



INTRODUCTION

Aksa power generation system, providing optimum performance, and reliability, for stationary standby, prime power, and continuous duty applications. All generator sets are factory build, and production tested.

Certificate

TS ISO 8528

CE

SZUTEST

2000/14/EC

General Characteristics

Model Name	APD 165 BD
Frequency (Hz)	50
Fuel Type	Diesel
Engine Made and Model	BAUDOIN - 6M11G4D0
Alternator Made and Model	Aksa - AK 4120
Control Panel Model	DSE 6120
Canopy	ACP 6B

Производитель сохраняет за собой право без предварительного уведомления делать изменения в моделях, технических характеристиках, цветах, оборудовании, аксессуарах и чертежах.


3 Phase, 50 Hz, PF 0.8

VOLTAGE	STANDBY RATING (ESP)		PRIME RATING (PRP)		Standby Amper
	kVA	kW	kVA	kW	
400/231	165	132.00	150	120.00	238.16

STANDBY RATING (ESP) : Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. ESP is in accordance with ISO 8528-1. Overload is not allowed.

PRIME RATING (PRP) : Applicable for supplying power to varying electrical load for unlimited hours. PRP is in accordance with ISO 8528-1. 10 % overload capability is available for a period of 1 hour within 12-hour period of operation.

ENGINE SPECIFICATIONS

Engine		BAUDOUIIN
Engine Model		6M11G4D0
NO. OF CYLINDERS AND BUILD		6 cylinders - in line
BORE AND STROKE	mm	105 X 130
TOTAL DISPLACEMENT	L	6.75
Aspiration		Turbo Charged and Air to Air AfterCooled

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COMPRESSION RATIO		18:1	
RATED SPEED (RPM)	d/dk	1500	
OIL CAPACITY	L	19	
Standby Power (kW/HP)		152/204	
Prime Power		138/185	
Block Heater QTY			
		1	
Block Heater Power (Watt)			
		1500	
Fuel Type			
		Diesel	
Injection Type and System			
		Direct	
Type of Fuel Pump			
		Mechanical	



Governor System			
		Electronic	
Operating Voltage (Vdc)			
		12 Vdc	
Battery and Capacity (Qty/Ah)			
		1x85	
Charge Alternator (A)			
		80	
Cooling Method			
		Water Cooled	
Cooling Fan Air Flow (m3/min)			
		304.5	
Coolant Capacity (engine only / with radiator) (lt)			
		8/20	
Air Filter			
		Dry Type	



Fuel Cons. Prime With %100 Load (lt/hr)			
		32.6	
Fuel Cons. Prime With %75 Load (lt/hr)			
		24.6	
Fuel Cons. Prime With %50 Load (lt/hr)			
		16.7	


ALTERNATOR SPECIFICATIONS

Manufacturer		Aksa
Alternator Made and Model		AK 4120
Frequency (Hz)	Hz	50
Power (kVA)	kVA	150
DESIGN		4 Pole, Brushless
VOLTAGE	V	400
Phase		3



A.V.R.		SX460
Voltage Regulation	(+/-)	1,5%
Insulation System		H
Protection		IP23
Rated Power Factor		0.8
WEIGHT COMP. GENERATOR (Kg)		492
COOLING AIR (m³/min)	m³	30,84

SIZE and WEIGHT

Open Type	DRY WEIGHT (kg.) (kg.)	LENGTH (mm.)	WIDTH (mm.)	HEIGHT (mm.)	TANK CAPACITY (lt.) (Lt.)
	1970	2641	1100	1465	
CANOPY	DRY WEIGHT (kg.) (kg.)	LENGTH (mm.)	WIDTH (mm.)	HEIGHT (mm.)	TANK CAPACITY (lt.) (Lt.)



ACP 6B



2450

3265

1163

1858

271

STANDART SPECIFICATIONS

- Water cooled, Diesel engine
- Radiator with mechanical fan
- Protective grille for rotating and hot parts
- Electric starter and charge alternator
- Starting battery (with lead acid) including rack and cables
- Engine coolant heater
- Base frame design incorporates an integral fuel tank and anti-vibration isolators
- Flexible fuel connection hoses
- Single bearing, class H alternator
- Industrial exhaust silencer and steel bellows supplied separately(for open sets)
- Static battery charger
- Manual for application and installation

OPTIONAL EQUIPMENTS

ENGINE

- Fuel-Water Seperator Filter
- Oil heater

ALTERNATOR

- Anti-Condensation Heater
- Over sized alternator
- PMG excitation + AVR
- Main line circuit breaker

CONTROL SYSTEM

- Automatic synchronising and power control system (multi gen-set Parallel)
- Transition synchronization with mains
- Remote annunciator panel
- Remote relay output
- Alarm output relays
- Remote communication with modem
- Earth fault, single set
- Charge Ammeter

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TRANSFER SWITCH

- Three Pole Contactor
- Four Pole Contactor
- Three or four pole motor operated circuit breaker

OTHER ACCESSORIES

- Main Fuel Tank
- Automatic or manual fuel filling system
- Manual oil drain pump
- Electrical oil drain pump
- Low and high fuel level alarm
- Residential silencer
- Enclosure: weater protective or sound attenuated
- Duct adapter (on radiator)
- Inlet and outlet motorised louvers
- Inlet and outlet acoustic baffles
- Trailer
- Tool kit for maintenance
- Automatic transfer switch

Devices

- DSE, model 6120 Auto Mains Failure control module.
- Battery charger input 198-264 volt, output 27,6 V 5 A (24 V) or 13,8 Volt 5A (12V)
- Emergency stop push button and fuses for control circuits.

Construction and finish

- Components installed in sheet steel enclosure. Phosphate chemical, pre-coating of steel provides corrosion resistant surface. Polyester composite powder topcoat forms high gloss and extremely durable finish. Lockable and hinged panel door provides easy access to components.

Installation

Control panel is mounted on baseframe with steel stand. Located at the right side of the generator set (When you look at the Gen.Set. from Alternator)

GENERATING SET CONTROL UNIT



The DSE 6120 module has been designed to monitor generator frequency, volt, current, engine oil pressure, coolant temperature running hours and battery volts.

Module monitors the mains supply and switch over to the generator when the mains power fails.

The DSE6120 also indicates operational status and fault conditions, Automatically shutting down the Gen.

Set and giving true first up fault condition of Gen. Set failure. The LCD display indicates the fault.

Стандартные функции

- Microprocessor controlled.
- LCD display makes information easy to read.
- Automatically transfers between mains (utility) and generator power.
- Manual programming on front panel.
- User-friendly set-up and button layout.
- Remote start.
- Event logging (50) showing date and time.
- Controls: Stop/Reset, Manual, Auto, Test, Start, buttons. An additional push button next to the LCD display is used to scroll through the modules' metering displays.

Измерительные приборы

ENGINE

- Engine speed.
- Oil pressure.
- Coolant temperature.
- Run time.
- Battery volts.
- Configurable timing.

GENERATOR

- Voltage (L-L, L-N).
- Current (L1-L2-L3).
- Frequency.
- Gen. Set ready.
- Gen. Set enabled.

MAINS

- Mains ready.
- Mains enabled.

Схема защиты

WARNING

- Charge failure.
- Battery Low/High voltage.
- Fail to stop.
- Low /High generator voltage.
- Under /Over generator frequency.

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- Over /Under speed.
- Low oil pressure.
- High coolant temperature.

SHUT DOWNS

- Fail to start.
- Emergency stop.
- Low oil pressure.
- High coolant temperature.
- Over /Under speed.
- Under/over generator frequency.
- Under/over generator voltage.
- Oil pressure sensor open.
- Coolant temperature sensor open.

ELECTRICAL TRIP

- Generator over current.

Опционные особенности

- Flexible sensor can be controlled with temperature, pressure, percentage (warning/shutdown/electrical trip)
- Local setting parameters and monitoring from PC to control module with USB connection (max 6 mt).

Стандарты

- Electrical Safety / EMC compatibility
- BS EN 60950 Electrical business equipment.
- BS EN 61000-6-2 EMC immunity standard.
- BS EN 61000-6-4 EMC emission standard.

STATIC BATTERY CHARGER

- Battery charger is manufactured with switching-mode and SMD technology and it has high efficiency.
- Battery charger models' output V-I characteristic is very close to square and output is 5 amper, 13,8 V for 12 volt and 27,6 V for 24 V . Input 198 - 264 volt AC.
- The charger is fitted with a protection diode across the output.
- Connect charge fail relay coil between positive output and CF output.
- They are equipped with RFI filter to reduce electrical noise radiated from the device.
- Galvanically isolated input and output typically 4kV for high reliability.