# APD2500M





Sa POWER

2500 kVA / 2000 kW **POWERED by MITSUBISHI** 

# DIESEL GENERATING SET 400/230 V - 50 Hz - 3 phase

	MODEL		APD2500M
Power Pf. 0.8	Standby	kVA	2500
		kW	2000
	Prime	kVA	2250
		kW	1800

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

MITSUBISHI						
Model	S16R2-PTAW					
Engine Power Output	kWm	2167				
at rated rpm	HP	2905				
Aspiration and Cooling		Turbocharged & Aircooler(Fresh Water)				
Total Displacement	Litre	79.90				
No. of Cylinders and Build		16V				
Engine Speed	Rpm	1500				
Bore and Stroke	mmxmm	170x220				
Compression Ratio		14.0:1				
Governor		Electronic				
Fuel Consumption at full load	L/hr	478				
Fuel Tank Capacity	Litre	N/A				
Oil Capacity	Litre	290				
Coolant Capacity	Litre	694				
Radiator Cooling Air	m³/min	2640				
Air Intake – Engine	m³/min	188				
Exhaust Gas Flow	m³/min	498				

✓ Heavy duty Mitsubishi diesel engine

✓ Four stroke, water cooled, turbocharged & aircooler

✓ Direct injection fuel system

✓ Electronic 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  $\checkmark$
- Starter battery (with lead acid) including Rack and Cables  $\checkmark$
- Flexible fuel connection hoses and manual oil sump drain valve Industrial capacity exhaust silencer and steel bellows
- $\checkmark$
- Jacket water heater(at automatic models)  $\checkmark$
- ✓ 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	A (U), 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 IP21 (\*IP22/IP23 is avail.)

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

### 1. Auto Mains Failure Control Panel

Panel equipments:

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

### a) Generating set control module DSE 7320 features:

- The module is used to monitor a mains supply and starts and stops a standby generating set
- ✓ Micro-processor based design
- ✓ Automatic control of mains and generator contactors
- ✓ Monitors engine performance and AC power output
- ✓ LED alarm indication
- ✓ Front panel configuration of timers and alarm trip points
- ✓ Easy push button control STOP/RESET - MANUAL -TEST- AUTO - MUTE ALARM - START

### b) Metering via LED display:

- Generator Volts (L-L / L-N)
- ✓ Engine oil pressure (PSI-Bar)
- ✓ Generator Ampere (L1,L2,L3)
- ✓ Engine temperature (° C&° F) ✓ Generator Frequency (Hz)
- ✓ Plant battery volts ✓ Engine hours run
- ✓ Mains Volts (Ph-Ph/Ph-N)
- ✓ Generator kVA, kWh
- ✓ Generator kW as % of rated kW setting
- ✓ Generator Cos ( $\sigma$ )



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DSE 7320

#### c) Alarms:

- ✓ Over and Under Speed
- 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
- ✓ kW overload
- ✓ Unbalanced load
- ✓ Independent earth fault trip

#### d) LED indications

- Four configurable LED's like:
- ✓ Mains available
- ✓ Generator available
- ✓ Mains on load
- ✓ Generator on load

### 2. Power Outlet Terminal Board Mounted on the Genset Base Frame

## **OPTIONAL EQUIPMENTS**

#### **Diesel Engine**

✓ Oil heater

#### Alternator

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

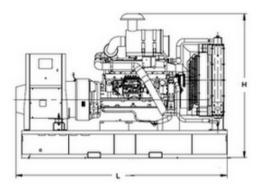
### Panel

- ✓ Charge ammeter
- Transfer Switch 3 Pole  $\checkmark$
- 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**

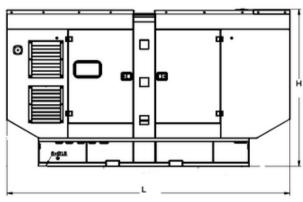


- $\checkmark$  The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- ✓ Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- ✓ Base frame design incorporates an integral fuel tank (Up to 750 kVA)
  ✓ The generating set can be lifted 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)

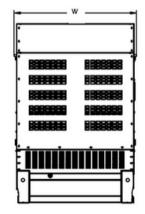
## DIMENSIONS

OPEN TYPE							
DIMENSIONS (LxWxH)	mm	6146x2380x3392					
DRY WEIGHT	kg	14700					
SOUND ATTENUATED TYPE							
		N1/A					
DIMENSIONS (LxWxH)	mm	N/A					

## 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

**Aksa Power Generation** Evren Mah.Gulbahar Caddesi 1.Sokak Gunesli-Istanbul-TURKEY Tel:+90 212 478 66 66 Fax:+90 212 657 55 16 E-mail: aksa@aksapowergen.com www.aksapowergen.com Aksa Power Generation is a member of a kazanci holding www.aksa.com.tr