



# CML05/08/10/15/20NL

## Charge Controller with Nightlight Function



- One programmable nightlight function
- PWM regulation (series type)
- Integrated temperature compensation
- Three-state charging method
- SOC and voltage controlled LVD
- Solid-state circuit and load protection
- Reverse polarity protection
- Fully electronically protected

The CMLNL series is a sophisticated solar charge controller family for low cost applications. The electronic circuit is equipped with a microcontroller that provides high-efficiency charging technology together with a number of outstanding status display, warning and safety functions. The CMLNL series comes with two nightlight function mode. One of them is programmable that switch on the load output for a adjustable number of hours from dusk. The nightlight function is overridden by a battery deep discharge protection to avoid excessive discharge and damage of the battery. The temperature-compensated three-state PWM charging method (boost-equalize-float) is now ajustable to sealed and vented lead-acid batteries. The low voltage disconnect function can be controlled either by SOC or by voltage. The battery status, charging status and load status are clearly indicated by 5 LEDs.

TYPE	CML05NL	CML08NL	CML10NL	CML15NL	CML20NL
Nominal voltage	12/24V automatic recognition				
Max. solar panel current	5A	8A	10A	15A	20A
Max. load panel current	5A	8A	10A	15A	20A
Boost voltage	14.5V/29.0V@25 °C				
Equalization voltage	14.8V/29.6V@25 °C				
Low voltage Disconnect function	11.4-11.9V/22.8-23.8V controlled by state of charge 11.0/22.0V controlled by voltage				
Load reconnect voltage	12.8/25.6V				
Temperature compensation	-4mV/cell*K				
Self consumption	<4mA				
Max. wire size	16mm <sup>2</sup> (AWG#6)				
Dimensions	80 x 100 x 32mm(w x h x d)				
Weight	180gr				
Temperature range	-20 to +50 °C				
Type of protection	IP22				

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