

## INTRODUCTION

**Power (kVA)** 

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.

#### 3 Phase, 50 Hz, PF 0.8

Voltage	STANDBY RATING (ESP)		PRIME RATING (PRP)		Standby Amper	
voltage	kW	kVA	kW	kVA		
400/231	36,00	45,00	32,80	41,00	64,95	

**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.

### **General Characteristics**

Model Name	ALG 45
Frequency (Hz)	50
Fuel Type	Natural Gas
Engine Made and Model	LOVOL NG 1006NG
Alternator Made and Model	ECP 32-3S/4 B
Control Panel Model	DSE 6120
Canopy	AK40-ALG45

#### **ENGINE SPECIFICATIONS**

ENGINE SPECIFICATIONS	
Engine	LOVOL NG
Engine Model	1006NG
Number of Cylinder (L)	6 cylinders - in line
Bore (mm.)	100
Stroke (mm.)	127
Displacement (lt.)	5.98
Aspiration	Naturally Aspirated
Compression Ratio	10.0:3
RPM (d/dk)	1500
Oil Capacity (Total With Filter) (It)	16.1
Standby Power (kW/HP)	40/44
Block Heater QTY	1
Block Heater Power (Watt)	1000
Fuel Type	Natural Gas
Operating Voltage (Vdc)	12 Vdc
Battery and Capacity (Qty/Ah)	1x56
Cooling Method	Water Cooled
Coolant Capacity (engine only / with radiator) (It)	/23.1
Air Filter	Dry Type

Fuel Cons. Prime With %100 Load (m<sup>3</sup>/hr)

**AKSA** POWER GENERATION

7,8

ALG 45

Manufacturer	Mecc Alte	
Alternator Made and Model	ECP 32-3S/4 B	
Frequency (Hz)	50	
Power (kVA)	42.5	
Voltage (V)	400	
Phase	3	
A.V.R.	DSR	
Voltage Regulation	(+/-)1%	
Insulation System	н	
Protection	IP23	
Rated Power Factor	0.8	
WEIGHT COMP. GENERATOR (Kg)	209	
COOLING AIR (m³/min)	11.8	
Open Gen.Set Dimensions (mm)		
LENGTH	2150	
WIDTH	1050	
HEIGHT	1321	
Gen.Set Canopy Dimensions (mm)		
LENGTH	3100	
WIDTH	1050	
HEIGHT	1641	
DRY WEIGHT (kg.)	1270	

# INTRODUCTION

No Data

## **Control Panel**

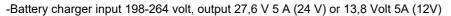
Control Module	DSE
Control Module Model	DSE 6120
Communication Ports	CANBUS
	<ol> <li>Menu navigation buttons</li> <li>Close mains button</li> <li>Main Status and instrumentation display</li> <li>Alarm LED's</li> <li>Close generator button</li> <li>Status LED's</li> </ol>

7. Operation selecting buttons

#### **Devices**

-DSE, model 6120 Auto Mains Failure control module.





-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

**AKSA** POWER GENERATION

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.

#### STANDARD SPECIFICATIONS

-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.

Instruments

-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.

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
er reserves the right to make change in the mode

## **AKSA** POWER GENERATION



-Mains enabled.

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.

## Options

-Flexible sensor can be controlled with temperature, pressure, percentage (warning/shutdown/electrical trip)

ALG 45

-Local setting parameters and monitoring from PC to control module with USB connection (max 6 mt).

Standards

-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.

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- Galvanically isolated input and output typically 4kV for high reliability.

#### **STANDARD SPECIFICATIONS**

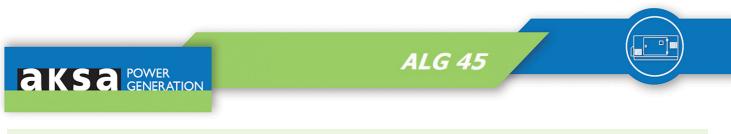
**AKSA** POWER GENERATION

- Heavy duty, water cooled naturalgas engine
- 46/50 °C ambient rated radiator with mechanical fan
- Protective grille for fan and rotating parts
- Electric starter and charge alternator
- Starting battery (with lead acid) including rack and cables
- Engine jacket cooling 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 belows supplied separately
- Static battery charger
- Manual for use and installation

### **OPTIONAL EQUIPMENTS**

ENGINE
Remote Radiator Cooling
Low Coolant level alarm
ALTERNATOR
Anti-Condensation heater
Over sized alternator
Main line circuit breaker
CONTROL SYSTEM
Remote annunciator panel
Uzağa alarm paneli
Alarm output relays
Earth fault, single set
Charging ammeter
TRANSFER SWITCH
Üç kutuplu kontaktör
Four Pole Contactor
VISE ACCESSORIES
Manual oil drain pump
Electrical oil drain pump
Enclosure: weater protective or sound attenuated
Duct adapter ( on radiator)
Inlet and outlet motorised louvers
Tool kit for maintenance

#### **AKSA CERTIFICATES**



- TS ISO 8528
- CE
- SZUTEST
- 2000/14/EC