

DIESEL POWERED GENERATING SETS

**825
1650** kVA

**660
1320** kW



Generating Set Model	Power P.F.0,8	
	400 / 230 V - 50 Hz	
	Standby kVA	Prime kVA
APD 825M	825	750
APD 880M	880	800
APD 1100M	1100	1030
APD 1425M	1425	1290
APD 1650M	1650	1500

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 (at automatic models)
- 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
- Separate fuel tank (except APD 825M, APD 880M and APD 1100M)

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 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
- 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 825M	APD 880M	APD 1100M	APD 1425M	APD 1650M	
Power	Standby	kVA	825	880	1100	1425	1650
		kW	660	704	880	1140	1320
Pf. 0,8	Prime	kVA	750	800	1030	1290	1500
		kW	600	640	824	1032	1200
Engine Make		Mitsubishi					
Model		S6R2-PTAA	S12A2-PTA	S12H-PTA	S12R-PTA	S12R-PTAA2	
Gross Engine Power Output (at rated rpm)	kW	730	746	1020	1220	1441	
	HP	978	1000	1367	1635	1932	
Aspiration and Cooling		Turbocharged & IC	Turbocharged & AC			Turbocharged & IC	
Total Displacement	Liter	29,96	33,93	37,11	49	49	
No. of Cylinders and Build		6L	12-V				
Engine Rated Speed		rpm 1500					
Bore ve Stroke		mmxmm 170 x 220	150 x 160	150 x 175	170 X 180		
Compression Ratio		14:1	14,5:1	14 : 1	15:1	13,5 : 1	
Governor		Electronic					
Fuel Consumption at Prime Load	L/h	156,7	166	216,1	260,6	308	
Fuel Tank Capacity	Liter	1300	850	1000	2000		
Oil Capacity	Liter	94	120	200	180		
Coolant Capacity	Liter	132	220	244	335	317	
Radiator Cooling Air	m ³ /min	726	1140	1800	1800	1800	
Air Intake - Engine	m ³ /min	60	64	83	98	129	

IC: Inter Cooler

AC: After Cooler

Open Type

Model	APD 825M	APD 880M	APD 1100M	APD 1425M	APD 1650M
Dimensions (Length x Widht x Height)	m 4,1 x 1,8 x 2,2	4,37 x 1,97 x 2,12	4,4 x 2,1 x 2,2	4,4 x 2,1 x 2,2	5 x 2,2 x 3,1
Dry Weight	kg 6360	6900	8600	9300	11400

Sound Attenuated Type

Model	MS86	AK90	AK 96	AK99	
Dimensions (Length x Widht x Height)	m 5,41 x 1,86 x 2,65	6,5 x 2,2 x 2,35 + 1	7,5 x 2,3 x 2,5 + 1,4	9 x 2,8 x 3,3 + 1,5	
Dry Weight	kg 7680	9840	12250	13580	15450

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 825M and APD 1650M 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



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

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