battery Low Load Disconnect	10.8V±0.2V	10.8V±0.2V	21.6V±0.2V
Battery Low Load Reconnect		12.6V±0.2V	12.6V±0.2V	25.2V±0.2V	
Battery High Load Disconnect		15.5V±0.2V	15.5V±0.2V	31V±0.2V	
Battery High Load Reconnect		14.5V±0.2V	14.5V±0.2V	29V±0.2V	
Dusk to Dawn (Optional)	DC Load ON	≤ 0.9V of SPV	≤ 0.9V of SPV	≤ 1.8V of SPV	
	DC Load OFF	≥ 1.9V of SPV	≥ 1.9V of SPV	≥ 3.8V of SPV	
Protections	Over Charging Current		Provided		
	Over Charging Voltage		Provided		
	SPV Reverse Polarity		Provided		
	Battery Reverse Polarity		Provided		
	Output Short Circuit		Provided		
	Overload		Provided		
	Reverse Current Flow at Night		Provided		
Indications & Alarms	LED Parameters	SPV ON	Green		
		Charge ON	Green		
		Battery Full	Green		
		Battery Medium	Yellow		
		Battery Low	Red		
		Over Load	Red		
	Buzzer/Alarm		Battery Low Load Disconnect		
		Overload			
Overload Conditions	Load %	100%	Continuous		
		101% - 120%	1min. OFF / 10min. ON		
		121% - 150%	1min. OFF / 30 Sec. ON		
		151% - 200%	1min. OFF / 2 Sec. ON		
		>200%	1min. OFF / 0.5 Sec. ON		
Physical	Cabinet Type		Metallic		
	Cabinet Dimension, L x W x H		135X130X75 (mm)		
	Weight		0.55Kg		
	Cabinet Color		Gray		
	Placement		Wall Mounted		
		Indoor			
Environmental	Operation Temperature		0°C to 50°C		
	Storage Temperature		-10°C to 70°C		
	Max. Relative Humidity (Non Conditioning)		5% to 95%		
	Ingress Protection		IP-20		

*Specification are subject to change without prior notice due to constant improvement in design & technology.

rMPPT SOLAR CHARGE CONTROLLER

Technology		MPPT/PWM						
Precise Control		Micro Controller Based						
Switching Device		Power MOSFET						
Electrical								
Model		MSCC 1230	MSCC 1240	MSCC 2420	MSCC 2430	MSCC 2440	MSCC 4810	MSCC 4820
Solar (SPV)	SPV (Pmax)	400W	500W	500W	750W	1KW	500W	1KW
	SPVmax (Voc)	22.5V	22.5V	45V	45V	45V	90V	90V
	Operating Range	18V-22V	18V-22V	31V-44V	31V-44V	31V-44V	72V-89V	72V-89V
	Low Cut	12.3V±0.2V	12.3V±0.2V	22.5V±0.2V	22.5V±0.2V	22.5V±0.2V	49.2V±0.2V	49.2V±0.2V
	Low Cut Recovery	17V±0.2V	17V±0.2V	30V±0.2V	30V±0.2V	30V±0.2V	68V±0.2V	68V±0.2V
Battery	Nominal Voltage	12V	12V	24V	24V	24V	48V	48V
	Bulk/Boost	14.5V±0.2V	14.5V±0.2V	29V±0.2V	29V±0.2V	29V±0.2V	58V±0.2V	58V±0.2V
	Float/Trickle	13.5V±0.2V	13.5V±0.2V	27V±0.2V	27V±0.2V	27V±0.2V	54V±0.2V	54V±0.2V
	Equalize Voltage	15V±0.2V	15V±0.2V	30V±0.2V	30V±0.2V	30V±0.2V	60V±0.2V	60V±0.2V
	Equalize Period	28Days	28Days	28Days	28Days	28Days	28Days	28Days
	Charging Current	30A	40A	20A	30A	40A	10A	20A
Protections								
Over Charging Current		Provided						
Over Charging Voltage		Provided						
SPV Reverse Polarity		Provided						
Reverse Current Flow at Night		Provided						
Display & Indication								
LED Parameters	SPV ON	Green						
	Charger ON	Green						
	Battery Full	Green						
	Battery Low	RED						
LCD Parameters (*Optional*)	SPV Voltage							
	SPV Current							
	Battery Voltage							
	Battery Current							
Physical								
LCD	N/A	16x1(Optional)	N/A	16x1(Optional)	16x1(Optional)	16x1(Optional)	16x1(Optional)	16x1(Optional)
Cabinet Type	Plastic	Metallic	Plastic	Metallic	Metallic	Metallic	Metallic	Metallic
Dimension (L x W x H) (mm)	180x220x85	220x240x150	180x220x85	220x240x150	220x240x150	220x240x150	220x240x150	220x240x150
Weight	2Kg	3.5Kg	2Kg	3.5Kg	3.5Kg	3.5Kg	3.5Kg	3.5Kg
Cabinet Color	N/A	Seimens Gray	N/A	Seimens Gray	Seimens Gray	Seimens Gray	Seimens Gray	Seimens Gray
Placement	Horizontal							
	Indoor							
Environmental								
Operating Temperature		0°C to 50°C						
Storage Temperature		-10°C to 70°C						
Max. Relative Humidity (Non Cond.)		5% to 95%						
Ingress Protection		IP-20						

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rMPPT SOLAR CHARGE CONTROLLER

Technology	MPPT/PWM												
Precise Control	Micro Controller Based												
Switching Device	IGBT												
Efficiency	>95%												
Electrical													
Model	MSCC 4830	MSCC 4840	MSCC 4850	MSCC 4860	MSCC 9630	MSCC 9640	MSCC 9650	MSCC 9660	MSCC 12030	MSCC 12040	MSCC 12050	MSCC 12060	
Solar (SPV)	SPV (Pmax)	1.5KW	2KW	2.5KW	3KW	3KW	4KW	5KW	6KW	3.5KW	5KW	6KW	7.5KW
	SPVmax (Voc)	180V	180V	180V	180V	360V	360V	360V	360V	450V	450V	450V	450V
	Operating Range	68V-176V	68V-176V	68V-176V	68V-176V	136V-352V	136V-352V	136V-352V	136V-352V	170V-440V	170V-440V	170V-440V	170V-440V
	Low Cut	48V±1V	48V±1V	48V±1V	48V±1V	96V±1V	96V±1V	96V±1V	96V±1V	120V±1V	120V±1V	120V±1V	120V±1V
	Low Cut Recovery	68V±1V	68V±1V	68V±1V	68V±1V	136V±1V	136V±1V	136V±1V	136V±1V	170V±1V	170V±1V	170V±1V	170V±1V
	High Cut	180V±1V	180V±1V	180V±1V	180V±1V	360V±1V	360V±1V	360V±1V	360V±1V	450V±1V	450V±1V	450V±1V	450V±1V
	High Cut Recovery	176V±1V	176V±1V	176V±1V	176V±1V	352V±1V	352V±1V	352V±1V	352V±1V	440V±1V	440V±1V	440V±1V	440V±1V
Battery	Nominal Voltage	48V	48V	48V	48V	96V	96V	96V	96V	120V	120V	120V	120V
	Charging Current	30A	40A	50A	60A	30A	40A	50A	60A	30A	40A	50A	60A
	Bulk/Boost Voltage	58V±1V	58V±1V	58V±1V	58V±1V	116V±1V	116V±1V	116V±1V	116V±1V	145V±1V	145V±1V	145V±1V	145V±1V
	Absorption Voltage	57.6V±1V	57.6V±1V	57.6V±1V	57.6V±1V	115.2V±1V	115.2V±1V	115.2V±1V	115.2V±1V	144V±1V	144V±1V	144V±1V	144V±1V
	Float/Trickle	54V±1V	54V±1V	54V±1V	54V±1V	108V±1V	108V±1V	108V±1V	108V±1V	135V±1V	135V±1V	135V±1V	135V±1V
	Equalize Voltage	60V±1V	60V±1V	60V±1V	60V±1V	120V±1V	120V±1V	120V±1V	120V±1V	150V±1V	150V±1V	150V±1V	150V±1V
	Equalize Period	28Days	28Days	28Days	28Days	28Days	28Days	28Days	28Days	28Days	28Days	28Days	28Days
Protection													
Over Charging Current	Provided												
Over Charging Voltage	Provided												
SPV High Cut	Provided												
Reverse Current Flow at Night	Provided												
Lightening / Surge Protection	Provided												
Display & Indication													
LED Parameters	SPV ON	GREEN											
	Charger ON	GREEN											
	Battery Full	GREEN											
	Battery Low	RED											
	SPV(Low/High) Cut	RED											
LCD Parameters		SPV Voltage											
		SPV Current											
		Battery Voltage											
		Battery Current											
Physical													
LCD	16x1												
Cabinet Type	Metallic												
Dimension (L x W x H) (mm)	355 x 332 x 230												
Weight	8.7Kg												
Cabinet Color	Black												
Placement	Horizontal												
	Indoor												
Environmental													
Operating Temperature	0°C to 50°C												
Storage Temperature	-10°C to 70°C												
Max. Relative Humidity (Non Cond.)	5% to 95%												
Ingress Protection	IP-21												

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Technology		MPPT/PWM											
Precise Control		Micro Controller Based											
Switching Device		IGBT											
Efficiency		>95%											
Electrical													
Model		MSCC 18030	MSCC 18040	MSCC 18050	MSCC 18060	MSCC 19230	MSCC 19240	MSCC 19250	MSCC 19260	MSCC 24030	MSCC 24040	MSCC 24050	MSCC 24060
Solar (SPV)	SPV (Pmax)	5.5KW	7.5KW	9KW	11KW	6KW	8KW	10KW	12KW	7.5KW	10KW	12KW	15KW
	SPVmax (Voc)	450V	450V	450V	450V	450V	450V	450V	450V	450V	450V	450V	450V
	Operating Range	255V-449V	255V-449V	255V-449V	255V-449V	272V-449V	272V-449V	272V-449V	272V-449V	340V-449V	340V-449V	340V-449V	340V-449V
	Low Cut	180V±1V	180V±1V	180V±1V	180V±1V	192V±1V	192V±1V	192V±1V	192V±1V	240V±1V	240V±1V	240V±1V	240V±1V
	Low Cut Recovery	255V±1V	255V±1V	255V±1V	255V±1V	272V±1V	272V±1V	272V±1V	272V±1V	340V±1V	340V±1V	340V±1V	340V±1V
	High Cut	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	High Cut Recovery	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Battery	Nominal Voltage	180V	180V	180V	180V	192V	192V	192V	192V	240V	240V	240V	240V
	Charging Current	30A	40A	50A	60A	30A	40A	50A	60A	30A	40A	50A	60A
	Bulk/Boost Voltage	217.5V±1V	217.5V±1V	217.5V±1V	217.5V±1V	232V±1V	232V±1V	232V±1V	232V±1V	290V±1V	290V±1V	290V±1V	290V±1V
	Absorption Voltage	216V±1V	216V±1V	216V±1V	216V±1V	230.4V±1V	230.4V±1V	230.4V±1V	230.4V±1V	288V±1V	288V±1V	288V±1V	288V±1V
	Float/Trickle	202.5V±1V	202.5V±1V	202.5V±1V	202.5V±1V	216V±1V	216V±1V	216V±1V	216V±1V	270V±1V	270V±1V	270V±1V	270V±1V
	Equalize Voltage	225V±1V	225V±1V	225V±1V	225V±1V	240V±1V	240V±1V	240V±1V	240V±1V	300V±1V	300V±1V	300V±1V	300V±1V
	Equalize Period	28 Days	28 Days	28 Days	28 Days	28 Days	28 Days	28 Days	28 Days	28 Days	28 Days	28 Days	28 Days
Protection													
Over Charging Current		Provided											
Over Charging Voltage		Provided											
SPV Reverse Polarity		Provided											
Reverse Current Flow at Night		Provided											
Lightening / Surge Protection		Provided											
Display & Indication													
LED Parameters	SPV ON	GREEN											
	Charger ON	GREEN											
	Battery Full	GREEN											
	Battery Low	RED											
	SPV(Low/High) Cut	RED											
LCD Parameters	SPV Voltage												
	SPV Current												
	Battery Voltage												
	Battery Current												
Physical													
LCD		16x1											
Cabinet Type		Metallic											
Dimension (L x W x H) (mm)		355 x 332 x 230											
Weight		8.7Kg										10Kg	
Cabinet Color		Black											
Placement	Horizontal												
	Indoor												
Environmental													
Operating Temperature		0°C to 50°C											
Storage Temperature		-10°C to 70°C											
Max. Relative Humidity (Non Cond.)		5% to 95%											
Ingress Protection		IP-21											

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