



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

ISO 14001-2004

TS ISO 8528

TS ISO 9001-2008

CE

SZUTEST

2000/14/EC

General Characteristics

Model Name	AP 60-6
Frequency (Hz)	60
Fuel Type	Diesel
Engine Made and Model	PERKINS - 1103A-33TG1 60Hz
Alternator Made and Model	Mecc Alte - ECP 32-1M/4 C - 60 Hz
Control Panel Model	DSE 6120







Canopy

AK 21

3 Phase, 50 Hz, PF 0.8

VOLTA OF	STANDBY RATING (ESP)		PRIME RATING (PRP)		Charalles Assessed
VOLTAGE	kVA	kW	kVA	kW	Standby Amper
480/277	60	48.00	55	44.00	72.17
380/220	55	44.00	50	40.00	83.57
208/120	55	44.00	50	40.00	152.67

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 perod of operation.

ENGINE SPECIFICATIONS

Engine	PERKINS
Engine Model	1103A-33TG1 60Hz
NO. OF CYLINDERS AND BUILD	3 cylinders - in line







BORE AND STROKE n		105 X 127	
TOTAL DISPLACEMENT	L	3.3	
Aspiration		Turbo Charged	
COMPRESSION RATIO		17.25:1	
RATED SPEED (RPM)	d/dk	1800	
OIL CAPACITY	OIL CAPACITY L		
Standby Power (kW/HP)	55.6/74.56		
Prime Power		50.5/67.72	
Block Heater QTY	Block Heater QTY		
Block Heater Power (Watt)	55		
Fuel Type		Diesel	
Injection Type and System			







	Direct		
Type of Fuel Pump		Rotary	
Governor System		Mechanic	
Operating Voltage (Vdc)		12 Vdc	
Battery and Capacity (Qty/Ah)		1x55	
Charge Alternator (A)		65	
Cooling Method		Water Co	oled
Cooling Fan Air Flow (m3/min)		70	
Coolant Capacity (engine only / with radiator) (It)			







	4,4/10,2	
Air Filter		Dry Type
Fuel Cons. Prime With %100 Load (lt/hr)		12.9
Fuel Cons. Prime With %75 Load (It/hr)		9.9
Fuel Cons. Prime With %50 Load (lt/hr)		7.1

ALTERNATOR SPECIFICATIONS

Manufacturer		Mecc Alte	
Alternator Made and Model		ECP 32-1M/4 C - 60 Hz	
Frequency (Hz)	Hz	60	
Power (kVA) kVA		55	
DESIGN		4 Pole, Brushless	





VOLTAGE	v	208
Phase		3
A.V.R.		DSR
Voltage Regulation	(+/-)	1
Insulation System		н
Protection		IP23
Rated Power Factor		0.8
WEIGHT COMP. GENERATOR (Kg)		186
COOLING AIR (m³/min)	m ³	15.7

SIZE and WEIGHT

Open Type	DRY WEIGHT (kg.) (kg.)	LENGTH (mm.)	WIDTH (mm.)	HEIGHT (mm.)	TANK CAPACITY (It.) (Lt.)
		1691	970	1206	80





CANOPY	DRY WEIGHT (kg.) (kg.)	LENGTH (mm.)	WIDTH (mm.)	HEIGHT (mm.)	TANK CAPACITY (It.) (Lt.)
AK 21	960	2102	1026	1290	80

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
- Over sized alternator
- Main line circuit breaker

CONTROL SYSTEM

- Remote annunciator panel
- Remote relay output
- Alarm output relays
- Remote communication with modem
- Earth fault, single set





• Charge Ammeter

TRANSFER SWITCH

- Three or 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
- 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
- Supplied with oil and coolant 30 °C
- · Battery isolating 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 (utilty) 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

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

- Elecrical 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.

STANDARD SPECIFICATIONS

Compact footprint, low profile design.

Enclosure, generator set, exhaust system and fuel tank are pre-ssembled, 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

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 aproved by the notified body Szutest

CANOPY MODE	AK 21	
WIDTH	mm.	1030
LENGTH	mm.	2102
HEIGHT	1290	
TANK CAPACITY (It.)	80	