

# Intelligent Regulators

from Plasmatronics

The PL series of charge controllers give you the freedom to operate your solar electric system the way you want to.

They offer complete control over the charge cycle, plus an unprecedented amount of useful information about current and past performance.

PL regulators help to protect the system with a built in low battery disconnect switch. In addition, the versatile event controller can switch power on or off according to criteria set by the user. This allows the PL to do extra tasks such as switching a light on at night or keeping a water tank full by operating a pump when needed.

The user can select either Pulse Width Modulation or slow speed switching. Regulation can be done in both series and shunt modes. Other features include backup generator control and charging a second battery.

**Turn page over for feature list and technical specifications.**



**PL20**  
20A Charge  
20A Load

**PL40**  
40A Charge  
7A Load

**PL60**  
60A Charge  
30A Load

## Informative

Display shows battery voltage, charge current, ampere hours in and out of battery, load being drawn from the battery and which part of the charge cycle the battery is in.

## Easy to maintain

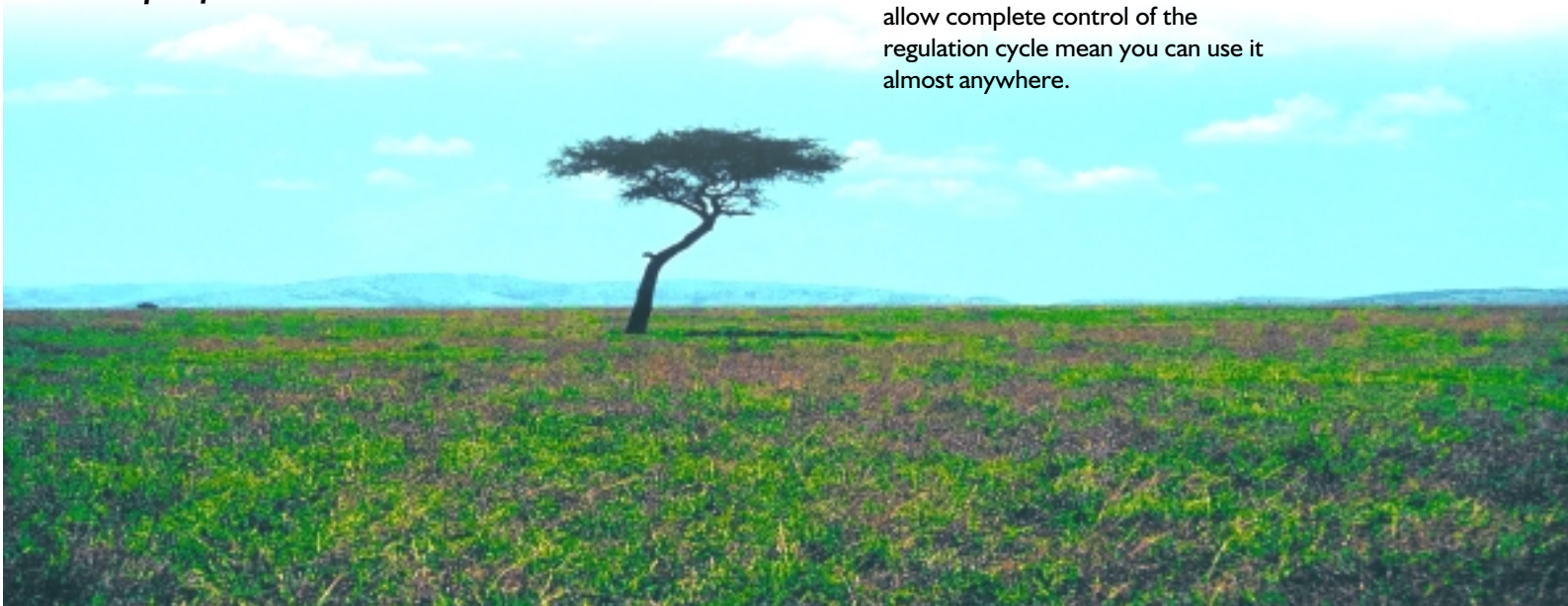
Information is available for the past 30 days - so even if the user doesn't remember what happened, the regulator will.

## Well Connected

With the optional PLI interface and PLcom software, the user can access the regulator from a computer. Data can be read or settings adjusted. This can be done remotely using a modem.

## Versatile

It may be the only regulator you will ever need to stock. Its capacity to handle 12, 24 and 48V systems and allow complete control of the regulation cycle mean you can use it almost anywhere.



# Features

**Adjustable:** All settings are adjustable and are stored in a non volatile memory

**Display:** User friendly alphanumeric LCD gives you words to explain the numbers.

**Energy Metering:** Shows daily charge and discharge amp hours.

**Three Step Regulation:** Boost, Absorption and Float modes with an optional periodic Equalisation mode.. Can switch in series, shunt or series + shunt modes.

**History:** Records charge and load amp hours, max and min battery voltages and state of charge for the last 30 days. Remembers how much was really collected and used.

**Generator Control:** A sophisticated generator controller is included with four different modes of control available and a quiet time option.

**Event Control:** A versatile event controller allows the load to be turned on or off under a user selected set of conditions. Can be used for lighting, pumping , frost control etc.

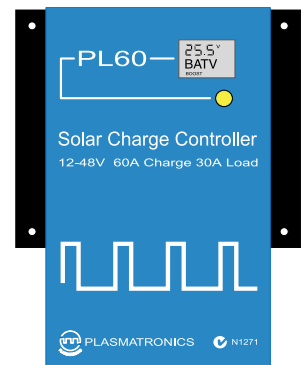
**Alarm:** There is an adjustable low or high battery voltage alarm.

**Second Battery:** When the main battery is full, use the waste energy to charge an auxiliary battery. The PL supplies a signal to switch a relay to the second battery.

**Remote Control:** A computer can communicate with the PL using the PLI RS232 interface. Data can be downloaded and settings adjusted from far away.

**Protection:** Protected against short circuit, reverse flow, lightning. Low battery load disconnect function built in. Current limit for over heat or over current. Conformal coating applied to protect against corrosion.

**External Shunts:** Two external shunts can be connected using the DC isolated PLS adaptor.



# Specifications

Parameter	PL20	PL40	PL60	Units
Nominal System Voltages	12, 24, 32, 36, 48			V
Solar Charge Current Maximum	20	40	60	A
Load Switch Current Maximum	20	7	30	A
Voltage Drop at Rated Current	0.4	0.4	0.42	V
Operating Ambient Temperature Range	-20 to + 55			°C
Supply Current	9	13	20	mA
Battery Temperature Sensor Range	-5 to + 50			°C
Regulation Set Points	4 set programs else user adjust			
Dimensions H x W x D	100 x 109 x 41	130 x 124 x 50	225 x 175 x 62	mm
Weight	320	515	1100	gram



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