

## GRID-TIED & OFF-GRID ENERGY STORAGE SYSTEMS (42KW - 210 KW)





Stand Alone Capable operation but welcomes input from solar and wind





### 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, seemlessly 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.



**CEG** Catalyst Energy Group



## **Company Overview**

The inevitable ascension of renewable energy has now occurred, fostered not only by the emergence innovative, economically attractive of 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 may 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.



#### GRID-TIED & OFF-GRID ENERGY STORAGE SYSTEMS (42 KW - 210 KW)

Stand Alone Capable operation but welcomes input from solar, wind, the grid, generators or any combination thereof



Single Phase Models

CATALYST	4-1
CATALYST	8-1
CATALYST	12-1
CATALYST	17-1

Integrated Magnum Off Grid Inverters, Solar Charger, Remote Generator Start and Remote Control Panel

#### **Three Phase Models**

CATALYST 9-3 CATALYST 15-3 CATALYST 24-3 CATALYST 30-3 Integrated Off Grid Victron Inverters, Solar Charger, Remote Generator Start and Remote Control Panel



### **Catalyst Single Phase Models**



## Catalyst 3 Phase Models



Color Remote Control



**Battery Monitor** 



Solar Charge Control



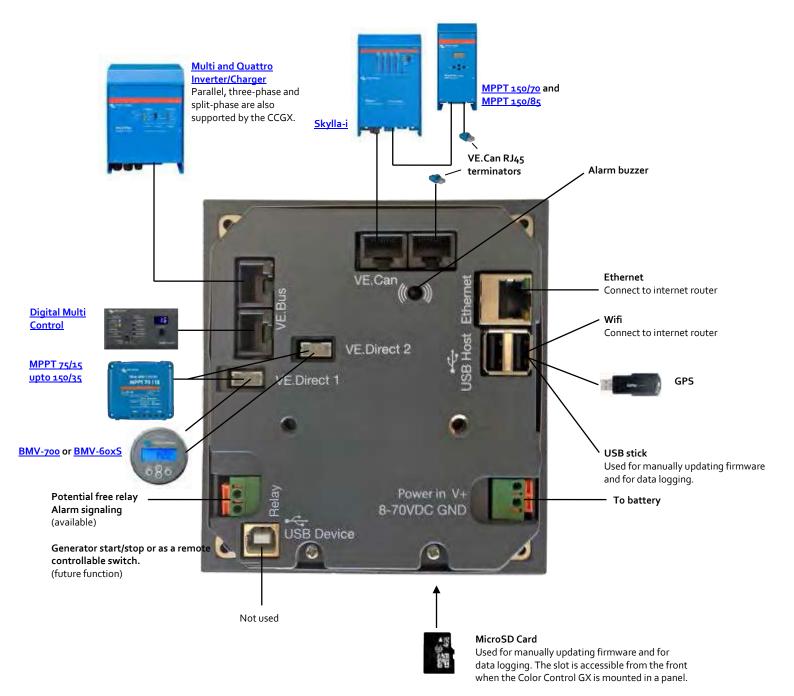


Inverter





#### Color Control GX schematic diagram



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## Catalyst Single Phase Models

MODEL	CATALYST 4-1	CATALYST 8-1	CATALYST 12-1	CATALYST 17-1	
	120 VAC / 240 VAC	120 VAC / 240 VAC	120 VAC / 240 VAC	120 VAC / 240 VAC	
Prime Power kW	4/4.3 kW	8 / 8.6 kW	12 / 12.9 kW	16 /17.2 kW	
Surge Power kW	8.5 kW	17 kW	25 kW	33 kW	
AC Output	60/50 Hz Single Phs	60/50 Hz Single Phs	60/50 Hz Single Phs	60/50 Hz Single Phs	
Inverter Protection	Overheat, Short Circuit, Low Battery				
Battery Storage Type	FLA (Flooded Lead Acid)				
Battery Capacity	14 kW	28 kW	37 kW	44 kW	
Auxiliary Connection	Remote Generator Start				
Battery Monitoring	LCD Battery Monitor				
Operating Temperature	(°C) -20 to +60				
Remote Control	Yes	Yes	Yes	Yes	
Solar Charger	100A DC Charge Controller (MPPT) DC Input up to 240VDC				
Solar Charger	1 SET	1 SET	2 SET	2 SET	
Pv Panel Capacity	6600 W	6600 W	13200 W	13200 W	
Weight (kg)	1050	1650	1960	2300	
Dimensions W x D x H (mm)	1000*900*1350	1000*1200*1350	1250*1850*1350	1400*1850*1350	





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## Catalyst 3 Phase Models

MODEL	CATALYST 9-3	CATALYST 15-3	CATALYST 24-3	CATALYST 30-3
	270 VAC / 400 VAC	270 VAC / 400 VAC	400 VAC	400 VAC
Prime Power kW	9 kVA	15 kVA	24 kVA	30 kVA
Surge Power kW	18 kVA	30 kVA	48 kVA	60 kVA
AC Output	60/50 Hz 3 Phs	60/50 Hz 3 Phs	50 Hz 3 Single Phs	50 Hz 3 Single Phs
Inverter Protection	Overheat, Short Circuit, Low Battery			
Battery Storage Type	48 VDC FLA (Flooded Lead Acid)			
Battery Capacity	37 kW	44 kW	59 kW	74 kW
Auxiliary Connection	Remote Generator Start			
Battery Monitoring	LCD Battery Monitor			
Operating Temperature	(°C) -20 to +60			
Remote Control	Yes	Yes	Yes	Yes
Solar Charger	85 A DC Charge Controller (MPPT) DC Input up to 150VDC			
Solar Charger	2 SET	4 SET	6 SET	8 SET
Pv Panel Capacity	10000 W	20000 W	30000 W	40000 W
Weight (kg)	1720	1930	2600	2980
Dimensions W x D x H (mm)	1600*1850*2100	1600*1850*2100	1600*1850*2100	1600*1850*2100





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