

Off-grid Hybrid Generators



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, 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.



CEG
Catalyst Energy Group



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.



OFF-GRID HYBRID POWER GENERATORS

	CEG 45-15-24 PERKINS	CEG 60-15-48 PERKINS	CEG 80-30-48 PERKINS	CEG 100-30-48 PERKINS	
System	MODEL	CEG 45-15-24 PERKINS	CEG 60-15-48 PERKINS	CEG 80-30-48 PERKINS	CEG 100-30-48 PERKINS
	AC Output Voltage (50 Hz)	230 1Ph /400 3Ph			
	Power Output Connection	3 x 32 A (1Ph), 1 x 63 A (3Ph)	3 x 32 A (1Ph), 2 x 63 A (3Ph)	3 x 32 A (1Ph), 2 x 63 A (3Ph), 1 x 125 A (3Ph)	
	Weight kg	4600	5600	5700	6200
	Dimensions WxDxH (mm)	2991 x 2438 x 2591 (Standard ISO 10' Container)			
Generator	PERKINS ENGINE + MARELLI ALTERNATOR				
	Prime Power (kVA/kWe)	45/36	60/48	80/64	100/80
	Standby Power (kVA/kWe)	49.6/39.7	66/53	88/70	110/88
	Fuel Tank Capacity (lt)	1000			
Inverter-Battery System	Standby Power	15 KVA	15 KVA	30 KVA	30 KVA
	Surge Power	22,5 KVA	22,5 KVA	45 KVA	45 KVA
	AC Output Current (A)	56	56	80	80
	AC Input Current (A)	50 A 3ph	50 A 3ph	125 A 1Ph / 50 A (3Ph)	125 A 1Ph / 50 A (3Ph)
	Battery Capacity (kWh)	24	48	48	48
	Charge Time (Hours)	7.5 hours			
	Solar Charger	MPPT Solar Charge Controller			
	Solar Array Connection	7 kWp			


OFF-GRID HYBRID POWER GENERATORS

	MODEL	CEG142-60-80 PERKINS	CEG 200-60-130 PERKINS	CEG 250-80-160 PERKINS	CEG 350-80-180 PERKINS
System	AC Output Voltage (50 Hz)	230 1Ph / 400 3Ph			
	Power Output Connection	3 x 32 A (1Ph), 1 x 63 A (3Ph)	3 x 32 A (1Ph), 2 x 63 A (3Ph)	3 x 32 A (1Ph), 2 x 63 A (3Ph), 1 x 125 A (3Ph)	
	Weight kg	TBC	TBC	TBC	TBC
	Dimensions WxDxH (mm)	6060 x 2430 x 2590 (Standard ISO 20' Container)			
		PERKINS ENGINE + MARELLI ALTERNATOR			
Generator	Prime Power (kVA/kWe)	142 / 114	200 / 160	250 / 200	350 / 280
	Standby Power (kVA/kWe)	157 / 126	220 / 176	275 / 220	400 / 320
	Fuel Tank Capacity (lt)	1500 / 2000			
Inverter-Battery System	Standby Power	60KVA	60 KVA	80 KVA	80 KVA
	Surge Power	90 KVA	90 KVA	120 KVA	120KVA
	AC Output Current (A)	160	240	240	240
	AC Input Current (A)	100 A Per ph	150 A Per ph	150 A Per ph	150 A Per ph
	Battery Capacity (kWh)	80	130	160	180
	Charge Time (Hours)	7.5 hours			
	Solar Charger	MPPT Solar Charge Controller			
Solar Array Connection	7 kWp				



OFF-GRID HYBRID POWER GENERATORS

	MODEL	CEG 121-60-80 DOOSAN	CEG 200-60-130 DOOSAN	CEG 250-80-160 DOOSAN	CEG 350-80-180 DOOSAN
System	AC Output Voltage (50 Hz)	230 1Ph /400 3Ph			
	Power Output Connection	3 x 32 A (1Ph), 1 x 63 A (3Ph)	3 x 32 A (1Ph), 2 x 63 A (3Ph)	3 x 32 A (1Ph), 2 x 63 A (3Ph), 1 x 125 A (3Ph)	
	Weight kg	TBC	TBC	TBC	TBC
	Dimensions WxDxH (mm)	6060 x 2430 x 2590 (Standard ISO 20' Container)			
		DOOSAN ENGINE + CRAMPTON ALTERNATOR			
Generator	Prime Power (kVA/kWe)	121 /114	200 / 160	250 / 200	320/ 280
	Standby Power (kVA/kWe)	133/ 126	220 / 176	275 / 220	350 / 320
	Fuel Tank Capacity (lt)	1500 / 2000			
Inverter-Battery System	Standby Power	60KVA	60 KVA	80 KVA	80 KVA
	Surge Power	90 KVA	90 KVA	120 KVA	120KVA
	AC Output Current (A)	160	240	240	240
	AC Input Current (A)	100 A Per ph	150 A Per ph	150 A Per ph	150 A Per ph
	Battery Capacity (kWh)	80	130	160	180
	Charge Time (Hours)	7.5 hours			
	Solar Charger	MPPT Solar Charge Controller			
	Solar Array Connection	7 kWp			

DIESEL GENERATORS SPARE PARTS, OIL, DIESEL AND MAINTENANCE COST

GENERATOR PRIME POWER KVA	OIL FILTER FUEL FILTER FUEL PRE FILTER ELEMENT; AIR FILTER V BELT; ALTERNATOR V BELT; FAN BREATHER VALVE THERMOSTAT	OIL	SERVICE	TOTAL USD		DIESEL LT
45 KVA	\$6,100	\$918	\$3,600	\$10,618	+	\$72,000
60 KVA	\$6,200	\$1,188	\$3,600	\$10,988	+	\$100,800
80 KVA	\$6,300	\$1,404	\$3,600	\$11,304	+	\$165,600
100 KVA	\$6,400	\$1,836	\$3,600	\$11,836	+	\$201,600
142 KVA	\$6,500	\$1,944	\$3,600	\$12,044	+	\$237,600
200 KVA	\$6,600	\$2,376	\$3,600	\$12,576	+	\$331,200
250 KVA	\$6,800	\$3,348	\$3,600	\$13,748	+	\$403,200
350 KVA	\$7,000	\$3,888	\$3,600	\$14,488	+	\$504,000

CALCULATION PARAMETERS:

Generators running 7/24, 100% power, 20 days in Month, 360 days/year

Filters change every 200 hours

Diesel prices please check http://www.globalpetrolprices.com/diesel_prices/

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