

MONOPHASE GENERATING SETS

aksa POWER GENERATION

9,6
33 kW



Generating Set Model	Power Pf.1 230 V - 50 Hz	
	Standby kW	Prime kW
APD 12 EM	9,6	8,8
APD 16 MA	11	10
APD 20 MA	16,5	15
AJD 24 M	24	21
AJD 33 M	33	30

Standby: Continuous running at variable load for duration of an emergency.No overload is permitted on these ratings.

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

- Diesel engine
- Four cycle, water cooled
- Direct injection fuel system (Except APD 12 EM)
- Mechanical governor control system
- Electronic governor control system APD 12 EM
- 12 V.D.C.starter and charge alternator
- Replaceable fuel filter, oil filter and dry element air filter
- Cooling radiator and fan
- Flexible fuel connection hoses and sump oil drain valve
- Industrial capacity exhaust silencer and steel bellows
- Starter battery (with lead acid) including Rack and Cables
- Jacket water heater
- Manual for application and installation

ALTERNATOR

- Brushless, single bearing system, 4 poles, flexible disc
- APD 12 EM brushless, 2 poles
- Insulation class H
- Standard degree of protection IP21
- Self-exciting and self-regulating
- Solid state automatic voltage regulator
- Screen protected and drip proof
- Impregnation with tropicalized epoxy varnished
- Stator winding with 2/3 pitch for improved harmonics
- Close voltage regulation
- APD 12 EM voltage regulation via capacitor

CHASSIS

- Steel chassis and antivibration pads
- Base frame design incorporates an integral fuel tank
- 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

CANOPY

- All canopy parts are designed with modular principles
- Without welding assembly
- All metal canopy parts are painted by electrostatic polyester powder paint
- Panel window
- Lockable doors on each side.
- Easy lifting and moving, central lifting
- Thermally insulated engine exhaust system
- Exterior emergency stop push button.
- Easy maintenance and operation

QUALITY STANDARDS

The equipment meets the following standards:
ISO 9001.

CONTROL SYSTEM

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 - P 602

Panel equipments:

- Control with DSE, model 6020 module
- Static battery charger
- Emergency stop push button.

a) DSE 6020 Module Features:

- Automatic control generating set start and stop
- 3 phase generator and mains voltage monitoring
- Transfer between mains and generator power
- Scrolling digital LCD display
- 4-line, 64x132 graphic display with LED backlight
- Front panel configuration of timers and alarm trip points
- Easy push button control

STOP/RESET - MANUAL - AUTO - TEST - START

- LCD display Scroll push-button
- Page button
- Remote start
- Micro processor controled

b) Metering via LCD Display:

- Generator Volt (L-L, L-N)
- Generator Ampere (L1,L2,L3)
- Generator Frequency (Hz)
- Configurable timing
- Event log(5) events
- Engine hours run
- Engine oil pressure (PSI)
- Engine speed RPM
- Engine cooling temperature (°C)
- Plant battery volts
- Mains Volts (L-L, L-N)
- Mains frequency (Hz) protection

c) Protections

Shutdowns

- Under/Over Speed
- Over current (Electrical trip)
- Engine low oil pressure
- High coolant temperature
- Fail to start
- Under/over generator frequency
- Under/over generator voltage
- Emergency stop
- Oil pressure sensor open
- Coolant temperature sensor open

Warning

- Under/Over generator voltage
- Over/under generator frequency
- Over/under speed
- Engine low oil pressure
- High coolant temperature
- Battery high/low voltage
- Charge alternator failure
- Fail to stop

d) LED Indications:

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

*P452 control model is used for APD 12EM genset.



DSE
6020

DIESEL GENERATING SETS 230 V - 50Hz

GROUP

DIESEL ENGINE

Model		APD 12 EM	APD 16 MA	APD 20 MA	AJD 24 M	AJD 33 M
Power	Standby kW	9,6	11	16,5	24	33
Pf. 0,8	Prime kW	8,8	10	15	21	30
Engine Make		Aksa			John Deere	
Model		A2CRX08	A4CRX18	A4CRX24	3029DF129	3029TF129
Gross Engine Power Output (at rated rpm)	kW	13,2	16,5	21	31	42
	HP	18	22	28	41	56
Aspiration and Cooling		Natural				Turbocharged
Total Displacement	Liter	0,794	1,808	2,545	2,9	
No. of Cylinders and Build		2-V Type	4 - Inline	4 - Inline	3 - Inline	
Engine Speed		3000 rpm	1500		1500	
Bore ve Stroke		80 x 79 mmxmm	80 x 90	90 x 100	106 x 110	
Compression Ratio		24:1	18:1	18:1	17,2:1	17,2:1
Governor Type		Electronic	Mechanical		Mechanical	
Fuel Consumption	L / h	4	4,1	5,4	6,8	9,8
Fuel Tank Capacity	Liter	15	32	95	70	100
Total Oil Capacity	Liter	2,3	5	8,5	6	8,5
Coolant Capacity (Engine and radiator)	Liter	6,4	9	18,5	15,5	23
Radiator Cooling Air	m ³ /min	48	120	174	81	92
Air intake - Engine	m ³ /min	1	2	1,542	1,8	3,2
Exhaust Gas Flow	m ³ /min	2,07	5,8	3,9	5,2	7,6

Open Types

Dimensions (Length x Width x Height)	m	-	1,40 x 0,76 x 0,93	1,50 x 0,90 x 1,06	1,49 x 0,90 x 1,22	1,78 x 0,95 x 1,13
Dry Weight	kg.	-	390	640	720	830

Sound Attenuated Types

Canopy Model	AK 01	ANS1A	ASM3	AK 20	AK 30	
Dimensions (Length x Width x Height)	m	1,15 x 0,78 x 1,0	1,67 x 0,82 x 1,13	1,93 x 0,96 x 1,21	2,1 x 0,96 x 1,44	2,47 x 1,01 x 1,46
Dry Weight	kg.	252	520	870	900	1050

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

Optional Equipments

Diesel Engine

- Remote radiator

Alternator

- 3 pole output circuit breaker
- Anti-condensation heater

Panel

- Charge ammeter
- Transfer switch 3 pole
- Transfer switch 4 pole
- Earth fault, single set

Accessories

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



Aksa makes its sound attenuated generator sets sound pressure level tests in accordance with Directive 2000/14/EC validation of the sound level test has been approved by the notified body szutest

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