



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.

Model Name APD-ULM800 Engine Make Mitsubishi Engine Model S12A2-Y2PTAW-2 Alternator Make Stamford Control Panel Make & Model DSE 7320 Frequency & Speed 60Hz, 1800rpm Enclosure Make & Model AKSA AUL 81/82

Genset Rating

Engine	Alternator	Voltage	Standby Power	Power Factor	Standby Current
	S6L1D-C (Wnd - 311)	480 / 277V	800kW	0.8	1203A
S12A2-	HCI634H (Wnd-312)	240/120V	800kW	0.8	2406A
Y2PTAW-2	HCI634H (Wnd-311)	208 / 120V	800kW	0.8	2776A
	HCI634G (Wnd-17)	600 / 347V	800kW	0.8	963A

*EPA – Certified for Emergency Stationary Applications

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

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 ISO14001:2015 standards.

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.

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















Engine Data		Electric System					
Manufacturer	Mitsubishi	Battery Charge Alternator	24V / 25Ah				
Model	S12A2-Y2PTAW-2	Starting Motor Capacity	6 kW x 2				
Displacement & Cylinders	33.93 L 12 Cylinders	Battery Qty, Rating, CCA	4 x 200Ah, 1150CCA				
Engine Speed	1800rpm						
Engine Standby Power wo/Fan	900 kW	Cooling System					
Engine Prime Power wo/Fan	820 kW	Radiator Cooling System Type	Closed Circuit				
Aspiration	Turbo-charged, InterCooler	Radiator Ambient Temp	> 50 °C				
Compression Ratio	15.3 : 1	Coolant Capacity, Engine Only	26.4 gal				
Bore / Stroke	150 mm / 160 mm	(Jacket & Air Cooler) Max Coolant Temp at Engine	208 °F				
Break Mean Effective Pressure	256 psi	Outlet Thermostet Start Fully Open					
Mean Piston Speed	9.6 m/s	Thermostat, Start – Fully Open	149–185 °F				
Allowable Fan Loss Power	38 kW	Exhaust System					
Max Regenerative Power Absorption Capacity wo Fan	$93 \mathrm{kW}$ $\pm 0.25 \%$	Exhaust Outlet Size	202 mm				
Steady State Speed Stability		Max Allowable Back Pressure	600 mmH2O				
Max Over Speed Capacity	2400 rpm	Exhaust Gas Flow	232 m ³ /min				
Wet Weight – Engine Only	7938 lb	Extidust Gas Flow	2.52 III / IIIIII				
Fuel System		Air Intake System					
Fuel Injector	Bosch P Type x 2	Intake Air Flow	88 m³/min				
Max Suction of Feed Pump	75 mmHg	Max Intake Air Restriction (Clean Element)	400 mmH2O				
Max Static Head of Return & Leak Pipe	150 mmHg	Air Filter Type	Dry Paper Element				
Fuel Consumption		Lubrication System					
Standby Power (110%)	67.4 gal/h	Total System Capacity	31.7 gal				
Prime Power (100%)	58.4 gal/h	Sump Capacity Max / Min	26.4 gal / 21.1 gal				
Prime Power (75%)	41.7 gal/h	Max Oil Temp	230 °F				
Prime Power (50%)	28.5 gal/h	Oil Pressure at Rated Speed	57 - 86 psi				
Prime Power (25%)	16.6 gal/h						

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





Alternator Data	Controller Data

Manufacturer Stamford Manufacturer DSE

Standards BS EN 60034 Model 7320

Control System PMG Type Auto Mains Failure Control

A.V.R. MX321

Voltage Regulation $\pm~0.5~\%$

Insulation System Class H

Protection IP23

Rated Power Factor 0.8

Stator Winding Double Layer Concentric

Winding Pitch Two Thirds

Winding Leads 12

Telephone Interference $$THF < 2\ \%$$

Waveform Distortion No Load < 1.5 %

Maximum Over speed 2250 rev/min

Battery Charger & Electrical System **D**

ComAp

InteliCharger

85V ~ 264V AC

27.2V Float / 2.5A pk

Controller Features & Benefits

Microprocessor controlled

License free PC Software

IP65 rating offers increased resistance to water ingress

Modules can be integrated to building management systems

Real time clock provides accurate event log

Four line back-lit LCD text display

Five key menu navigation

Front panel editing with PIN protection

Support up to three remote display modules

Configurable timers and alarms

Multiple date and timer scheduler

Integral PLC editor

'Protections disabled' feature

kW & kVAr protection

Reverse power (kW & kVAr) protection

Jacket Water Heater Data

Output Voltage / Current

Manufacturer

Input Voltage

Model

Manufacturer Hotstart

Model CKM1060260-000

Input Voltage 240V

Power 6000W

Power monitoring (kWh, kVAr, kVAh, kVArh)

Load switching (load shedding and dummy load outputs)

Unbalanced load protection

Independent Earth Fault trip

Fully configurable via DSE Configuration Suite PC Software

SCADA monitoring via DSE Configuration Suite PC Software

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Enclosure Features

- ✓ Heavy Duty Steel / Aluminum Structure
- ✓ E-Stop on Enclosure
- ✓ Control Panel Eliminated from Engine Vibrations
- ✓ Standard Sound Attenuation Foam
- ✓ Plastic Covered Corrosion Resistant Locks & Hinges

Enclosure Features

- ✓ Internally Mounted Exhaust System with Rain Cap
- Coolant Fill Cap
- Removable Base Frame Lifting Hooks
- ✓ Oil & Coolant Drain Ports
- ✓ Easy Access for Maintenance

Open Skid Gen-Set Dimensions

Length 197 in

Width 89 in

Height 83.2 in

Dry Weight 17800 lb

Enclosed Gen-Set Dimensions - Level 1

Length 260.4 in

Width 89 in

Height 101.2 in

Dry Weight 23490 lb

Sound Pressure @ 7 meters 82 dB(A)

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Enclosed Gen-Set Dimensions – Level 2

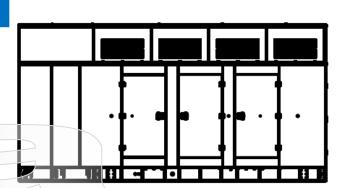
Length 260.4 in

Width 89 in

Height 132.9 in

Dry Weight TBA

Sound Pressure @ 7 meters 79 dB(A) (Calculated Value)



Fuel Tank - UL142 Listed Base Design

 Size
 24hr (1800gal)
 48hr (3600gal)
 72hr (4850gal)

 Dimensions (L/W/H) (in)
 285 / 89 / 25
 370 / 89 / 36
 486 / 89 / 36

Weight (lb) 5600 8600 11000

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Standard Features & Accessories **Optional Accessories** ✓ UL2200 Certification ☐ Main Line CB (3 / 4 Poles – 80% / 100% rated) Heavy Duty Steel Base Frame Upsize Alternator PMG w/MX321 AVR ■ Digital AVR **Engine Jacket Water Heater** ■ Anti-condensation Heater **Battery and Battery Rack** ☐ Sub Base Fuel Tank (UL142 / UL2085) **Battery Charger** □ Fuel Level Display & Alarm on Controller Anti Vibration Pads between Engine/Alternator & Base Frame ☐ Low / High Fuel Alarms Critical Grade Silencer Inside Enclosure ■ Fuel Water Separator Filter Residential Grade Silencer Set for Open Skid Sets Auto Fuel Fill Control System Exhaust outlet rain cap and radiator fill cap □ Oil Temperature Display on Controller Sound Absorb Foam Material for Enclosure ■ Manual Speed Adjust Rheostat **Emergency Stop Buton** ■ Manual Voltage Adjust Rheostat Oil Drain Valve Remote Annunciator Panel Coolant Drain Valve ☐ Remote Control & Monitoring Panel Jacket Water Heater Isolation Valves Advanced SMS Messaging Flex Fuel Lines Control Panel Heater Air Filter Restriction Gauge ■ Battery Disconnect Switch **Engine Manifold Cover** ■ Battery Heater **Turbocharger Cover** ☐ Battery Charger 10/20 Amp **Protection Covers for Rotating Parts** ☐ Shunt Trip / Aux Contacts **Exhaust Insulation Cover** Spring Anti-vibration Isolators **Enclosure DC Light**

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Automatic Transfer Panel (ATS)

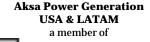
☐ 5 Years / 2000 hours Limited Comprehensive Warranty

Aksa Power Generation USA

Operations Manual

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24 Months / 2000 hours Limited Standby Warranty



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