UNIMPPT L

■ INTUITIVE LCD SCREEN





Instantaneous production power in Watt, instantaneous production current (A), instantaneous voltage (V), and production history (kWh).



Instantaneous battery voltage (V), battery technology, instantaneous charge and discharge current (A).



Instantaneous DC current consumed (A), instantaneous power consumed (W), instantaneous DC output voltage, and consumption history (kWh).



PERFECT CHARGE ADAPTED TO BATTERY'S TECHNOLOGY

Voltage thresholds

Gel battery	AGM battery	Flooded battery			
Boost					
14,2 V	14,4 V	14,5 V			
Absorption					
-	14,4 V	14,5 V			
Leveling					
-	-	14.8 V			
Floating					
13,9 V	13,9 V	13,9 V			

Algoteck adjusts the levels according to the internal analysis of the battery and the ambient temperature.

PERFECT CHARGE ADAPTED TO AMBIENT TEMPERATURE



The chemical characteristics of the battery vary according to the ambient temperature. Thanks to its temperature sensor, UNIMPTT regulates all its voltage thresholds, compared to a reference temperature of 25°C of +/-30mV per °C.

Without regulation, the battery is either under-charged, limiting the electric autonomy, or overloaded, irreversibly degrading its life.

HIGH EFFICIENCY

1st price	UNIMPPT			
Output at 20W				
95%	98 %			
Output at 50W				
90-95%	98 %			
Output at max. capacity				
< 90%	98 %			

UNIMPPT SOLAR Charge controller

A CONCENTRATE OF TECHNOLOGY



The UNIMPPT range revolutionizes the market of charge controllers.

Its charging curve charges to 100% while taking into consideration the technology of your battery and the ambient temperature to adjust its voltage thresholds according to the recommendations of battery manufacturers.

MPPT technology (converter/regulator), UNIMPPT also uses the entire panel voltage by converting the excess panel/battery voltage, not used by a standard regulator, into charging current for the battery.

The optimized MPPT program, coupled with one of the fastest microprocessors on the market, searches in real time (every 100 ms) for the maximum power point of the panel.





Evolved MPPT Technology



Management and monitoring of production and consumption.



Charge curves adapted to all lead-acid and lithium batteries for L models (LifePO4).





UNIMPPT guarantees up to 40% more energy in winter and 15% more in summer than a PWM regulator, even in poor weather conditions.

PWM controller, even under the most changing even in the most changing climatic conditions.

Its unique and innovative design allows a perfect and discreet integration in your home or car interior.

The UNIMPPT L also features an intuitive LCD display for precise monitoring of panel production, battery charge and power consumption via its controlled 12/24V output.

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EASIER CABLING AND MOUNTING





Normal wiring

UNIMPPT 100/50.24S, 100/60.24S



ADVANCED CONCEPTION



UNIMPPT 60/10.24L, 60/20.24L, 100/30.24L, 100/40.24L



Maximum Power Point Tracking

MPPT VS PWM 20 TO 40% MORE ENERGY

Unlike a PWM regulator, that lowers the panel's voltage to the battery's voltage, an MPPT (inverter charge controller) uses all of the panel's voltage by reconverting the voltage surplus of panel/battery voltage not used by the battery into charging current (amperes).



In summer, the panel voltage decreases with the ambient temperature (average V: 16-17 V), the average gain of a MPPT compared to a PWM is 20%.



UNIMPPT FAST TRACK

Due to clouds and shadows, the light intensity changes rapidly. Thanks to its Fast Track MPPT program and its ultra fast microprocessor, UNIMPPT searches for the maximum power point of the solar panel and then modifies in real time its conversion parameters (input / output) for maximum power.



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MPPT UNIMPPT CHARGE CONTROLLERS	UNIMPPT L 60/10.24L	UNIMPPT L 60/20.24L	UNIMPPT L 100/30.24L	UNIMPPT L 100/40.24L
	Ref 3287	Ref 3294	Ref 3300	Ref 3317
System				
Battery voltage	12/24 V	12/24 V	12/24 V	12/24 V
Max. charging current	10 A	20 A	30 A	40 A
Self-consumption	5 à 15 mA	5 à 15 mA	5 à 15 mA	5 à 15 mA
Compatible panel				
intensity (Voc)	17-60 V	17-60 V	17-100V	17-100V
With 24V battery	34-60 V	34-60 V	34-100 V	34-100 V
Max. power with 12V battery	150 W	300 W	450 W	600 W
with 24V battery	300 W	600 W	900 W	1200 W
Technology	MPPT	MPPT	МРРТ	MPPT
Max. efficiency	98,00%	98,00%	98,00%	98,00%
	NA. dat waters	M. diff. advan	Maltheaters	Marchit and a se
Algorithm Voltage selection	multi-step	Multi-step	multi-step	Multi-step
Ratton type selection	auto	8010	auto	auto
Gel/Agm/liquid LiFePO4	yes yes	yes yes	yes yes	yes yes
Recommended battery capacity	10 - 200 Ah	20 - 400 Ah	30 - 600 Ah	50 - 800 Ah
Temperature compensation				
via integrated sensor (temperature)	yes	yes	yes	yes
via remote sensor (voltage + temperature)	yes, in option	yes, in option	yes, in option	yes, in option
Output controller 12/24V**	10.4	20.4	20 4	40.4
Output current	NOS	20 A	SU A	40 A
	yes	yes ves	yes	yes
Low battery protection	yes	Ves	Ves	Ves
Twilight timer function	Ves	Ves	Ves	Ves
Mechanical characteristics				
Max. cable cross section	4/6 mm ²	6 mm ²	16 mm ²	16 mm ²
International Protection rating	IP32	IP32	IP32	IP32
Operating temperature	-20°/+50°C	-20°/+50°C	-20°/+50°C	-20°/+50°C
Storage temperature	-20°/+70°C	-20°/+70°C	-20°/+70°C	-20°/+70°C
Dimensions (W x H x D)	205 x 150 x 50	250 x 170 x 57	265 x 175 x 63	300 x 195 x 68
Weight	700g	1,2kg	1,6 kg	2,0 kg
Period	2 years	2 years	2 years	2 years

* Equipped with an output controller, UNIMPPT directly supplies your 12 or 24 V electrical devices (depending on the connected battery). UNIMPPT protects your battery against deep discharges of the battery thanks to a low battery voltage cut, with automatic recovery of the power supply when the battery charge level is sufficient.

Warning : this output is not adapted for an DC-AC inverter connection.



UNISENSOR Ref 0408 Remote sensor: measures voltage and temperature directly at the battery's terminal for a more accurate charge.

