







# DIESEL GENERATOR DATA SHEET

Power By Kubota

Model: AKU21

# Kubota

# Output Ratings

Generator set	Voltage	Hz	Phase	P.F.	Prime	Power	Standby	y Power
model	(V)				KVA	KW	KVA	KW
AKU21	230/400	60	3	0.8	19	15	21	17

<sup>•220/380</sup>V, 240/415V, 254/440V is avaliable

#### Dimension & weight

Generator set model	Туре	L*W*H (mm)	Weight (kg)
AKIT21	Open	1860*730*1350	641
AKU21	Silent	2250*1000*1550	1070

### Other datas

Circuit Breaker capacity (A)	63
Battery Brand	Varta
Base Fuel Tank Capacity (L)	57

#### **Notes:**

- Standby power: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046.
- Prime power: Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. In accordance with ISO8528, ISO3046.
- •Standard reference conditions 25°C (77°F) Air Inlet Temp, 100m(328 ft) A.S.L. 30% relative humidity.

#### Standard Features

<ul><li>Engine</li></ul>	includ	e one	set	<u>filters</u>	

- Brushless Alternator with AVR
- •Radiator with engine driven fan
- •Auto control system with LCD show
- •3P circuit breaker
- Battery charger and Start battery
- •Industrial silencer
- Anti-vibration pads
- •8hrs bottom fuel tank≤650KVA
- •Standard tools kits
- •User manual & Wiring diagrams
- Standard tools kits

#### **Ontions**

- •Silent canopy (powder coated)
- •ATS
- •Remote Control panel
- •Synchronization system
- •Mobile trailer
- •Engine heater (water/oil)
- •Fuel and water seperator
- •Alternator space heater
- •PMG
- •ABB or 4P circuit breaker
- •Exernal fuel tank
- •Double wall base fuel tank
- •Residential exhaust silencer

### Warranty

- •The standard warranty period: One year after ex-work or 1000 operation hours whichever come first shall apply.
- •Consumable parts(air filter, fuel filter, lube oil filter), All failures and damages due to the mal-operation, neglect of maintenance and operation not according to the operation manual, are out of the scope of warranty.



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

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# Engine

#### **GENERAL ENGINE DATA**

Engine manufacturer	Kubota Engine Co., Ltd.
Engine brand	Kubota
Engine model	D1730
Brake Horse Power ( kW/rpm)	
Stand-by Power (PS/rpm)	18.1/1800 (24.6/1800)
Continuous Power (PS/rpm)	15.0 /1800 (20.4/1800)
No. of Cylinder	3
Aspiration	Naturally Aspirated
Bore * Stroke (mm)	92.4
Displacment (litre)	1.647
Compression Ratio	23.0

### **EXHAUST SYSTEM**

Maximum Back Pressure (kPa)	7.1

## AIR INDUCTION SYSTEM

Maximum Intake Air Restriction (kPa)	2.0
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### **LUBRICATION SYSTEM**

Lubricating System	Forced Lubricating by Trochoid Pump
Lubrication Oil	Class CF lubricating oil as per API classification is recommended
Lub.Oil Capacity	7.6

#### **COOLING SYSTEM**

Cooling System	Pressurized Radiator, Forced Circulation with water pump

## Alternator

Alternator manufacturer	Cummins Generator Technologies(China) Co. Ltd
Alternator brand	Stamford
Alternator model	PI 144D
Control system	SELF EXCITED
A.V.R.	Included
Voltage regulation	±1.0%
Insulation system	Class H
Protection	IP23
Rated power factor	0.8
Winding pitch	Two thirds
Winding leads	12
Frequency (Hz)	60
Voltage (V)	220
Phase	3
Output ratings (kVA/kW)	
Cont.H-40°C	23.5/18
Standby-27°C	25.9/20.7
THF	<2%
TIF	<50
Max. overspeed (Rev/Min)	2250
Bearing	Single

# **Control System**

Ai Power adopts ComAp AMF9 or Deepsea DSE6120 as the standard controller for single gen-set applications.. AMF25 or DSE7320 for option.



ComAP AMF9



Deepsea DSE6120

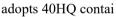
#### **Protection function:**

- •Low oil Pressure
- •High water temperature
- •High voltage and low voltage
- •Over current
- •Over speed
- •Emergency stop
- •Low fuel alarm and shutdown
- •Fail to start

- •3 phase AMF function
- •3 phase generator protections over/under frequency, over/under voltage, over current
- •True RMS voltage measurement
- •True RMS current measurement
- •Event and performance log Gen-set ext alarm, Engine hours history, ECU Text alarm, Test Run scheduler
- •Power Measurements
- •User interface
- •Inputs and outputs
  Configurable analogue/digital, binary
- •Direct communication with EFI engines
- •Engine Protections
  Oil pressure, Coolant temperature, Fuel level
- •Breaker control via fasica buttons
- •Fuel Pump control
- •Optional Active Calls(SMS alarm/event)
- •Miscellaneous features
- Communication interface
   USB plug-in, Optional RS232, RS485, GSM
- •Multiple display languages
- •Start on low battery
- •Real-time clock
- •Zero power mode
- •LCD and LED alarm indication
- •Configuration Suite PC Software.
- •IP65 protection class
- •Remote monitoring

### **Open and Silent Generator**

Ai Power silent generator is widely used in residential area which require quiet environment, its reasonable and elegant design not only reduce the noise to applicable to the environment protection, but also a good view on the road. Our 10kva to 650kva generator adopts normal silent canopy, from 650kva to 1500kva adopts 20ft container canopy, the higher power





# **Open Generator Standard Supply**

#### The Open Type Generator Includes:

- 1. Automatic control panel.
- 2. 3 phases or single phase brushless alternator.
- 3. anti-vibration pad.
- 4. different brand engine.
- 5. water cooled radiator.
- 6. battery protection switch.
- 7. sealed lead acid free maintenance battery.
- 8. trickle battery charger.
- 9. 3P Chinese brand Circuit breaker.
- 10. Ex**Kiasos**ile**hi-Povle**o-Teahhfllagge.Co., Ltd.



## **Silent Generator Standard Supply**

### **Silent Generator Standard Supply:**

- 1. AMF automatic control system
- 2. Fresh air inlet cooling system
- 3. Emerency stop
- 4. 3P Chinese brand Cricuit Breaker
- 5. Cable output placement
- 6. 8hrs strong base fuel tank
- 7. stainless steel hings
- 8. maintenance door



## **Silent Canopy Features**

#### **Silent Canopy Features:**

- 1. more than 2mm thick steel canopy.
- 2. High quality paint and strict powder paint processing.
- 3. large-scale impedance combined type silencer.
- 4. Stainless steel door locks and hinges.
- 5. High quality fireproof, soundproof and insulation materials.
- 6. Clear monitoring control panel and outer emergency stop.
- 7. Lifting ear is mounted in the base frame for easy pull.
- 8. Fuel and lub oil drainout is all connected to the canopy.
- 9. Fuel refill opening is on the outer canopy.

