



## CML05/08/10/15/20NL Charge Regulator with Nightlight Function



**Power class: 5A – 20A**

The CMLNL series is a sophisticated solar charge regulator 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 modes. One of them is programmable that switches on the load output for an 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 adjustable 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.

### Features

- Programmable nightlight function
- PWM regulation series type
- Integrated temperature compensation
- Three-state charging method
- SOC and voltage controlled LVD
- Reverse polarity protection
- Large terminals (up to 16mm<sup>2</sup>)
- Holder vor DIN rasil mounting available
- Large terminals (up to 16mm<sup>2</sup> wire size)

### Electronic Protections

- Solid-state circuit and load protection
- Fully electronically protected

### Displays

- Battery State-of-Charge and charge status display
- Load disconnect indication
- Load short circuit and overload indication
- Acoustic load disconnect pre-warning

## CML05/08/10/15/20NL regulator Data sheet

Type	CML05NL	CML08NL	CML10NL	CML15NL	CML20NL
Nominal Voltage [V]	12/24 automatic recognition				
Max. solar panel current [A]	5	8	10	15	20
Max. load panel current [A]	5	8	10	15	20
Boost voltage [V]	14.5/29.0 @ 25°C				
Equalisation voltage [V]	14.8/29.6 @ 25°C				
Low voltage disconnect function	11.4-11.9/22.8-23.8 controlled by state of charge 11.0/22.0 controlled by voltage				
Load reconnect voltage [V]	12.8/26.6				
Temperature compensation	-4mV/cell*K				
Self consumption [mA]	< 4				
Max wire size [mm <sup>2</sup> ]	16(AWG#6)				
Dimensions [mm] (wxhxd)	80 x 100 x 32				
Weight [g]	180				
Temperature range [°C]	-20 - +50				
Type of protection	P22				