

OFF-GRID APPLICATIONS: SOLAR KIT COMPONENTS

VENUS

Range of PWM regulators for isolated photovoltaic systems

Description



The Venus range of regulators made by Zigor controls and optimizes the energy production from solar panels for storage in battery avoiding overloading.

Venus regulators are the appropriate systems to manage power from PV panels to control battery charge, safeguard their service life and offer a protected output for the DC consumption.

The range of Venus regulators can be used in as many different fields as there are needs for isolated power generating systems. They are designed to manage power in 12/24 V systems.

Designed to ensure correct operation under aggressive environmental conditions, thanks to their broad range of working-temperature and natural convection cooling, the range of Venus regulators made by Zigor guarantee its functionality.



Venus 8

Venus 20

Features

- > PWM monitored battery charging control
- > Temperature compensated battery charging
- > Reinforced charging
- > Final charging voltage
- > Electromagnetic compatibility (EMC)
- > Automatic reconnection of loads
- > Low current consumption at nights
- > User interface by means of LED
- > On-the-spot adjustment of parameters
- > Operation in aggressive atmospheres
- > Protections:
 - Overload
 - Inverse polarity
 - Protection against deep discharge (LVD)
 - Protection against open circuit
- > Control of battery discharge

Applications

- > Isolated photovoltaic sys.
- > Domestic consumptions
- > Water pumping
- > Battery charging
- > Telecom backup
- > Illumination
- > Traffic, signposting
- > Rural, camping

on-grid solar plants

mid voltage solar plants

hybrid generation

energy saving

telecom back up

wind energy



ELECTRICAL CHARACTERISTICS

Model	Venus 8	Venus 20
Reference	20030	20033
Nominal current	8A	20A
Battery voltage	12 / 24Vdc	
PV maximum voltage	40 Vdc	
Recommended PV voltage	18 / 31 Vdc	

GENERAL FEATURES

Protections	Overvoltage, Sub-voltage, Short-circuit, Inverse polarity	
Under-voltage	10.7 / 21.4 Vdc 2%	
Standby consumption	< 5mA	
Interface	2 led	
Protection type	IP20	
Temperature sensor	Integrate	External wire

ENVIRONMENTAL AND MECHANICAL FEATURES

Operating temperature	-25°C +50°C	
Cooling	Natural convection	
Dimensions (WxHxD) (mm)	95x95x35	190x100x85
Weight (gr)	214	330

STANDARDS

Certificates	CE Marking	
Directives	73/23/CEE-93/68/CEE 89/336/CEE	
Standards	EN 50081-1, EN 50082-1	

These specifications may be changed without notice.

SATURNO

Range of MPPT regulators for isolated photovoltaic systems

Description



The Saturno range of regulators made by Zigor controls and optimizes the energy production from solar panels for storage in battery avoiding overloading.

Saturno regulators are the appropriate systems to manage power from PV panels, obtaining up to 30% more power than traditional systems to its MPPT function, to control battery charging, safeguard their service life and offer a protected output for the DC consumption.

The range of Saturno regulators can be used in as many different fields as there are needs for isolated power generating systems. They are designed to manage power in 12/24/36/48V systems and the energy can be stored in batteries of up to 600Ah (C10).

Designed to ensure correct operation under aggressive environmental conditions, thanks to their broad range of working-temperature, the range of Saturno regulators made by Zigor guarantee its functionality.



Saturno 60

Saturno 30

Features

- > MPPT monitored battery charging control
- > Temperature compensated battery charging
- > Reinforced charging
- > Final charging voltage
- > Electromagnetic compatibility (EMC)
- > Automatic reconnection of loads
- > Low current consumption at night
- > User interface by means of LED/LCD (60A model)
- > On-the-spot adjustment of parameters (60 A model)
- > Operation in aggressive atmospheres
- > Protections:
 - Overload
 - Inverse polarity
 - Protection against deep discharge (LVD)= 60A non integrated in regulator
 - Protection against open circuit
- > Energy optimization (up to 30% more) in battery charging
- > Control of battery discharge

Applications

- > Isolated photovoltaic sys.
- > Domestic consumptions
- > Water pumping
- > Battery charging
- > Telecom backup
- > Illumination
- > Traffic, signposting
- > Rural, camping

on-grid solar plants

mid voltage solar plants

hybrid generation

energy saving

telecom back up

wind energy



ELECTRICAL CHARACTERISTICS

Model	Saturno 20	Saturno 30	Saturno 60
Referencia	20039	20040	20036
Nominal current	20A	30A	60A
Battery voltage	12 / 24Vdc		36 / 48Vdc
PV voltage range	5 ~ 70Vdc		70 ~ 140Vdc
PV maximum voltage	70Vdc		140Vdc
Recommended PV voltage	35Vdc		110Vdc

GENERAL FEATURES

Protections	Overvoltage, Sub-voltage, Short-circuit, Inverse polarity		
Under-voltage	10.5 / 21Vdc		31.5 / 42Vdc
Standby consumption	< 1mA		< 30mA
Interface	3 LED		Display
Auxiliary output	No		Yes

ENVIRONMENTAL AND MECHANICAL FEATURES

Operating temperature	-25°C ~ +60°C		
Refrigeration	Natural		Forced
Dimensions (WxHxD) (mm)	190x112x59		190x335x100
Weight (kg)	0.87	0.89	3

STANDARDS

Certificates	CE Marking		
Directives	73/23/CEE-93/68/CEE 89/336/CEE		
Standards	EN 50081-1, EN 50082-1, EN 55022 Clase B, EN 61000-4-2, EN 61000-4-3		

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