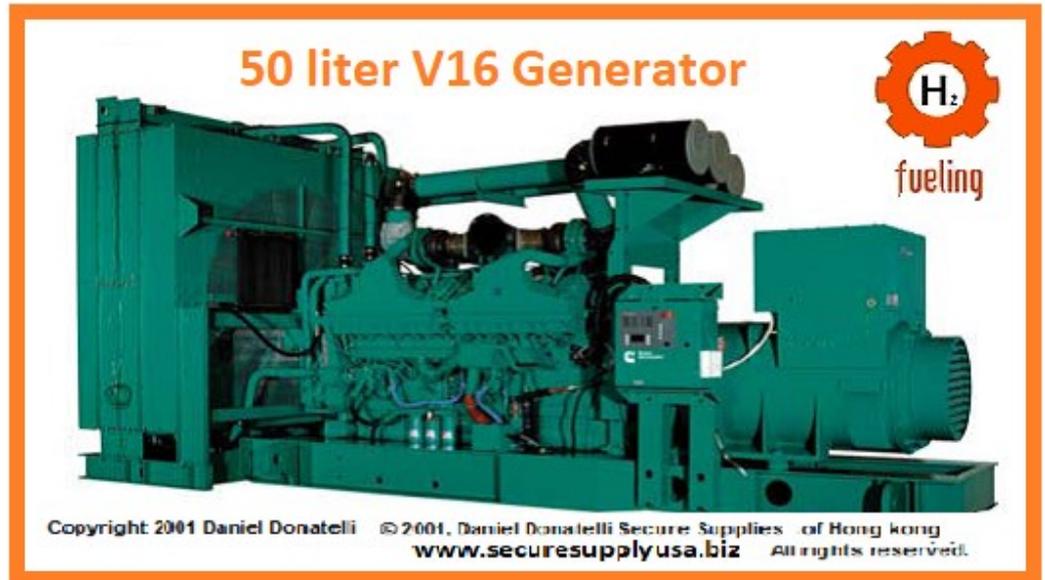


# 1 MW Power Plants V16



Premium engineering for exceptional performance with Hydrogen Rotary Valve / Injection Control and Ignition Systems. Reliable, versatile, efficient-our Hydrogen Rotary Valve Fitted on QSK38 series which utilize premium engineering for exceptional performance.

These outstanding engines engine are equipped with a high performance lubrication pressure fuel pumps, Modular Common Rail Gaseous Fuel System and state-of-the-art electronic controls for superior efficiency and diagnostics. (LTA) and highly efficient turbo-charging for lower cylinder temperatures, lower emissions and less fuel consumption.



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# Hydrogen Fueled Power Plant

Secure Supplies Fueling Healthy Communities



## Generator Hydrogen Gaseous KTA50-09 -G9 Rotary Valve Technique Specification

Bore*stroke	159 mm* 159mm
Intake method	Turbocharged&Intercooled
Fuel system	PT Pump Direct Injection
Cooling method	Fluid Cooling 140L
Governor Type	Mechanical Control
Fuel Consumption @ Rated Power	330L/hr
Fuel Consumption @ Standby Power	392L/hr
Idel Speed	725-775r/min
Starting System	Electrical Starting Motor 12V/24V
Lowest Starting Temp ,(without auxiliary system)	-12°C

## Generator Hydrogen Gaseous KTA50-09 -G9 Rotary Valve Trade information

Warranty time	1year or 1500h
Engine Size(L*W*H):	2978mm*2080mm*1780mm
Weight net	5360 Kg
Delivery port	USA
Delivery time	15 working days
Trade termes	FOB/CIF/CNP
Payment termes	T/T. L/C

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**Electric Generators, Water Pumps. 24 hr Continuous operation**

## Alternator Specifications

Make	Stamford	Stamford
Frame size / Model No.	HCK6Z	PI734C
Voltage Regulation	± 0.5%	± 0.5%
Insulation	Class H	Class H
Standard Enclosure	IP 23	IP 23
Winding Pitch	2 / 3 Pitch	2 / 3 Pitch
Stator Winding	Double layer lap	Double layer lap
Rotor	Dynamically balanced	Dynamically balanced
Wave form distortion	No load < 1.8 %, non distorting balanced linear load < 5 %	No load < 1.8 %, non distorting balanced linear load < 5 %
Telephone Interference Factor	Better than 50	Better than 50
Total Harmonic Factor	Better than 2%	Better than 2%

## Comformance Standards

IS 4722, BS 5000, IS 1460, ISO 8528, BS 5514, ISO 3046

## Rating Definitions

Prime Power (PRP):  
Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

- Fuel consumption data is based on diesel having specific gravity of 0.85 and conforming to IS:1460
- Oil consumption data is based on oil having specific gravity of 0.89 and meeting CH4 API categories
- Fuel consumption tolerance is +5%

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### HEALTHY COMMUNITY

### FUELING & POWER SECURITY

- ◆ LESS HARMFUL EMISSIONS
- ◆ LESS FUELING COSTS
- ◆ LESS FUEL CONSUMPTION

### SERVICE ADVANTAGES

- ◆ LESS OIL CHANGES
- ◆ NO SERVICING TO INJECTION VALVE SYSTEM FOR LIFE OF THE ENGINE

### FUEL TYPES

- ◆ HYDROGEN STANDARD
- ◆ LPG OPTION
- ◆ FLARE GAS OPTION
- ◆ METHANE OPTION
- ◆ BIO GAS OPTION
- ◆ CNG OPTION
- ◆ REFINERY GAS

### LOW REACTANCE

A Advanced Low Reactance Hydrogen Generator Design, offers a low wave form distortion with non linear loads, and provides excellent motor starting capabilities in all conditions.

# 1 MW Power Plants V16



## Exhaust

Exhaust Pipe Normally

Acceptable 5 inch 125 mm

## ZERO DOWNTIME

Premier Machinery

Industry leader in High performance prime power units.

## TURNKEY SOLUTIONS

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[www.securesupplyusa.biz](http://www.securesupplyusa.biz)

## Reliable and durable

K50 series' diesel engine with strong regroundable crankshaft, high strength connecting rod, low pressure fuel lines, STC (Step Timing Controls) injectors and high volume coolant system make 'K50 series' generating sets, more reliable and durable. Engines have clocked millions of hours operating in some of the world's most demanding conditions. Current engines are regularly upgraded with new technologies for better performance and economy. The ultimate proof of superior performance

## Unmatched Warranty

'K50 series' diesel engine generating sets are a truly cost effective solution to long term power need backed by industry best, 2 years / 5000 hrs warranty, for the entire generating set.

## Advantages

Special features of 'K50 series' engines like STC (Step Timing Controls) injectors, low temperature aftercooler, square combustion chamber, optimised turbocharging and precision heavy duty camshaft make these engines the ultimate in exceptional fuel efficiency all across the operating range.

## Control panel: Digital Control 24/7



The control system is an integrated microprocessor based generator set control system providing voltage regulation, engine protection, alternator protection, operator interface and isochronous governing.

**AmpSentry** – Includes integral AmpSentry protection, which provides a full range of alternator protection function which are matched to the alternator provided.

**Power management** – Control function provides battery monitoring, testing and a smart starting control system.

**Advanced control methodology** – Three phase sensing, FET based full wave rectified voltage regulation and a PWM output for stable operation with all load types.

**Communications interface** – Control comes standard with PCCNet and Modbus interface.

**Regulation compliant** – Prototype tested: UL, CSA and CE compliant.

**Service** - PC-based service tool available for detailed diagnostics, setup, data logging and fault simulation.

**Reliable design** – For reliable operations in harsh environment.

**Multi-language support**

**Independent of PC/ laptop for setting up**

## Standard Scope

**Engine:** 'K50 series' direct injection, water cooled engine, 16 cylinder, 4 stroke, rated at 1500 RPM, conforming to ISO 3046 / BS 5514 has the following specifications:

- PT fuel pump
- Heavy duty STC injectors
- Holset turbocharger, pulse tuned exhaust manifold, stainless steel exhaust flexible connections
- Radiator or heat exchanger, coolant inhibitor
- Plate type lube oil cooler
- Outboard aftercoolers
- Full flow paper element filters - fuel, lube oil and by-pass
- Dry type replaceable paper element air cleaner with restriction indicator
- Flywheel housing & flywheel to suit single/ double bearing alternator
- Holset flexible coupling for double bearing alternator
- Holset flexible coupling for double bearing alternator
- Starting motor – Electric, battery charging alternator
- microprocessor based genset controller
- First fill lube oil

**Alternator:** Stamford brushless alternator

- Separately excited, self-regulated
- Class 'H' insulation
- Salient pole revolving field
- Single / double bearing
- PMG standard

**Operator panel features** – The operator panel, in addition to the alternator, displays the Utility/ AC Bus data.

## Operator/ display functions

- 320 x 240 pixels graphic LED backlight LCD with bar graph for displaying electrical parameters
- Auto, manual, start, stop, fault reset and lamp test/panel lamp switches
- Alpha-numeric display with pushbuttons
- LED lamps indicating genset running, remote start, not in auto, common shutdown, common warning, manual run mode, auto mode and stop

## Conformance Standards

IS 4722, BS 5000, IS 1460, ISO 8528, BS 5514, ISO 3046

## Rating Definitions

Prime Power (PRP):

Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

- Fuel consumption data is based on diesel having specific gravity of 0.85 and conforming to IS:1460
- Oil consumption data is based on oil having specific gravity of 0.89 and meeting CH4 API categories
- Fuel consumption tolerance is +5%

## Typical diesel genset dimensions\*

Genset Model	Rating (KVA)	Length (mm)	Width (mm)	Height (mm)	Weight (Kgs.) (Dry)	Std. Fuel Tank Capacity (Ltrs)
CP1250 D5 P	1250 KVA	6165	2235	2877	10800	
CP1500 D5 F	1500 KVA	6090	2075	2850	12250	



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HYDROGEN  
Electric Generator  
**engines**  
fueling healthy communities

# 1 MW Power Plants V16



## Exhaust

Exhaust Pipe Normally  
Acceptable 5 inch 125 mm

## ZERO DOWNTIME

Premier Machinery  
Industry leader in High  
performance prime power  
units.

## TURNKEY SOLUTIONS

For more information on  
any of our products or  
services please visit us on  
the Web at:  
[www.securesupplyusa.biz](http://www.securesupplyusa.biz)

## Bio Gas Choice and Hydrogen Fueled Options



**This Healthy Community Fueled  
Solution Means Emissions are Extremely Small.**

### 1500 rpm (50Hz Ratings)

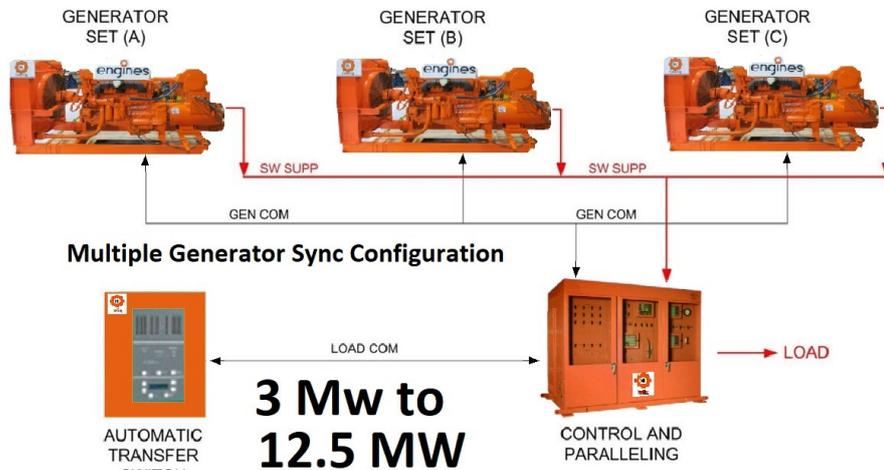
Gross Engine Output			Net Engine Output			Typical Generator Set Output					
Standby	Prime	Base	Standby	Prime	Base	Standby (ESP)		Prime (PRP)		Base (COP)	
kWm/BHP			kWm/BHP			kWe	kVA	kWe	kVA	kWe	kVA
1227/1645	1097/1470	900/1206	1192/1598	1074/1440	877/1176	1120	1400	1020	1275	842	1052

### 1800 rpm (60 Hz Ratings)

Gross Engine Output			Net Engine Output			Typical Generator Set Output					
Standby	Prime	Base	Standby	Prime	Base	Standby (ESP)		Prime (PRP)		Base (COP)	
kWm/BHP			kWm/BHP			kWe	kVA	kWe	kVA	kWe	kVA
1380/1850	1220/1635	1000/1340	1328/1781	1182/1585	962/1290	1250	1610	1135	1418	924	1154

## S3 Step 3

### Control Panel Installation and Upgrades



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# 1 MW Power Plants V16

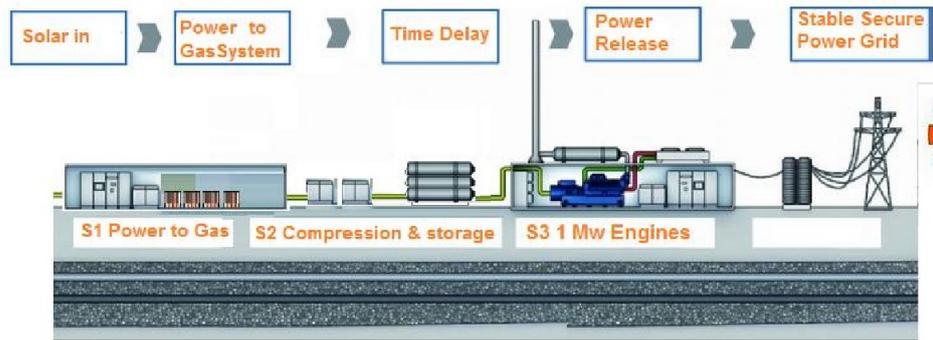


## ROTARY VALVE KT A50 - G3

Outstanding Power  
Production Performance  
for a Modern World



Secure grid level power when you need it.



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Mb+ 66 83 647 3443

### Fuel Consumption 1500 rpm ( 50 Hz)

%	kWm	BHP	L/ph	US gal/ph
<b>Standby Power</b>				
100	1227	1645	293	77.4
<b>Prime Power</b>				
100	1097	1470	261	69.0
75	822	1102	199	52.5
50	548	735	139	36.6
25	275	368	76	20.0
<b>Continuous Power</b>				
100	900	1206	216	57.1

### Fuel Consumption 1800 rpm ( 50 Hz)

%	kWm	BHP	L/ph	US gal/ph
<b>Standby Power</b>				
100	1380	1850	330	87.3
<b>Prime Power</b>				
100	1220	1635	291	76.9
75	915	1226	222	58.7
50	610	818	157	41.6
25	305	409	89	23.6
<b>Continuous Power</b>				
100	1000	1340	242	63.8

#### Gaseous Fueling Consumption Guide

1097 kw X 0.3 Nm<sup>3</sup>/H= 329 CBM/H(Normal Meter Cubed per Hour)=329000L/H=5483L/min 0.1-0.4Mpa  
1294 kw X 0.3 Nm<sup>3</sup>/H= 388 CBM/H(Normal Meter Cubed per Hour)=388000L/H=6467/min 0.1-0.4Mpa

Authorised  
Representative

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