

Mobile Solar Generators

VERSION 2017.01

Renewable power

Ready to use

Anytime, Anywhere!



CE

CEG
Catalyst Energy Group



Reliable Pure Sine Wave Power Generation & Storage

CEG systems provide more hours of stored, pure sine wave energy because they feature a number of proprietary, seamlessly integrated components:

ENHANCED BATTERIES, PROPRIETARY CHARGE CONTROLLER - CEG's proprietary batteries, manufactured by a large, international battery company, contain a custom dielectric frame between positive and negative ions. The frame's impact on the ions enables faster charging and more storage hours. CEG's charge controller optimizes battery efficiency via a unique algorithm that monitors and controls the entire system and receives automatic software upgrades via Wi-Fi.

INTEGRATED PROPRIETARY POWER FACTOR UNITS - CEG Hybrid Power Generators incorporate proprietary Power Factor Capacitors which supply power to meet demand surges, thereby enhancing efficiency and prolonging battery amp hours.

CUSTOM INVERTERS - CEG's custom, high quality inverters contain fail-safe redundant printed circuit boards. This addresses the weak link in any energy storage system as inverters produce heat which can cause electronics to fail. Further enhancements to CEG inverters include over-sized wiring and copper clad connectors.



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Company Overview

The inevitable ascension of renewable energy has now occurred, fostered not only by the emergence of innovative, economically attractive technologies but by the ability to connect those technologies to the appropriate customers. Incentive driven enterprises will be replaced by companies featuring both technologies and products that are financially and environmentally attractive and are supported by marketing and sales platforms that will let them access their appropriate markets. Those are the companies that will complete the transformation of renewable energy from a subsidized peripheral source of power into a mainstream supplier of overall energy needs.

Catalyst Energy Group (CEG) is precisely that combination. Possessing a large multi-national manufacturing capability, a cutting edge design and engineering laboratory and a sales and marketing team with international reach, CEG offers an innovative, uniquely effective and adaptable array of energy generation and storage products that feature unmatched performance in extraordinarily durable configurations. CEG's decades of manufacturing and engineering capabilities provide the capacity to accommodate the needs of large multi-national customers while its creative design laboratory relentlessly integrates refinements and innovation into each of its products.

The effectiveness of energy generation and storage systems is determined by some simple math. How efficiently does the product accumulate and store power and for how many KW or MW hours can it provide that power? In terms of KW hours, many of the smaller, and sometimes mobile "solar" units available, are actually conventional fossil fuel generators disguised as renewable products and too often the larger Megawatt units are one size fits all ponderous devices that output very few hours of stored energy. CEG products are different. In every configuration, they provide the vast majority of their power from the renewable source and in the larger sizes can be customized to specifically address the needs of the customer.

CEG systems range in size from 3 kW to 1 mW and are available in both mobile and stationary configurations with proprietary firmware capable of optimizing functionality to meet each customer's operating conditions. These systems don't function simply as a conduit, accumulating power and then transferring that power, but as a legitimate storage facility as gathered energy is always sent to batteries initially and then distributed at the times and at the volumes required by the customer. All products are engineered as plug and play, are designed to accommodate new technologies as they become viable and can be daisy chained to meet demand of any size.

Introduction



Solar



Solar and Gen-set



Solar and Wind



Solar, Wind, Gen-set

Mobile Solar Generators

Electricity generated in CEG Solar & Hybrid Systems is stored in self-maintaining deep cycle stationary batteries. An optional Gen-Set bridges the gap when demand exceeds generation from solar and wind. The Gen-Set automatically starts, fills the gap, then automatically shuts off.

All the models are delivered fully assembled, after rigorous testing.

Ready to meet demand 24 hours a day, CEG Solar & Hybrid Systems power single homes, factories, hospitals and entire villages.

Plug & Play architecture. Environmentally friendly, silent, odorless and smoke free.

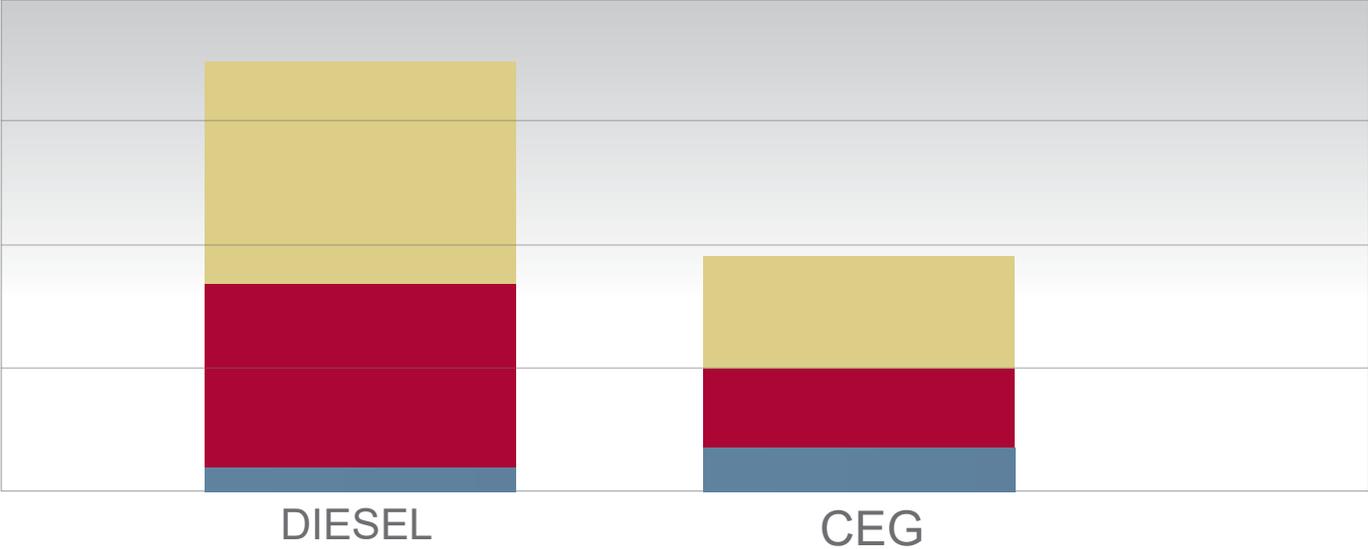
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Diesel Vs CEG

CEG systems have many advantages over Diesel Generators. They are quiet and require virtually no maintenance. There are no costly repairs as there are no moving parts. Above all, no fuel is required as it is harnessed from the sun and wind.

Diesel vs CEG cost

■ Initial Investment ■ Cost Over 5 Years ■ Cost Over 10 Years



	AC GENSET	CEG
Fuel Consumption at 100%	2.7 liters per hour	0 litres
Service Maintenance	360 Hours (15 days)	8.640 Hours (12 Months)
Major Service Maintenance	4320 hours (6months)	43.200 hours (5 years)

How to choose?



Solar

SOLAR models are recommended in areas with high sun exposure.

Clean, quiet and economical.



Solar and Gen-set

SOLAR and GEN SET models are recommended for higher consumption.

The Gen-Set bridges the gap when demand exceeds solar generation. The Gen-Set automatically starts, fills the gap, then automatically shuts off.



Solar and Wind

SOLAR and WIND models are best in windy areas with good sun exposure.



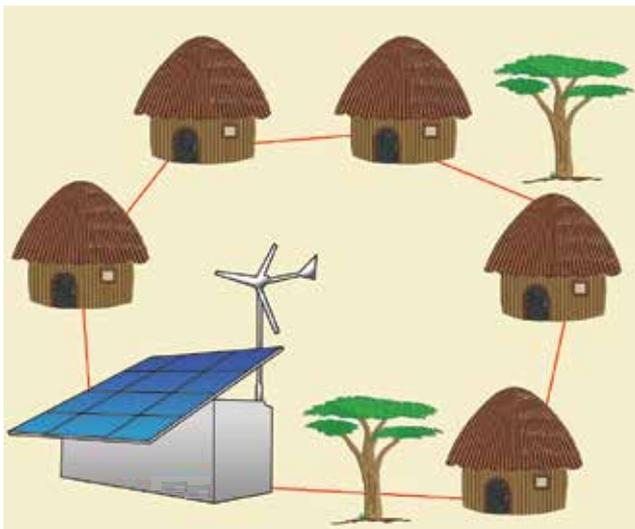
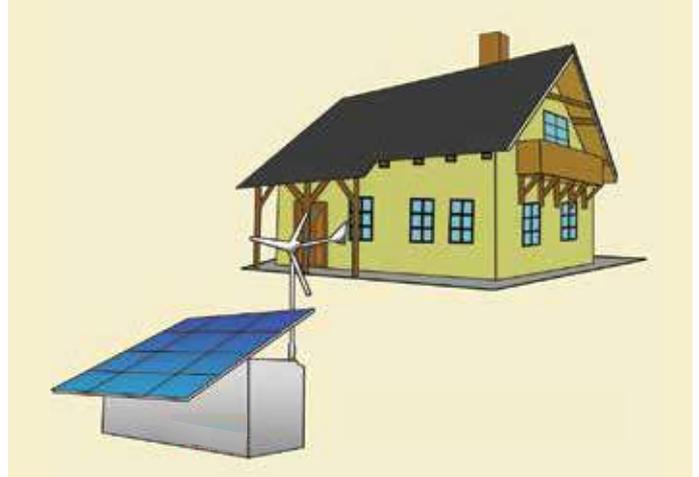
Solar, Wind, Gen-set

SOLAR, WIND, GEN-SET models are recommended in windy, sunny areas when continuous power is required (hospitals, businesses, schools, public buildingd, etc).

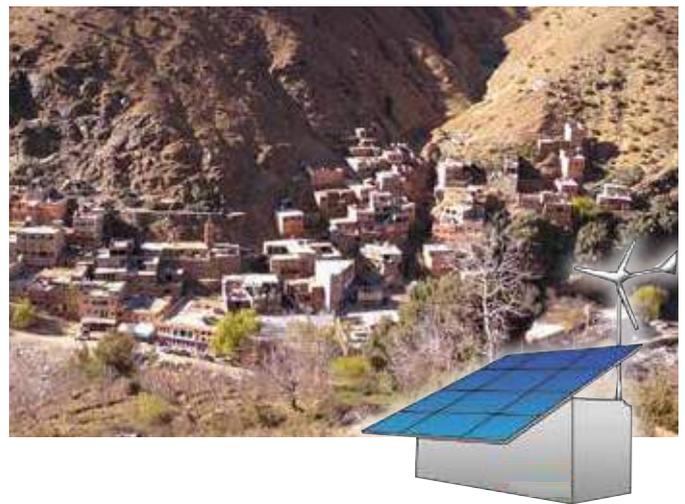
Applications

CONSTRUCTION SITES

- Disaster relief
- **Remote Research Stations**
- Remote Resorts, homes and farms
- **Uninterruptible power Systems**



Applications



- » Agriculture
- » Irrigation
- » Wells
- » Machinery
- » Factories
- » Schools
- » Housing
- » GSM/ Telecommunication stations
- » Submersible pumps for wells
- » Villages



CONTAINER MODELS

EASY TRANSPORT

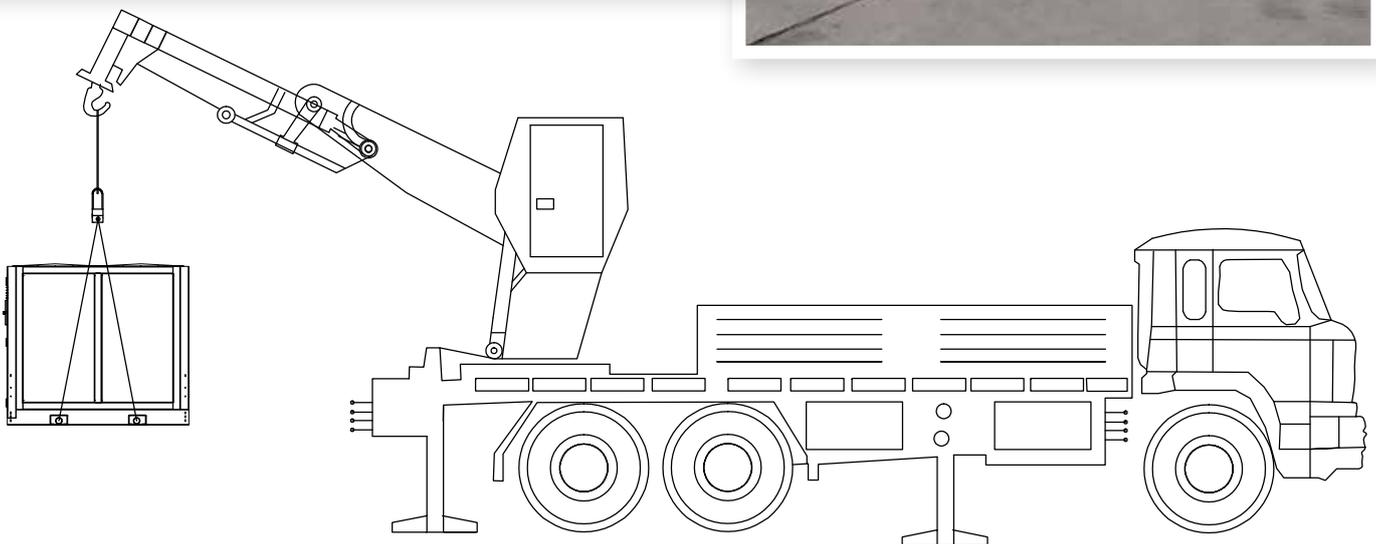
» containers easily carried with forklifts or crane.

EASY INSTALLATION

» Simple installation, within hours. No technical skills required.

» Turnkey, rapid solar deployment and setup.

» Plug & Play installation.



RA.M-S8-i3

MOBILE MODELS

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Solar & Hybrid Generators



Easily integrates with wind, diesel generators or grid to provide a complete hybrid solution

RA.M-S8-i3

Inverter	Rated Output	3000 VA
	Surge	5750 VA
	AC Voltage	230 VAC
	Type	True Sinewave Inverter/Charger
	Manufacturer	Outback
	Warranty	5 Years
Battery	Bank in Amp-Hours	620 AH 24VDC
	Est. Bank Storage	14800 Wh
	Type	Gel
	Deep Cycle	1500
	Warranty	2 Years
Solar	kWh per day	10.4
	Number of Panels	8
	Module Watts Each	260
	Total Array Watts	2080
	Manufacturer	ZNShine Solar
	Warranty	25 Years
Charge Controller MPPT	Max Amps DC	80
	Manufacturer	Outback
	Warranty	5 Years
Monitoring	Program, manage and monitor entire system	YES
	System configuration wizard	YES
	Up to 1-year of data logging	YES
	Internet-enabled	YES
	SD memory card slot	YES
	Manufacturer	Outback
	Warranty	5 Years

MOBILE MODELS

RA.M-S8-i3-W1



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Solar & Hybrid Generators

Easily integrates with wind, diesel generators or grid to provide a complete hybrid solution		RA.M-S8-i3-W1
Inverter	Rated Output	3000 VA
	Surge	5750 VA
	AC Voltage	230 VAC
	Type	True Sinewave Inverter/Charger
	Manufacturer	Outback
	Warranty	5 Years
Battery	Bank in Amp-Hours	620
	Est. Bank Storage	14.8 kWh
	Type	Lead Acid
	Deep Cycle	1500
	Warranty	3 Years
Solar	kWh per day	10,4
	Number of Panels	8
	Module Watts Each	260
	Total Array Watts	2080
	Manufacturer	ZNShine Solar
	Warranty	25 Years
Charge Controller	Max Amps DC	80
	Manufacturer	Outback
	Warranty	5 Years
Monitoring	Program, manage and monitor entire system	YES
	System configuration wizard	YES
	Up to 1-year of data logging	YES
	Internet-enabled	YES
	SD memory card slot	YES
	Manufacturer	Outback
	Warranty	5 Years
Wind	Rotor Diameter	1.54 Meters
	Peak Output	750W
	Manufacturer	Leading Edge
	Warranty	2 Years

RA.M-S8-i3-W1-G7

MOBILE MODELS

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Solar & Hybrid Generators



Easily integrates with wind, diesel generators or grid to provide a complete hybrid solution		RA.M-S8-i3-W1-G5
Inverter	Rated Output	3000 VA
	Surge	5750 VA
	AC Voltage	230 VAC
	Type	True Sinewave Inverter/Charger
	Manufacturer	Outback
	Warranty	5 Years
Battery	Bank in Amp-Hours	620
	Est. Bank Storage	14.8 kWh
	Type	Lead Acid
	Deep Cycle	1500
	Warranty	3 Years
Solar	kWh per day	10.4
	Number of Panels	8
	Module Watts Each	260
	Total Array Watts	2080
	Manufacturer	ZNShine Solar
	Warranty	25 Years
Charge Controller MPPT	Max Amps DC	80
	Manufacturer	Outback
	Warranty	5 Years
Monitoring	Program, manage and monitor entire system	YES
	System configuration wizard	YES
	Up to 1-year of data logging	YES
	Internet-enabled	YES
	SD memory card slot	YES
	Manufacturer	Outback
	Warranty	5 Years
Wind	Rotor Diameter	1.54 Meters
	Peak Output	750W
	Manufacturer	Leading Edge
	Warranty	2 Years
Diesel Generator	Prime Rating	5,6 kW
	Amp	24 A
	Voltage	230 V
	Frequency	50 Hz
	Tank Capacity	16 L

MOBILE MODELS

RAM-S8-i3-G7

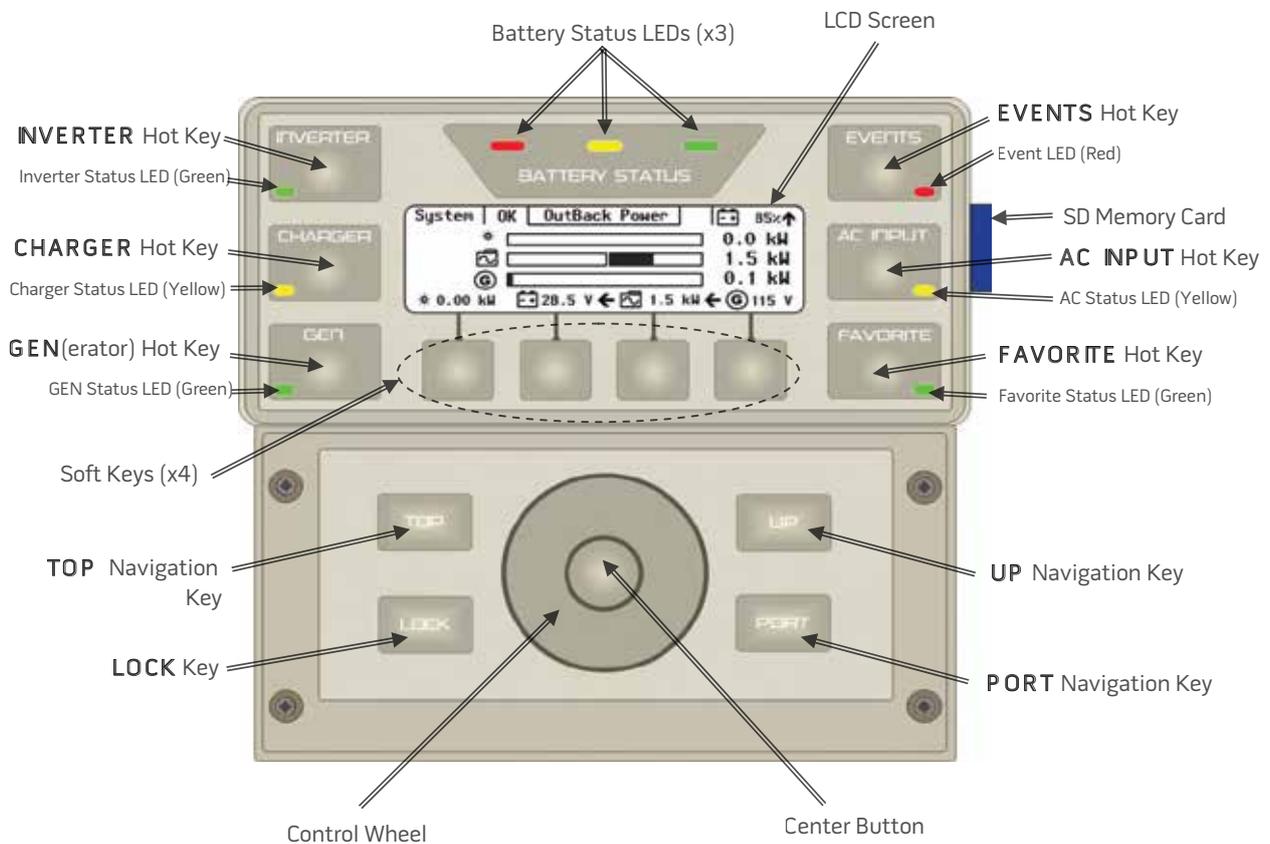


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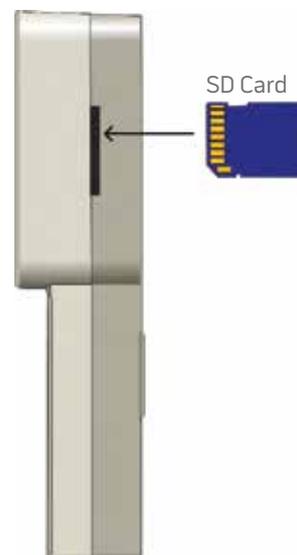
Solar & Hybrid Generators

Easily integrates with wind, diesel generators or grid to provide a complete hybrid solution		RAM-S8-i3-G5
Inverter	Rated Output	3000 VA
	Surge	5750 VA
	AC Voltage	230 VAC
	Type	True Sinewave Inverter/Charger
	Manufacturer	Outback
	Warranty	5 Years
Battery	Bank in Amp-Hours	620
	Est. Bank Storage	14.8 kWh
	Type	Lead Acid
	Type	Lead Acid
	Deep Cycle	1500
Solar	kWh per day	10,4
	Number of Panels	8
	Module Watts Each	260
	Total Array Watts	2080
	Manufacturer	ZNShine Solar
	Warranty	25 Years
Charge Controller MPPT	Max Amps DC	80
	Manufacturer	Outback
	Warranty	5 Years
Monitoring	Program, manage and monitor entire system	YES
	System configuration wizard	YES
	Up to 1-year of data logging	YES
	Internet-enabled	YES
	SD memory card slot	YES
	Manufacturer	Outback
	Warranty	5 Years
Diesel Generator	Prime Rating	5.6 kW
	Amp	24 A
	Voltage	230 V
	Frequency	50 Hz
	Tank Capacity	16 L

Features



Side View



- ❖ Program, manage and monitor entire system
- ❖ Intuitive menu structure
- ❖ Easy-to-read graphical display
- ❖ System configuration wizard
- ❖ Internet-enabled
- ❖ Field upgradable
- ❖ Up to 1-year of data logging
- ❖ SD memory card slot

Features



Generator and Grid seed power if there isn't enough Solar Power for the Loads



AC inlet - simple Grid/Utility connection

Inverters

FLEXware 250 System

For applications with a single OutBack FX Series Inverter/Charger and one MX Series ----- Charge Controller. No mounting plate required. Powder-coated aluminum with stainless steel hardware.

FW250 DC

AC breaker enclosure - secures directly to either end of an FX Series Inverter/Charger. Includes ground bus bar and DC breaker handle guard. Holds up to eight 1 to 80 Amp, one 175 or 250 Amp panel mount breaker and a GFCI AC outlet (not included). Does not use the DCA or ACA for connection to an FX Series Inverter/Charger. (DC current shunt not included).



FLEXware 500 System

For applications with one or two OutBack FX Series Inverter/Chargers and one or two MX Series ----- Charge controllers. Uses one FW-MP mounting plate. Powder-coated aluminum with stainless steel hardware.

FW500-DC

DC breaker enclosure - fits at the DC side of one or two FX Series Inverter/Chargers. Includes ground bus bar, 500 Amp DC shunt assembly with negative TBB breaker mounting screws - holds up to eight 1 to 80 Amp, three 100 or 125 Amp and two 175 or 250 Amp panel mount breakers (not included). Requires optional DCAs for connection of each FX Series Inverter/Charger.

FW500-AC

AC breaker enclosure - fits at the AC side of one or two FX Series Inverter/Chargers. Includes ground bus bar and DIN mounting bracket for up to sixteen DIN type breakers (not included) and a GFCI AC outlet (not included). Requires optional FW-ACAs for connection of each FX Series Inverter/Charger.



FLEXware 1000 Power System

For applications with three or four OutBack FX Series Inverter/Chargers and up to four MX Series ----- Charge Controllers. Uses two FW-MP mounting plates. Powder-coated aluminum with stainless steel hardware.

FW1000-DC

DC breaker enclosure - fits at the DC side of up to four FX Series Inverter/Chargers. Includes ground bus bar, 1000 Amp DC shunt assembly with negative TBB breaker mounting screws - holds up to eleven 1 to 80 Amp, nine 100 or 125 Amp and six 175 or 250 Amp panel mount breakers (not included). Requires optional DCAs for connection of each FX Series Inverter/Charger.

FW1000-AC

AC breaker enclosure - fits at the AC side of up to four FX Series Inverter/Chargers. Includes ground bus bar and two DIN mounting brackets for up to thirty-two DIN type breakers (not included) and two GFCI AC outlets (not included). Requires optional ACAs for connection of each FX Series Inverter/Charger.

Inverters

With all the hallmark features you've come to expect from the **Radian inverter/charger**, the expanded Radian family includes **four models, seven operating modes** and **two advanced technologies**, all adding up to unmatched performance, reliability, value and system flexibility.



Radian Series Operating Modes

Mini Grid OPERATING MODE

Ideal for sites where sufficient renewable energy enables mostly off-grid operation.

Grid-Tied OPERATING MODE

Ideal for systems in regions with Feed-in-Tariff (FiT), net-metering or other incentive programs. Control use features include grid use timers.

GridZero OPERATING MODE

Ideal in areas where incentives are subject to change and utility sell-back options may be limited. Control use features include grid use timers.

Support OPERATING MODE

Ideal for sites with small generators or inadequate grid power. Control use features include system-level high battery transfer (HBX) programming, prioritizing batteries as primary source.

Backup OPERATING MODE

Ideal for systems where computers and other sensitive loads are present. Control use features include system-level high battery transfer (HBX) programming, prioritizing batteries as primary source.

UPS OPERATING MODE

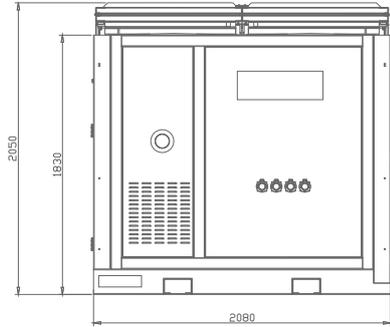
Ideal for commercial applications where uninterrupted power is mission-critical.

Generator OPERATING MODE

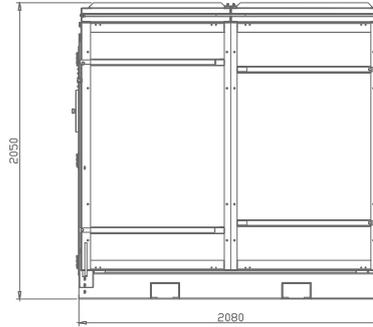
Ideal for systems with undersized or low power quality generators.

Dimensions

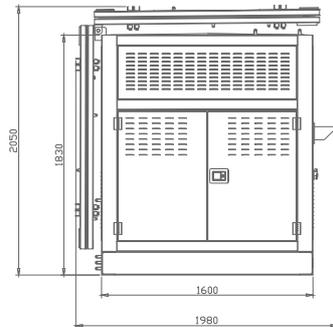
Container Solar & Genset (Side)



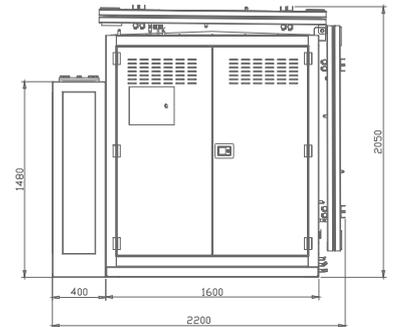
Container Solar (Front)



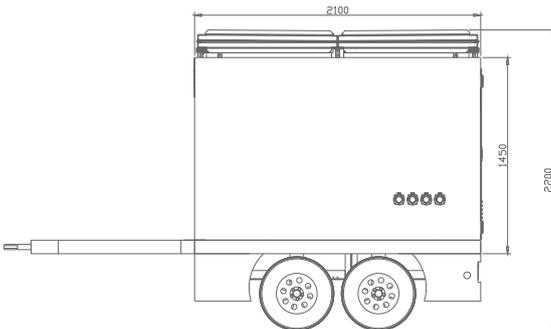
Container Solar & Genset (Back)



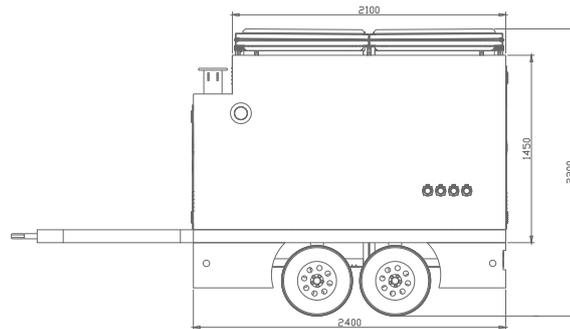
Container Solar & Wind (Side)



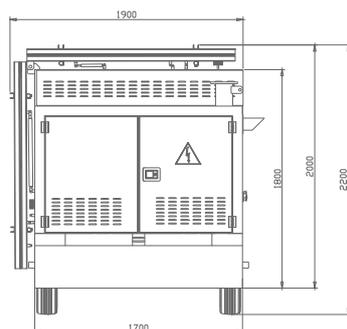
Mobile Solar (Side)



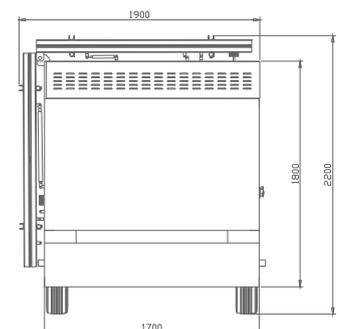
Mobile Solar Wind (Side)



Mobile Solar & Genset (Back)



Mobile Solar (Back)

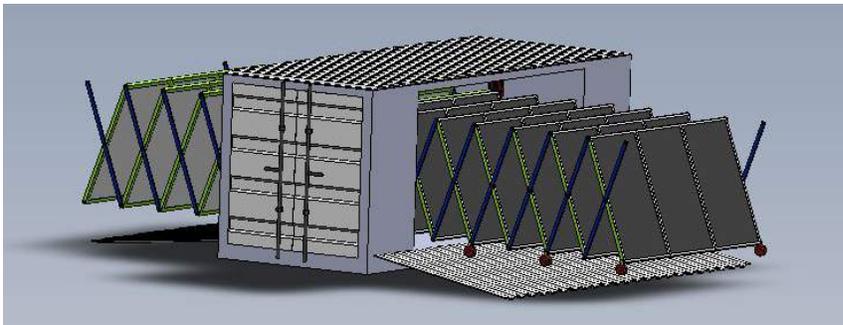


21 KW MOBILE SOLAR GENERATORS

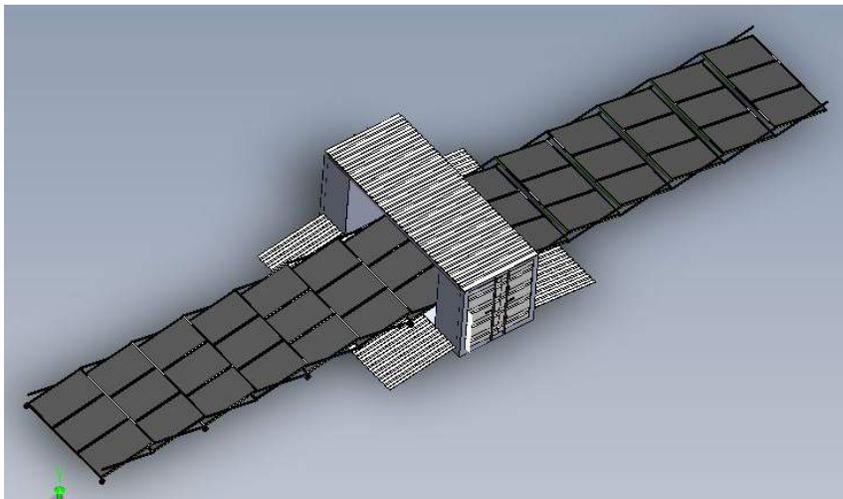


MOBILE OR CONTAINERIZED

The 21 kW mobile unit offers an optional, fully integrated wind turbine. Solar panels fold and store on the exterior of the trailer.



The 21 kW Containerized model transports on a flatbed trailer. Solar panels deploy easily from both sides of the container on wheeled racks.



Both models incorporate a last resort fossil fuel generator to ensure batteries remain fully charged when demand exceeds generation from solar and wind.

All power is clean as it runs through batteries - addition protection for electronics in remote locations.

REAR CABIN: DIESEL GENERATOR
MIDDLE CABIN: PV PANELS
FRONT CABIN: BATTERY AND INVERTER GROUP

SYSTEM GENERAL INFORMATION

MODEL	21 KW Mobile Solar Generator
	230 VAC / 400 VAC
INVERTER Prime Power kW	OUTBACK RADIAN SERIES 7000VA *3 SET= 21KW
Surge Power kW	42 kW
AC Output	60/50 Hz Single Phs
Inverter Protection	Overheat, Short Circuit, Low Battery
Battery Storage Type	GEL TYPE 2V TUBULAR 48 VDC 2000A
Battery Capacity	96 kWh
Auxiliary Connection	Remote Generator Start
Battery Monitoring	FLEXNET DC Battery Monitor
Operating Temperature	(°C) -20 to +60
Remote Control	MATE 3
Solar Charger	FLEX POWER 150/80
Pv Panel Capacity	21120 Wh
DIESEL GENERATOR	PERKINS 14 KVA PRIME POWER
FUEL TANK	75 LT
DIAMENTIONS (L * W * H)	6.06m * 2.44m * 2.59m
UNIT WEIGHT	9000 KG

INVERTER DATA SHEET
OUTBACK RADIAN GS4870E



Models

Nominal DC Input Voltage	48VDC
Continuous Output Power (@ 25°C)	7000VA
AC Output Voltage (Selectable)	230VAC (210-250VAC)
AC Output Frequency (Selectable)	50Hz (60Hz)
Continuous AC Output Current (@ 25°C)	30AAC
Idle Consumption (Invert Mode, No Load)	34W
Typical Efficiency	92%
CEC Weighted Efficiency	—
Total Harmonic Distortion	Max. Total Harmonic: <5% Max. Single Voltage Harmonic: <2%
Output Voltage Regulation	±2%
Maximum Output Current	1ms Peak: 100AAC 100ms RMS: 70.7AAC
Overload Capacity	100ms Surge: 16.3kVA 5 seconds: 11.5kVA 30 minutes: 7.9kVA
AC Input Voltage Range (Adjustable)	(L-N) 170 to 290VAC
AC Input Frequency Range (Default)	45 to 55Hz @ 50Hz (54 to 66Hz @ 60Hz)
Grid-Interactive Voltage Range (Default)	(L-N) 208 to 252VAC
Grid-Interactive Frequency Range	57.0 to 61.0Hz
Maximum AC Input Current	50AAC
Maximum Utility Interactive Current	30A
Continuous Battery Charge Output	100.0ADC
DC Input Voltage Range	40 to 64VDC
Temperature Range	Rated: -20 to 50°C (power derated above 25°C) Maximum: -40 to 60°C
Accessory Ports	Remote Temperature Sensor, MATE3 & HUB Communications
Non-Volatile Memory	Yes
Field Upgradable Firmware	Yes
Chassis Type	Vented
Certifications	IEC 62477-1, AS4777.2, AS4777.3, EN61000-6-1, EN61000-6-3, EN61000-3-2, EN61000-3-3, AS3100, CE, RoHS compliant per directive 2011/65/EU
Warranty	Standard 5 year



Engine

Manufacturer		PERKINS
Model		403A-15G
Cylinder Configuration		INLINE
No of Cylinders		3
Displacement	lt	1.496
Stroke	mm	90
Bore	mm	84
Compression Ratio		22.5:1
Aspiration		NATURAL INTAKE
Governor Type		MECHANIC
Cooling System		WATER
Coolant Capacity	lt	7
Lubrication Oil Capacity	lt	4.9
Electrical System	VDC	12
Speed / Frequency 50 Hz	rpm	1500 rpm / 50 Hz
Engine Gross Power (Standby 50 Hz)	kW	13.5
Fuel Consumption 110 % 50 Hz	lt/h	4.1
Fuel Consumption 100 % 50 Hz	lt/h	3.7
Fuel Consumption 75 % 50 Hz	lt/h	2.8
Fuel Consumption 50 % 50 Hz	lt/h	2.1
Exhaust Outlet Temperature 50 Hz	°C	490
Exhaust Gas Flow 50 Hz	m3/min	2.88
Combustion Air Flow 50 Hz	m3/min	1.08
Cooling Air Flow 50 Hz	m3/min	25.2

Alternator

Manufacturer		MARELLI
Model		MJB160XA4
No of Phases		3
Power Factor		0.8
No of Bearings		SINGLE
No of Poles		4
No of Leads		12
Voltage Regulation (Steady State)		± %1 [In Steady State]
Insulation Class		H
Degree of Protection		IP 23
Excitation System		AVR (Automatic Voltage Regulator), Brushless
Connection Type		STAR
Total Harmonic Content (No Load)		< %2
Frequency	Hz	50
Voltage Output 50 Hz	VAC	230 / 400
Rated Power (Standby) 400_50 Hz	kVA	15.4
Efficiency (4/4_400 V_50 Hz)	%	85



Specification

Positive electrode:	Tubular design plate with optimized corrosion and creep resistant, Calcium Tin Lead Alloy
Negative electrode:	Flat plate utilising Lead Calcium low gassing grid Alloy
Float voltage:	2.25 vpc \pm 1% at 25°C
Max. charge voltage:	2.35 vpc \pm 1% at 25°C
Electrolyte:	Thixotropic Sulphuric Acid Gel
Safety valve:	1-3 PSI Self-Resealing
Separators:	Microporous Plastic
Terminals:	Integral brass insert for M8 Bolt

Design life

Years:	20 years in float service @ 30°C.
Cycles:	3000 cycles @ 50% DOD
Electrical:	2V 100Ah - 2V 3000Ah at C/10 to 1.80vpc @ 25°C

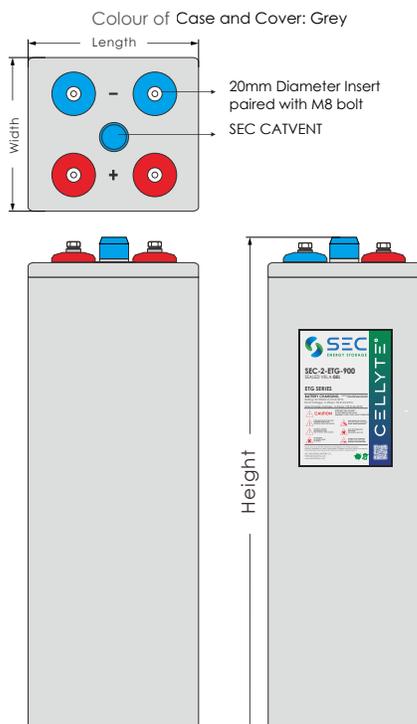
Product compliance

IEC	60896-21/22-2004
IEC	61427-2005
DIN	43539-T5 1984
DIN	40742:1999
ISO	9001:2015
ISO	14001:2004
Eurobat	

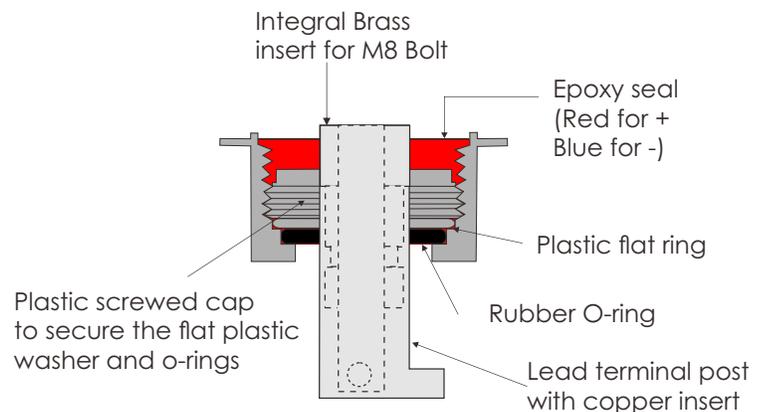


Engineering

Cell outline



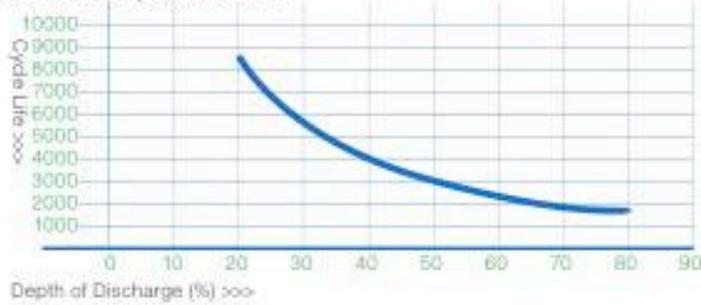
Triple post seal detail



Cycle life

Relationship between depth of discharge and life

Ambient temperature 25°C



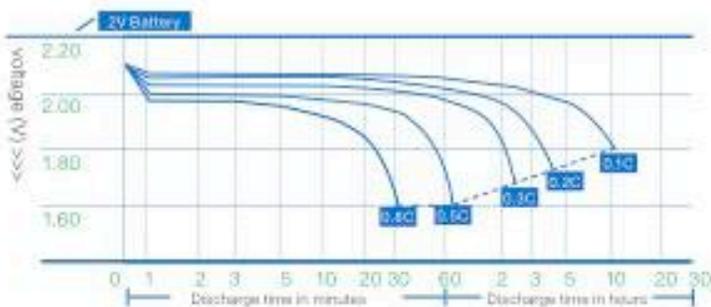
The depth of discharge critically affects the number of cycles which a battery will complete during its life time.

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Discharge characteristic

Discharge current VS discharge time curve

Ambient temperature 25°C

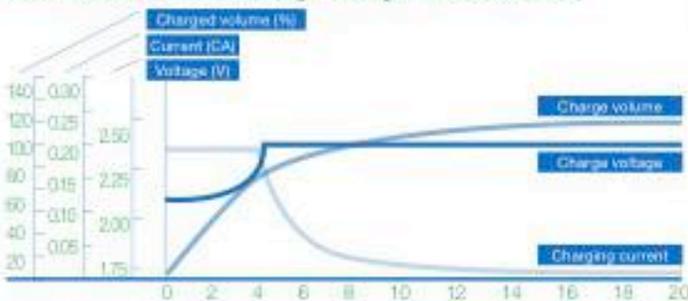


Discharge duration (h) >>>

Effect of discharge rate on battery capacity.

Charge method

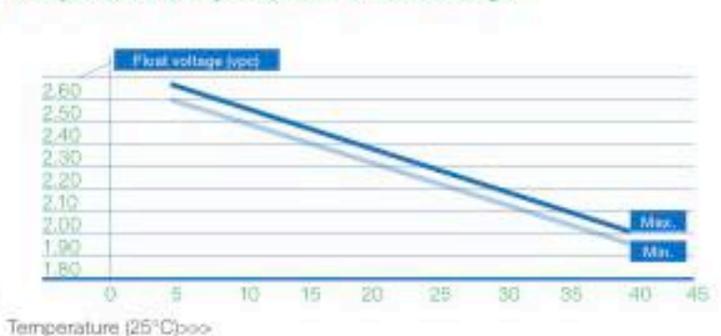
Continuous current/voltage charge characteristic



Charging time (hr) >>>

Charge compensation

Temperature compensation for float voltage



Temperature (25°C) >>>

The preferred charging procedure should be in accordance with DIN 41773, constant current/constant voltage (IU characteristic). Constant float charging utilizing a constant voltage charger is also acceptable.

Charging Voltage: $2.25V \pm 1\% \times \text{number of cells}$ measured at the battery terminals

Equalising or fast charging can occasionally be permitted, in which the charging voltage is $2.35V \times \text{number of series connected cells}$ for a maximum of an 8 hours fixed period (depends on state of charge). This will apply in deep discharge and limited recharge operations such as stand-by with parallel connections, automatic changeover to the charging voltage of $2.25V \pm 1\% \times \text{number of cells}$ should follow after this period.

Actual performance data may be $\pm 5\%$ (for data & weight) - $\pm 2\%$ (for dimension) from the figure shown.

For operation outside of these conditions please consult SEC Industrial Battery info@secbattery.com or your local sales representative



MATE3

Advanced System Display and Controller



- Program, Manage and Monitor Entire System
- Intuitive Menu Structure
- Easy-to-Read Graphical Display
- System Configuration Wizard
- Internet Enabled
- Field Upgradable
- Up to 1-Year of Data Logging
- SD Memory Card Slot



OpticsRE Compatible

The MATE3 system display and controller makes it easier than ever to program and monitor a complete OutBack Power system.

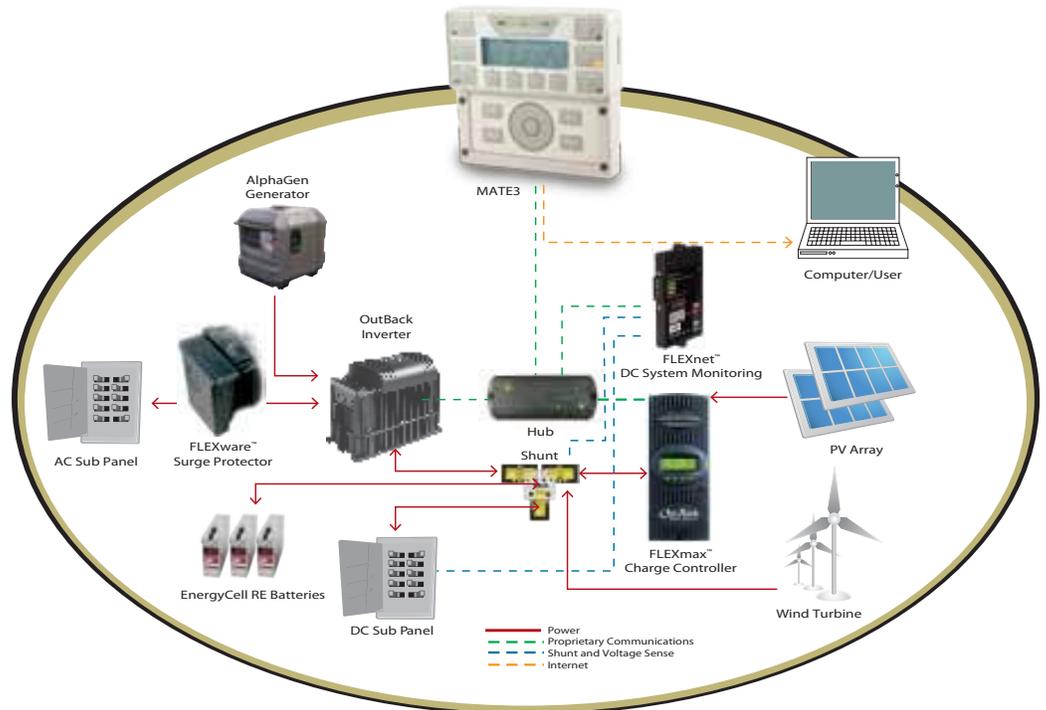
An intuitive user interface and integrated system configuration wizard make system setup and programming quick and seamless. The ability to set unique multi-level user passwords makes it possible to secure critical system settings from unintended changes while still allowing open access to necessary functions.

Other features making system management simpler include an easy-to-read graphical backlit LCD display, improved tactile buttons and user programmable "favorite" keys for immediate access to the most wanted features. An intuitive scroll wheel interface allows easy adjustment of system set points. Expandable SD memory increases data logging capacity as well as making it easy to upgrade units in the field.

A built-in clock and calendar function enables timer-based programming of inverter and charger operation. This setting allows the system to work with time-of-day power rates or to limit a generator's runtime to a specific time period of the day or week. All settings are stored in on-board memory to eliminate the need to reprogram in the event of a system shutdown or battery replacement. The MATE3 supports web-server access via an intranet to allow monitoring of an OutBack system.

MATE3 Specifications

	Description
Display	4.0 x 1.2" full graphical display
Quick System Access	5 system operation hot keys, 4 user programmable soft keys
Status Indicators	Nine LED Navigational Controls
Navigational Controls	5 navigational keys
Setpoint Adjustment	Touch sensitive scroll wheel
Communication Protocol	Proprietary OutBack Communications Protocol
Interconnect Cabling Included	Standard CAT5 network cable with RJ45 modular jack - 6' (2 m) included
PC Computer Interface	HTML system status dashboard over local intranet connection
Field Update Capability	Yes (includes Radian Series inverterchargers, FLEXmax Extreme charge controller)
Microprocessor	80MHz 32 bit processor
Set Point and Data Memory	8Mb RAM/ 64Mb of flash RAM
Clock/Calendar	On-board real time clock with battery backup
Operating Temperature Range	0 to 50°C
Mounting	Surface-mount (various brackets available)
Environmental Rating	Indoor Type 1 (IP 30)
Maximum Cable Length	300' (100 m)
Optional Accessories	MATE3 USB card
Warranty	Standard 5 year Warranty
Weight (lb/kg)	Unit: 1.4 / .64 Shipping: 3.0 / 1.36
Dimensions H x W x D (in/cm)	Unit: 7.1 x 7.5 x 1.6 / 18 x 19 x 4.1 Shipping: 3.25 x 9 x 13.5 / 9.26 x 22.9 x 34.3



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