



# 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
TS ISO 9001-2008
CE
SZUTEST
2000/14/EC

# **General Characteristics**

Model Name	AP 15
Frequency (Hz)	50
Fuel Type	Diesel
Engine Made and Model	PERKINS - 403A-15G1
Alternator Made and Model	Mecc Alte - ECP 3-2L/4 C
Control Panel Model	DSE 6120
Canopy	AK 10

3 Phase, 50 Hz, PF 0.8







400/231 14.5	11.60	13	10.40	20.93
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**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		403A-15G1	
NO. OF CYLINDERS AND BUILD		3 cylinders - in line	
BORE AND STROKE	BORE AND STROKE mm		
TOTAL DISPLACEMENT	TOTAL DISPLACEMENT L		
Aspiration	Aspiration		
COMPRESSION RATIO		22.5:1	
RATED SPEED (RPM)	RATED SPEED (RPM) d/dk		
OIL CAPACITY	L	6.0	
Standby Power (kW/HP)	13.5/18.09		
Prime Power		12.2/16.35	
Block Heater QTY		1	
Block Heater Power (Watt)			





	250
Fuel Type	B: .
	Diesel
Injection Type and System	Indirect
Type of Fuel Dump	7
Type of Fuel Pump	Zexel Cassette type - In-Line
Governor System	NA
	Mechanic
Operating Voltage (Vdc)	12 Vdc
Battery and Capacity (Qty/Ah)	120
	1x36
Charge Alternator (A)	15
Cooling Method	Water Cooled
	water Cooled
Cooling Fan Air Flow (m3/min)	36.6
Coolant Capacity (engine only / with	
radiator) (It)	2.6/6.0
Air Filter	Dry Type
Fuel Cons. Prime With %100 Load (lt/hr)	





	3.67	
Fuel Cons. Prime With %75 Load (It/hr)		2.79
Fuel Cons. Prime With %50 Load (lt/hr)		2.04

# **ALTERNATOR SPECIFICATIONS**

Manufacture	Mecc Alte		
Alternator Made ar	ECP 3-2L/4 C		
Frequency (Hz) Hz		50	
Power (kVA) kVA		13.5	
DESIGN	Brushless		
VOLTAGE	VOLTAGE V		
Phase	3		
A.V.R.	DSR		
Voltage Regulation	1		
Insulation Sys	Н		
Protection	IP23		
Rated Power Fa	0.8		
WEIGHT COMP. GENE	87		
COOLING AIR (m³/min)	3		





# **SIZE and WEIGHT**

Open Type	DRY WEIGHT (kg.) (kg.)	LENGTH (mm.)	WIDTH (mm.)	HEIGHT (mm.)	TANK CAPACITY (It.) (Lt.)
Image not found of ty	pe unknown 425	1265	850	1067	50
CANOPY	DRY WEIGHT (kg.) (kg.)	LENGTH (mm.)	WIDTH (mm.)	HEIGHT (mm.)	TANK CAPACITY (It.) (Lt.)

## STANDARD 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

- 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.

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## STANDARD SPECIFICATIONS

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

Control panel viewing window in a lockable access door

Emergency stop push button mounted on enclosure exterior

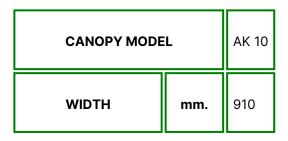
Cooling fan and battery charging alternator fully guarded

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 application's 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







LENGTH	mm.	1851
HEIGHT	mm.	1181
TANK CAPACITY (It.)	Lt.	50