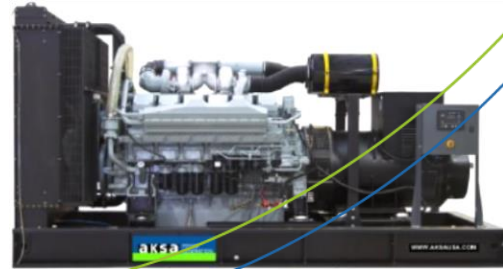


**AKSA Power Generation** has been producing industrial generator sets with an innovative compact design and excellence in quality for over 30 years. AKSA has been providing reliable power through three main production plants and over 15 branch offices worldwide.

Alternator (125 °C Rise)	Voltage	Ph	Pf	Hz	Stand-by Ratings		Prime Ratings	
					kW/kVA	Amp	kW/kVA	Amp
HCI634G Winding #311	480/277V	3	0.8	60	800/1000	1203	720/900	1083
	440/254V	3	0.8	60	800/1000	1312	720/900	1181
	416/240V	3	0.8	60	800/1000	1388	720/900	1249
HCI634H Winding #311	240/139V	3	0.8	60	800/1000	2406	720/900	2165
	240/120V	3	0.8	60	800/1000	2406	720/900	2165
	208/120V	3	0.8	60	800/1000	2776	720/900	2498



## Rating Definition

**Stand-by Power (Maximum):** Power available at variable load in the event of main power network failure. **No over load is permitted.**

**Prime Power:** Power available at variable load in lieu of a main power network. Overload of 10% is permitted for 1 hour in every 12 hours of operation.

The above ratings represent the engine performance capabilities to conditions specified in accordance with ISO 8528/5 & ISO3046.

**Derating may be required for conditions outside of the test conditions.**

## Codes & Standards

### U.S.EPA

**EPA Certified Tier2** for Emergency Stationary Applications.



The Generator set is **UL2200 listed**. Dual wall **UL142** listed fuel tanks are also available.



The Generator set is designed and manufactured in a facility certified to **ISO9001** standards.



The Generator set is designed and manufactured in a facility certified to **ISO14001:2004** standards.



The Generator meets **NFPA70, 99, 110, 37** Level 1 when equipped with the necessary accessories and installed per NFPA standards.

## Standard Features

**AKSA Power Generation** provides **single source responsibility** for the generator set & accessories.

The generator set, with its components, are **prototype tested** and **production tested** according to the UL test program.

**Mitsubishi Heavy Duty** four cycle industrial diesel engine delivers low emission, reliable power, fuel efficiency and fast response to load changes.

**Newage Stamford** industrial generators meet the requirements of BS EN 60034 and the relevant sections of other international standards such as BS5000, VDE0530, NEMA MG1-32, IEC34, CSA C22.2-100, AS1359.

**Non-proprietary, NFPA110 compliant control system** provides total gen-set system integrated control, protections, metering, automatic starting/stopping with options of remote control, remote display or remote annunciation.

**Heavy duty base frame** with integral pad **vibration isolators** eliminates the need for under unit spring vibration isolators.

## Engine Data

Manufacturer	<b>Mitsubishi</b>
Model	<b>S12A2-Y2PTAW</b>
Cylinders	12, 60 °V
Max. power @ rated rpm; kWm (BHP)	900 (1207)
Brake mean effective pressure; Psi	256
Aspiration & Cooling	Turbo charged
Total displacement; L (in <sup>3</sup> )	33.93 (2071)
Bore; in. (mm)	5.91 (150)
Stroke; in. (mm)	6.30 (160)
Compression ratio	15.3:1
Governor type	Electronic, ± 0.25
Rated rpm	1800
Rotation	Anti-clockwise viewed on flywheel

## Engine Electrical System

Charging alternator	24V, Negative Ground
Alternator rating; (Ah)	25
Starter motor power; (kW)	6.0 x 2
Starter motor rated voltage; (dc)	24
Battery quantity x rating & CCA	4 x 200Ah, 1150

## Fuel System

Injector System	Bosch P Type x 2
Fuel supply connection size	5/8" NPT
Fuel return connection size	5/8" NPT
Max. fuel lift; m (ft)	3 (9.84)
Max static head of return pipe; mmHg	150
Fuel filter & water separator	Available

## Fuel Consumption (gph)

110% Load	67.4
100% Load	58.4
75% Load	41.7
50% Load	28.5
25% Load	16.6

## Exhaust System

Exhaust gas flow; (m <sup>3</sup> /min)	232
Max. back pressure; mm H <sub>2</sub> O	600
Exhaust outlet size; (mm)	202

## Cooling System

Radiator ambient temp; °C (°F)	50 (122)
Coolant capacity –engine only; L (gal)	100 (26.4)
Max external friction head at engine outlet; Psi	5.0
Coolant pump drive	Gear
Thermostat operation range; °C	65-85
Max coolant temp @ engine outlet of jacket; °C	98
Cooling fan type	Pusher
Intake air flow; m <sup>3</sup> /min	88
Engine coolant flow; Gpm	291
Energy to coolant; BTU/min	20418
Energy to ambient; BTU/min	4375
Energy to air cooler; BTU/min	16043
Air filter	Paper element

## Lubrication System

Oil capacity; L (gal)	120 (31.7)
Oil capacity of standard pan	
High; L (gal)	100 (26.4)
Low; L (gal)	80 (21.1)
Oil cooler	Water cooled
Oil pressure at rated speed; Psi	57 ~ 86
Oil temp (continuous operation); °C	110

## Alternator Data

Manufacturer	<b>Stamford</b>	
Model	<b>HCI634G/H</b>	
Design	4 Pole, drip proof rotating field	
Exciter type	P.M.G.	
Stator	2/3 winding pitch	
Rotor	Single bearing, flexible disc	
Leads	6	
Efficiency	<b>HCI634G</b>	<b>HCI634H</b>
480V	95.5	96.0
240V (Delta)	95.3	95.8
Voltage regulator	Solid state, Volts/Hz	
Voltage regulation	0.5%	
PMG	0.5%	
Insulation	Class H	
Protection	IP23	
Temp. rise @ 40°C ambient	125°C Prime 150°C Standby	
Alternator Cooling	Direct drive Centrifugal Blower	
Cooling air; m <sup>3</sup> /min	0.8	
Waveform distortion	No load < 1.5% Non-distorting balanced linear load < 5%	
Max. over-speed; rev/min	2250	
Telephone influence factor (TIF)	< 50	
Telephone harmonic factor (THF)	< 2%	
Sustained short circuit current 10sec; (amp)	<b>HCI634G</b>	<b>HCI634H</b>
Star (WYE)	3500	4000
Delta	6062	6928

## Locked rotor kVA (skVA) @30% voltage dip

	<b>HCI634G</b>	<b>HCI634H</b>
480/277V - 3ph	2350	2675
416/240V - 3ph	1750	2000

## Control System



**DSE7320** is an advanced control system, suitable for a wide variety of single, diesel or gas, gen-set applications. Monitoring and an extensive number of engine parameters, the module displays warnings, shutdowns and engine status information on the back lit LCD screen, illuminated LEDs, remote PC and via SMS text alerts (with external modem).

- UL recognized, NFPA110 Level 1 compatible
- LCD text display, key menu navigation and front panel editing
- Off/Manual/Auto model switch
- Two wire starting/stopping in Auto mode
- Engine exerciser
- IP65 front panel rating with supplied sealing gasket
- Configurable 9 inputs, 8 outputs with expansion capability
- Real time clock provides accurate event logging
- Fully configurable via DSE Configuration Suite PC software
- Remote SCADA monitoring and BMS integration features
- License free PC software

## Protections

- Gen. Voltage - under/over
- Gen. Frequency - under/over
- Engine Speed - under/over
- Engine Oil pressure - low
- Engine Temp. - low/high
- Battery Voltage - low/high
- Weak battery
- Fail to start/stop
- Charge fail
- Over current & load(kW/kVA<sub>r</sub>)
- Unbalanced load
- Independent Earth Fault
- Reverse Power
- Fuel level - low/high (optional)
- Loss of speed signal

## Instruments

- Gen. Voltage (L-L/L-N)
- Gen Frequency
- Engine Speed
- Oil Pressure
- Water Temperature
- Battery Voltage
- Run time
- Engine maintenance due
- Phase sequence
- Pwr. monitoring (kWh / kVAh / kVA<sub>r</sub>h)
- Power (kW/kVA/kVA<sub>r</sub>)
- Power factor
- Gen. Current (L1-L2-L3)
- Earth current

## Standard Features & Accessories

- UL2200 Listing
- Sound Attenuated Steel Enclosure
- Canopy DC lights
- Heavy Duty Steel Base-frame
- Anti-vibration pads
- Residential Grade Silencer Inside Enclosure
- Flex Fuel Lines
- Oil Drain Valve & Extension
- Emergency Stop Switch
- Battery, Battery Rack & Cables
- Battery Charger (2.5 Amp)
- Main Line CB (80% rated)
- Jacket Water Heater (4000W x 2)
- Operations Manual
- 2 Years / 2000hours Limited Warranty

## Optional Accessories

- Upsized Alternator
- Alternator Anti-condensation Heater
- Manual Speed Adjust
- Sub Base Fuel Tank (UL142 / UL2085)
- Low Fuel & Fuel Leak Alarms
- Fuel Level Monitoring on Controller & High Fuel Alarm
- Spring Type Anti-vibration pads
- Critical Grade Silencer
- Fuel Line Check Valve
- Oil Temperature Gauge
- Remote Emergency Stop Switch
- Battery Restraint
- Battery Charger 10/20Amp per NFPA110
- Main Line CB (100% rated)
- Main Line CB Shunt Trip
- Remote Serial Display Panel
- Remote Annunciation Panel (8/16/24 lights)
- 5 Years / 2000hours Limited Warranty

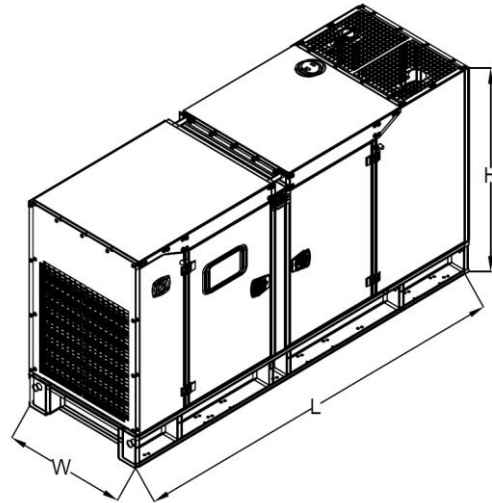
### Dimensions & Weight & Sound Level

#### Gen-set Without Fuel

	Open Type	Enclosed Type	
		Level 1	Level 2
L (in.)	208	260	260
W (in.)	89	89	89
H (in.)	82.5	101	129
Weight (lb)	18500	21000	23000
Sound Level (dBA@23ft)		80	77

#### Fuel Tank – UL142

	24h(1800gal)	48h(3600gal)	72h(4850gal)
L (in.)	285	370	486
W (in.)	89	89	89
H (in.)	25	36	36
Weight (lb)	5600	8600	10950



\*Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice.



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