

## WTI35E – 35kWe Generator

### General Information

- Generator set rating of 35kWe prime power output. These ratings are based upon standard rating conditions. It may be necessary to derate the set's output for altitudes above 1000' (305 meters) or for ambient temperatures above 77 F (25 C).
- Available in 120/240V single phase, or 120/208V, 277/480V, and 347/600V three phase at 60hz.
- The engine and form wound four pole AC generator are direct coupled and mounted on a rugged steel base frame. All components are suitable for prime power usage
- The generator set is thoroughly load tested prior to shipment

### Standard Engine

- Kubota Natural Gas model WG3800 Inline 4 engine with full flow, replaceable lube oil, fuel, and air filters. Electronic speed governing provides 0.5% speed regulation, no load to full load. EPA certified with catalysts.
- Liquid cooled with industrial grade radiator and belt driven blower fan
- Available in Natural Gas or Propane

### Standard Generator

- Newage Stamford UCI224D form wound, Brushless, four pole (1800 rpm) generator
- Solid state, +/- 1% automatic voltage regulation
- PMG excitation
- CSA approved construction

### Standard Controls and Accessories

- Deep Sea DSE7410 Standard controller c/w 4 output relays
- Built in Modbus and Ethernet Communications
- Safety shutdowns, electrical protections included
- Emergency stop button
- Resettable fusing

### Ratings

Voltage	Prime Power Rating – 105C rise		
	KWe/KVA	Amps	PF
120/240	35/35	145	1
120/208	35/43	121	0.8
277/480	35/43	53	0.8
347/600	35/43	42	0.8

## Technical Information

### Engine

Manufacturer	Kubota
Model	WG3800
Displacement (L)	3.769 L
Configuration	Inline 4
Bore and Stroke (mm)	100 x 120
Rated Speed	1800 rpm
Compression Ratio	10:1
Engine Weight (Dry)	268 kg
Flywheel Housing	SAE 3

### Fuel System

Fuel type	Natural gas
Specific Fuel Consumption	0.38 lb./HPH
Fuel Requirements -100% Load	437.23 SCFH
(Based on a LHV of 1090 BTU/scf. Actual fuel consumption varies with site conditions and fuel energy content)	
Fuel Pressure	.98 – 3.45 kPa
Fuel Connection	1.5" NPT

Fuel type	Propane Liquid
Specific Fuel Consumption	0.395 lb./HPH
Fuel Requirements -100% Load	26.27 lb./hr.
Fuel Pressure	15 – 240 PSI
Fuel Connection	1/4" NPT

### Oil System

Grade	SAE 10W-30 Low Ash
Motor Oil Capacity	75 L
Filter	Full Flow Spin on with Bypass filter

### Cooling System

Radiator	Finned Tube
Material	Copper core, soldered
Fan Type	30" blower
Recommended coolant	50/50
Cooling Air flow	80 m3/min
Coolant Capacity (Inc. Rad)	9 L

### Air Intake

Filter	Replaceable element
Combustion Air Flow	2.6 m3/min

### Exhaust System

Exhaust flow at rated kW <sub>e</sub>	8.2 m3/min
Exhaust temperature at rated kW <sub>e</sub>	1420°F

### DC Electrical System

Starter	12V, 2.5kW
Alternator	12V, 100 Amp
Battery Required	12V, 650CCA min

### Alternator

Manufacturer	Newage Stamford
Model	UCI224D
Construction	Form wound, four pole, Brushless Single Bearing

### 60 Hz Voltages and Ratings (3 phase)

Voltage	125 Rating	105 Ratings
120/240	44kW	40kW
120/208	48kW	42kW
277/480	52kW	46kW
347/600	52kW	46kW

Voltage Regulator (standard)	SX460 AVR +/- 1.05
Telephone Interference	THF < 2%
Winding Pitch	Two thirds
Control System	Self excited (PMG optional)
Weight	307 kg
Cooling Air Flow	0.216 m3/sec

### Ancillary Equipment

Mounting	Steel Base with Mounting Holes
Isolators	Six composite mounts

### DeepSea 7410 Controller

Provides Generator set control, monitoring, diagnostics for single generator systems with premium performance and flexibility.

- 4-line back lit LCD display provides local data access
- Measurements are selectable in metric or English units
- Remote communication through serial configuration
- Controller supports Modbus RS485 or Ethernet protocol
- Integral PLC editor for easy configuration
- Optional Heated display
- Display and storage of engine codes
- 4 digital outputs with form "C" contacts
- 6 configurable digital inputs