

# DIESEL POWERED GENERATING SETS

1915  
2500 kVA

1532  
2000 kW



Generating Set Model	Power Pf.0,8 400 / 230 V - 50 Hz	
	Standby kVA	Prime kVA
APD 1915M	1915	1750
APD 2100M	2100	1875
APD 2250M	2250	2000
APD 2500M	2500	2250

**Standby:** Standby duty, operation under variable load without overload.

**Prime:** Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. Contact us for the other running periods.

## STANDARD GENSET SPECIFICATIONS

### ENGINE

- Heavy duty Mitsubishi diesel engine
- Four stroke, water cooled, turbo charged
- Direct injection fuel system
- Electronic governor control system
- 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
- Flexible fuel connection hoses and manual oil sump drain pump
- Industrial capacity exhaust silencer and steel bellows
- Jacket water heater
- Operation manuals and circuit diagram documents

### ALTERNATOR

- Brushless, single bearing system, 4 poles flexible disc
- Insulation class H
- Standard degree of protection IP21
- Self-exciting and self-regulating
- Impregnation with tropicalised epoxy varnish
- Solid state Automatic Voltage Regulator
- Stator winding with 2/3 pitch for improved harmonics

### CHASSIS

- Steel chassis and antivibration pads.
- The generating set can be lifted by the base frame
- Lifting eyes allow is the transportation by a crane
- Seperate fuel tank

### SOUND ATTENUATED ENCLOSURE

- All canopy parts are designed with modular principles
- Without welding assembly (except AK99)
- Doors on each side
- All metal canopy parts are painted by electrostatic polyester powder paint
- Aluminium internal floor (except AK99)
- Emergency stop push button is installed outside of canopy
- Clour black/yellow (RAL 90005/RAL 1003)
- The enclosure have four lifting points
- Easy maintenance and operation
- Model AK99 ve AK100 enclosure is dropover style

### QUALITY STANDARDS

- The equipment meets the following standards: VDE 0530, BS 5000, IEC 34-1, ISO 3046
- The generating sets are manufactured by a full accredited ISO 9001

### CONTROL SYSTEM

#### Auto. Mains Failure control panel - P732

Control, supervision and protection panel is mounted on the gen-set base frame. The control panel is equipped as follows:

#### Equipments:

- Control with DSE, model 7320 module
- Static battery charger
- Emergency stop push button.

#### a) Control Module DSE 7320 Features

- The module monitors a mains supply and controls a standby generating set with automatic transfer switch
- Module indicates operational status and fault conditions by means of its LCD display
- Microprocessor controlled
- Front panel programming and also via PC software
- 132 x 64 pixel LCD display makes information easy to read
- Front panel programming and also via PC software
- Soft touch membrane keypad and five key menu navigation
- Remote communication via RS 232, RS 485 and Ethernet and SMS messaging
- Event logging (50) showing date and time
- Multiple date and time engine exercise mode and maintenance scheduler

#### Controls

Stop - Manual - Auto - Test - Start - Mute/Lamp test - Transfer to generator - Transfer to mains - Menu navigations buttons

#### b) Instruments via LCD display

##### Engine

- Oil pressure (PSI & Bar)
- Temperature (°C & °F)
- Speed RPM
- Run time
- Battery volts
- Maintenance due

##### Mains

- Volts (L-L / L-N)
- Frequency (Hz)

#### c) Protections

##### Warning

- Charge failure
- Battery under voltage
- Fail to stop
- Low fuel level (opt.)
- kW over load
- Negative phase sequence
- Loss of speed signal

##### Pre-alarms

- Low oil pressure
- High engine temperature
- Low engine temperature
- Over/Under speed
- Under/over generator frequency
- Under/over generator voltage
- ECU warning

#### d) Led Indication

- Mains available
- Mains on load
- Generator available
- Generator on load

##### Generator

- Volts (L-L / L-N)
- Currents (L1, L2, L3)
- Frequency (Hz)
- kW
- Cos φ
- kVA, kVAR,
- kWh, kVAh, kVARh
- Phase sequence

##### Shut Downs

- Fail to start
- Emergency stop
- Low oil pressure
- High engine temperature
- Low coolant level
- Over/under speed
- Under/over generator frequency
- Under/over generator voltage
- Oil pressure sensor open
- Phase rotation
- Electrical trip**
- Earth fault
- kW over load
- Generator over current
- Negative phase sequence



**DSE 7320**

## DIESEL GENERATING SETS 400 / 230 V - 50Hz

**GROUP**

Model		APD 1915M	APD 2100M	APD 2250M	APD 2500M	
Power	Standby	kVA	1915	2100	2250	2500
		kW	1532	1680	1800	2000
Pf. 0,8	Prime	kVA	1750	1875	2000	2250
		kW	1400	1500	1600	1800
Engine Make		Mitsubishi				
Model		S16R-PTA	S16R-PTA2	S16R-PTAA2	S16R2-PTAW	
Gross Engine Power Output (at rated rpm)	kW	1620	1790	1939	2167	
	HP	2172	2399	2599	2905	
Aspiration and Cooling		Turbocharged & AC		Turbocharged & IC	Turbocharged Two Loop, Two Pump	
Total Displacement	Liter	65,37			79,9	
No. of Cylinders and Build		16-V				
Engine Rated Speed		1500 rpm				
Bore ve Stroke		170 x 180			170 x 220	
Compression Ratio		14:1	13,5 : 1		14 : 1	
Governor		Electronic				
Fuel Consumption at prime load	L/h	347,6	398,7	403,8	478	
Fuel Tank Capacity	Liter	2000				
Oil Capacity	Liter	230		290		
Coolant Capacity	Liter	350	445	413	442	
Radiator Cooling Air	m <sup>3</sup> /min	1950	2040	2500	3000	
Air Intake - Engine	m <sup>3</sup> /min	128	143	171	188	

IC: Inter Cooler

AC: After Cooler

**DIESEL ENGINE**

### Open Type

Dimensions (Length x Widht x Height)	m	5,2 x 2,3 x 2,6	5,2 x 2,25 x 2,96	5,7 x 2,2 x 3,4	6,2 x 2,4 x 3,4
Dry Weight	kg	13850	13100	14200	14700

### Sound Attenuated Type

Model	AK99	AK100			
Dimensions (Length x Widht x Height)	m	9 x 2,8 x 3,3 + 1,4	9,63 x 2,8 x 3,3 + 1,4		
Dry Weight	kg	17700	18350	19000	21420

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

### Optional Equipments

#### Diesel Engine

- Remote Radiator APD 2250 Except
- Oil Heater

#### Alternator

- 3 or 4 pole output circuit breaker
- Anti-condensation heater

#### Panel

- Charge ammeter
- Transfer switch 3 pole
- Transfer switch 4 pole
- Earth fault. single set
- Motor operated circuit braker

#### Accessories

- Bulk fuel tank
- Automatic filling system
- Fuel - water separator filter
- Low fuel level alarm
- Residential silencer
- Enclosure or soundproof canopy
- Tool kit for maintenance



Aksa makes its sound attenuated generator sets sound pressure level tests in accordance with Directive 2000/14/EC.

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