

CML series (5 – 20 A)

Solar Charge Controllers



- Battery State-of-Charge display with 3 LEDs
- Acoustic load disconnect pre-warning
- PWM-regulation (series type)
- Boost, Equalize and Float charging, also for VRLA
- Automatic 12/24 V detection
- Integrated temperature compensation
- Large terminals (up to 16 mm² wire size)
- SOC and voltage controlled LVD
- Fully electronically protected

The CML 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 temperature-compensated three-stage PWM charging method (boost-equalization-float) is now adjustable to

sealed and vented lead-acid batteries. The new version also allows an either SOC or voltage controlled low voltage disconnect function.

The battery status is clearly indicated by three LEDs. As the first controller on the market in this price range it comes with an acoustic low voltage load disconnect pre-warning feature.

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Solar Charge Controllers

Type	CML 05	CML 08	CML 10	CML 15	CML 20
System voltage	12/24 V auto recognition				
Max. charge/load current	5 A	8 A	10 A	15 A	20 A
Float charge	13.7/27.4 V (25 °C)				
Boost charge	14.4 /28.8 V (25 °C), 2 Std. activation: battery voltage < 12.3/24.6 V				
Equalization	14.8/29.6 V (25 °C), 2 Std. activation: battery voltage < 12.1/24.2 V				
Deep discharge protection:					
State of charge dependent	11.4 – 11.9 V / 22.8 – 23.8 V				
Voltage dependent	11.0/22.0 V				
Reconnect level	12.8/25.6 V				
Overvoltage protection	15.5/31.0 V				
Undervoltage protection	10.5/21.0 V				
Max. panel voltage	30 V in 12 V system				
(Overvoltage protection by varistor)	50 V in 24 V system				
Temperature compensation	-24 mV/K at 12V				
(Charge voltage)	-48 mV/K at 24V				
Max. self consumption	< 4 mA				
Grounding	positive grounding possible				
Ambient temperature	-40 to +50 °C				
Max. height	4,000 m above sea level				
Battery type	lead acid (GEL, AGM, flooded)				
Wire cross section	< 16 mm ²				
Weight	160 g				
Dimensions (W x H x D)	80 x 100 x 32 mm				
Type of protection	IP22				