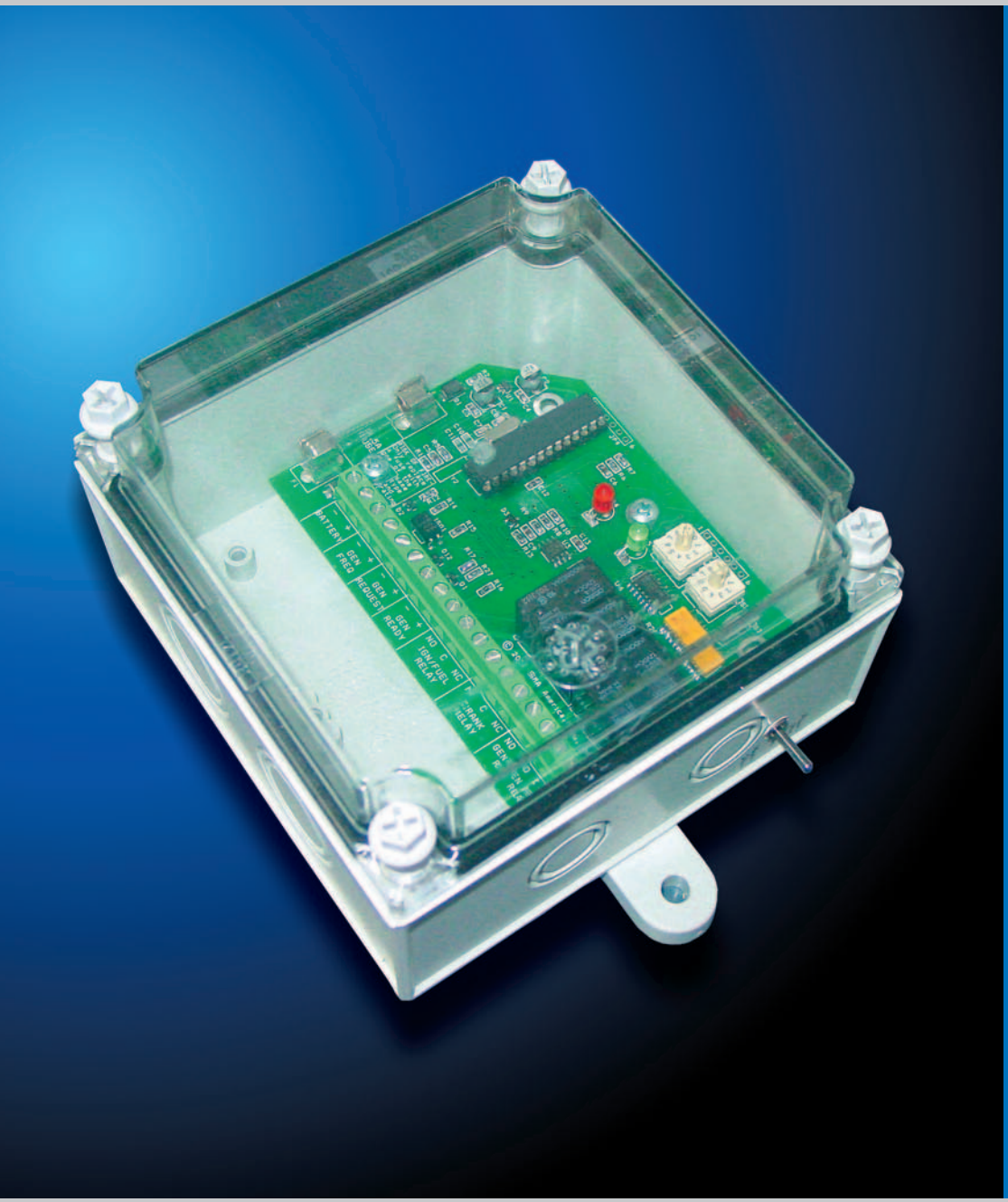
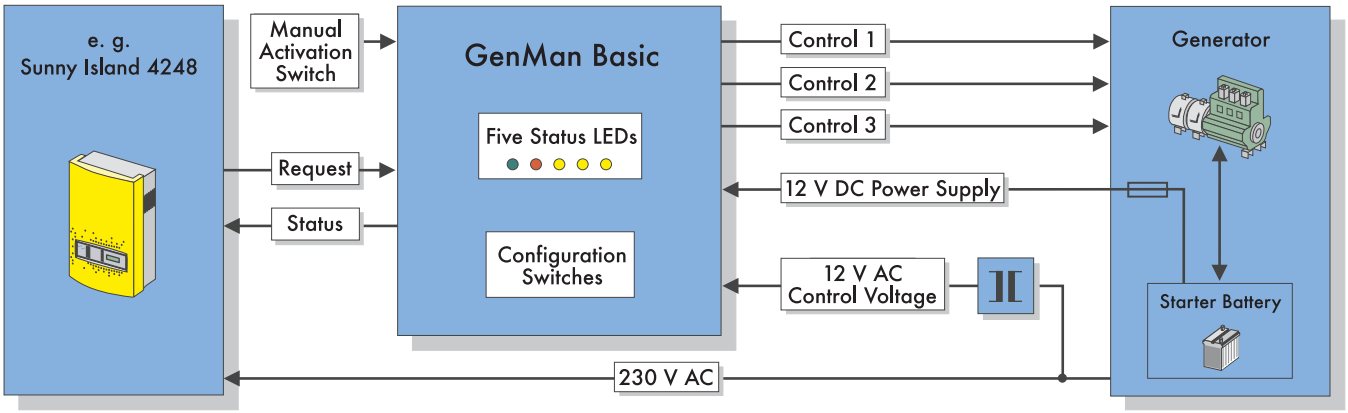
GenMan Basic

SMA's new off-grid Generator Management Box



- Simple 2-or 4-wire interface to inverter
- Easy user configurable settings via 2 rotary switches
- Automatic generator warm up and cool down
- Automatically stops the generator on a fault
- Generator starts if its battery is low
- Easy installation
- Supports most common generators such as Honda, Onan, Kohler, Genera etc.
- Flexible and robust to make generator operation problem free and reliable

Off-grid electricity supply systems with the Sunny Island 4248 can operate with a temporary generator support. The Sunny Island 4248 is equipped with a "Generator Request" output signal for activation of the generator in case the battery charge level gets below a critical value. The GenMan Basic is the optional control accessory that interprets the "Generator Request" signal in terms of preheating, cranking and warm up cycles for the generator and sends an "OK" signal back to the Sunny Island 4248 in case of a successful activation of the generator.



The new GenMan generator management box was designed to control common generators which do not have automatic controls built in. This allows a generator with more than a 2-wire start to be interfaced to a 2-wire start inverter control. The GenMan also controls the warm up time and cool down time of the generator to provide more reliable operation of the system with less wear on the generator. The side panel toggle switch provides for easy selection of standby, auto, and manual start functions. Five status LEDs provide information on the current operation and any faults if they occur. The GenMan control is housed in a IP65 type polycarbonate enclosure which has built in conduit knockouts for easy installation. Rugged 5 Amp relays for interfacing to the generator. The GenMan will also automatically start the generator if the start battery is low and disable starting if the battery is dead. Simple to setup and operate yet the GenMan is flexible and robust to make generator operation problem free and reliable.

Technical Data

Electrical Data

Nominal DC Voltage:	$V_{DC, Nom}$	12 V
DC Voltage Range:	V_{DC}	7 to 17 V
DC Voltage Transient Clamp Voltage:	$V_{DC, Clamp}$	18 V
DC Maximum Consumption:	$I_{DC, Max}$	< 200 mA
DC Standby Consumption:	I_{DC}	< 5 mA
DC Input Fuse Voltage Rating:	V_{DC}	30 V
DC Input Fuse Current Rating:	I_{DC}	0.5 A
Relay Maximum DC Voltage:	$V_{DC, Max, Relay}$	30 V
Relay Maximum DC Current:	$I_{DC, Max, Relay}$	5 A (NO) / 3 A (NC)
Gen Frequency Input Voltage Range:	$V_{AC, Gen}$	5 to 18 V
Gen Frequency Input Current:	$I_{AC, Gen}$	ca. 1 mA
Gen Frequency Range:	$F_{AC, Gen}$	0 to 100 Hz
Gen Request Loop Current:	$I_{DC, GenReq, Nom}$	5 mA
Gen Request Loop Maximum Voltage:	$V_{DC, GenReq, Max}$	V_{DC}
Gen Ready Loop Maximum Current:	$I_{DC, GenReady, Max}$	12 mA
Gen Ready Loop Maximum Voltage:	$V_{DC, GenReady, Max}$	V_{DC}

Environmental / Mechanical Data

Enclosure:	Polycarbonate IP65
Temperature Range:	-25 to 70 °C
Weight:	0.34 kg
Size in mm:	Length x Width x Height (127 x 127 x 84)
Wiring Connections:	Screw Compression Terminal Block
Wire Size:	0.05 to 2.0 mm^2

Interfaces

1 LED (Green - Operation status)
1 LED (Red - Fault status)
3 LED's (Yellow - Relay status)
2 Rotary Switches (Generator Timing and Generator Type)

Certifications

CE Certified
ETL listed to UL1741
FCC Class A and B Certified

Optional Accessories

Transformer for frequency input 230 V / 12 V AC

www.SMA.de
Freecall +800 SUNNYBOY
Freecall +800 78669269

Innovation in Systems Technology
for the Success of Photovoltaics