



INTRODUCTION

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

General Characteristics

Model Name	APD 89 C
Frequency (Hz)	50
Fuel Type	Diesel
Engine Made and Model	CUMMINS - 4BTA3.9-G11
Alternator Made and Model	Aksa - AK 370
Control Panel Model	DSE 6120
Canopy	ACP 5

3 Phase, 50 Hz, PF 0.8

VOLTAGE	STANDBY RATING (ESP)		PRIME RATING (PRP)		Standby Amper
	kVA	kW	kVA	kW	



400/231

89

71.20

78

62.40

128.46

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		CUMMINS
Engine Model		4BTA3.9-G11
NO. OF CYLINDERS AND BUILD		4 cylinders - in line
BORE AND STROKE	mm	102 X 120
TOTAL DISPLACEMENT	L	3,90
Aspiration		Turbo Charged and AfterCooled
COMPRESSION RATIO		17.3:1
RATED SPEED (RPM)	d/dk	1500
OIL CAPACITY	L	10,9

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



Standby Power (kW/HP)		80/107
Prime Power		70/93
Block Heater QTY		
		1
Block Heater Power (Watt)		
		500
Fuel Type		
		Diesel
Injection Type and System		
		Direct
Type of Fuel Pump		
		BYC PB
Governor System		
		Electronic
Operating Voltage (Vdc)		
		24 Vdc



Battery and Capacity (Qty/Ah)			
		2x55	
Charge Alternator (A)			
		40	
Cooling Method			
		Water Cooled	
Cooling Fan Air Flow (m3/min)			
		120	
Coolant Capacity (engine only / with radiator) (lt)			
		8.3/22.3	
Air Filter			
		Dry Type	
Fuel Cons. Prime With %100 Load (lt/hr)			
		17.6	
Fuel Cons. Prime With %75 Load (lt/hr)			
		13.2	



Fuel Cons. Prime With %50 Load (lt/hr)			
		9.1	

ALTERNATOR SPECIFICATIONS

Manufacturer		Aksa
Alternator Made and Model		AK 370
Frequency (Hz)	Hz	50
Power (kVA)	kVA	87,5
DESIGN		Brushless
VOLTAGE	V	400
Phase		3
A.V.R.		SX460
Voltage Regulation	(+/-)	1,5%
Insulation System		H
Protection		IP22

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Rated Power Factor		0.8
WEIGHT COMP. GENERATOR (Kg)		383
COOLING AIR (m³/min)	m³	12,96

SIZE and WEIGHT

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
- Low water level alarm
- Oil heater

**ALTERNATOR**

- Anti-Condensation Heater
- Main line circuit breaker

CONTROL SYSTEM

- Earth fault, single set
- Charge Ammeter

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
- Low and high fuel level alarm
- Enclosure: weater protective or sound attenuated
- Trailer



- Tool kit for maintenance

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.
- 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

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- 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.

INTRODUCTION

Sound-attenuated and Weather-protective Enclosures Sound-attenuated and weather protective enclosures for generating sets from Aksa, meet event the sound requirements and provide optimum protection from inclement weather and development by our specialist acoustic engineers. Our modular designed sound insulated canopies provide ease of access for servicing and general maintenance and interchangeable components permitting on-site repair. Enclosures are designed to optimize genset cooling performance, providing you with confidence that genset ratings and ambient capability.

S

Compact footprint, low profile design.

Enclosure, generator set, exhaust system and fuel tank are pre-assembled, pre-integrated and shipped as one package

Body made from steel components treated with polyester powder coating

Fire retardant foam insulation

Easy access to all service points

Exhaust system inside canopy

Large doors on each side

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Control panel viewing window in a lockable access door
Emergency stop push button mounted on enclosure exterior
Cooling fan and battery charging alternator fully guarded
Fuel fill and battery can only be reached via lockable access doors.
Lifting points on the top of canopy and base frame
Customer options available to meet your applications needs.
Aksa makes its generating sets' noise level tests in accordance with directive 2000/14/EC validation of the noise level test has been approved by the notified body Szutest

CANOPY MODEL		ACP 5
WIDTH	mm.	1008
LENGTH	mm.	2282
HEIGHT	mm.	1532
TANK CAPACITY (lt.)	Lt.	180