# APD15MK



POWER YOUR FUTURE

11.4kVA / 11.4 kW POWERED by KUBOTA

# DIESEL GENERATING SET 230 /115V - 50 Hz – 1Ph

MODEL			APD15MK
Power Pf. 1.0	Standby	kVA	11.4
		kW	11.4
	Prime	kVA	9.7
		kW	9.7

Standby: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046. Prime: Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. In accordance with ISO 8528,ISO 3046.

- ✓ High quality, reliable and complete power unit
- ✓ Compact design
- ✓ Easy start and maintenance possibility
- Every generating set is subject to a comprehensive test program which includes full load testing, checking and provision of all control and safety shut down functions testing
- ✓ Fully engineered with a wide range of options and accessories: Canopy, sound proof canopy and on-road trailer



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

## ENGINE

KUBOTA					
Model		D1703-E2BG			
Engine Power Output	kWm	15.1			
at rated rpm	HP	20.2			
Aspiration and Cooling		Natural			
Total Displacement	Litre	1.647			
No. of Cylinders and Build		3 - Inline			
Engine Speed	rpm	1500			
Bore and Stroke	mmxmm	87x92.4			
Compression Ratio		23:1			
Governor		Mechanical			
Fuel Consumption at full load	L/hr	3.58			
Fuel Tank Capacity	Litre	80			
Oil Capacity	Litre	7.6			
Coolant Capacity	Litre	10.2			
Radiator Cooling Air	m³/min	53			
Air Intake – Engine	m³/min	1.08			
Exhaust Gas Flow	m³/min	2.91			

✓ Heavy duty Kubota diesel engine

✓ Four stroke, water cooled, natural

- ✓ Direct injection fuel system
- ✓ Mechanical Governor system
- ✓ 12/24 V D.C. starter and charge alternator
- ✓ Replaceable fuel filter, oil filter and dry element air filter
- ✓ Cooling radiator and fan
- Starter battery (with lead acid) including Rack and Cables  $\checkmark$
- Flexible fuel connection hoses and manual oil sump drain valve  $\checkmark$
- ✓ Industrial capacity exhaust silencer and steel bellows
- ✓ Jacket water heater(at automatic models)
- ✓ Operation manuals and circuit diagram documents

# **ALTERNATOR**

Design	Brushless single bearing, revolving field
Stator	2/3 pitch
Rotor	Single bearing, flexible disc
Insulation System	Class H
Standard Temperature Rise	125 - 163°C Continuous
Exciter Type	Self Excited
Phase Rotation	B (V), C (W)
Alternator Cooling	Direct drive centrifugal blower fan
AC Waveform Total Harmonic Distortion	No load < 1.5%. Non distorting balanced linear load < 5%
Telephone Influence Factor (TIF)	<50 per NEMA MG1-22.43
Telephone Harmonic Factor (THF)	<2%

✓ Brushless, single bearing system, flexible disc, 4 poles

✓ Insulation class H

✓ Standard degree of protection IP23

✓ Self-exciting and self-regulating

- ✓ Impregnation with tropicalised epoxy varnish

Solid state Automatic Voltage Regulator
Stator winding with 2/3 pitch for improved harmonics

### **CONTROL SYSTEM**

Control supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows:

Generator kVA

Generator kW

Generator Cos (o)

#### 1. Auto Mains Failure Control Panel

- Panel equipments:
- ✓ Control with AMF module
- ✓ Static battery charger
- ✓ Emergency stop push button

#### a) Generating set control module DSE6120 features:

- ✓ The module is used to monitor main supply and starts and stops of a standby generating set
- ✓ Micro-processor based design
- ✓ Automatic control of main and generator contactors
- Monitors engine performance and AC power output LED ~
- alarm indication
- ✓ Front panel configuration of timers and alarm trip points
- ✓ 4 configurable analogue/digital inputs, 8 configurable digital inputs
- ✓ 6 configurable DC outputs
- ✓ Easy push button control

STOP/RESET - MANUAL - AUTO - TEST - START

#### b) Metering via LCD display:

- Generator Volts (L-L / L-N)
- √ Engine oil pressure (PSI-Bar)
- ✓ Generator Ampere (L1,L2,L3) ✓ Engine temperature (° C&° F)
- 1
- Generator Frequency (Hz) 1
- Plant battery volts Engine hours run
- ~
- Mains Volts (Ph-Ph/Ph-N)



**DSE 6120** 

#### c) Alarms:

- Over and Under Speed
- 1 Low and High Battery Volt.
- Start and Stop Failure
- Charge fail
- Over Current
- Under / Over Generator Voltage
- Low Oil Pressure ✓
- ✓ Emergency stop
- ✓ High engine temperature

#### d) LED indications

- ✓ Mains available
- Generator available
- 1 Mains on load
- ✓ Generator on load

#### 2. Power Outlet Terminal Board Mounted on the Gen-set Base Frame

### **OPTIONAL EQUIPMENTS**

#### **Diesel Engine**

✓Oil heater

#### Alternator

- 3/4 Pole Output Circuit Breaker
- ✓ Anti-condensation Heater

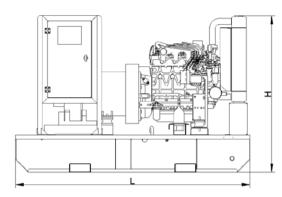
#### Panel

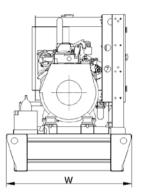
- ✓ Charge ammeter
- ✓ Transfer Switch 3Pole
- ✓ Transfer Switch 4 Pole
- ✓ Earth Fault ,single set

#### Accessories

- ✓ Bulk fuel tank
- ✓ Automatic filling system
- ✓ Fuel-water separator filter
- ✓ Low fuel level alarm
- ✓ Residential silencer
- ✓ Enclosure or sound proof canopy
- ✓ Trailer
- ✓ Manual oil drain pump
- ✓ Tool kit for maintenance

## **CHASSIS**





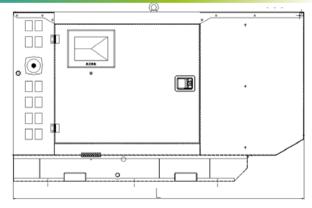
 $\checkmark$  The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame

- ✓ Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- ✓ Base frame design incorporates an integral fuel tank (Up to 750 kVA)
- ✓ The generating set can be lifted or carefully pushed / pulled by the base frame
- ✓ Dial type fuel gauge and drain plug on the fuel tank
- ✓ Forklift pockets within base frame (up to 500kVA)

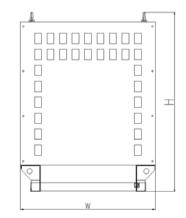
# DIMENSIONS

OPEN TYPE					
DIMENSIONS (LxWxH)	mm	1691*970*1068			
DRY WEIGHT	kg	350			
SOUN	D ATTENU	ATED TYPE			
SOUN DIMENSIONS (LxWxH)	D ATTENU	ATED TYPE 2112*1029*1300			

### CANOPY



- ✓ All canopy parts are designed with modular principles
- ✓ Without welding assembly
- ✓ Doors on each side
- All metal canopy parts are painted by electrostatic polyester powder paint



- Exhaust silencer is protected against environment influences
- ✓ Thermally insulated engine exhaust system
- ✓ Emergency stop push button is installed outside of the canopy
- ✓ Easy lifting and moving
- Easy maintenance and operation

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