AC 110

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.

Power (kVA)

3 Phase,50 Hz, PF 0.8

Voltage	STANDBY RATING (ESP)		PRIME RATING (PRP)		Standby Amper
	kW	kVA	kW	kVA	
400/231	88,00	110,00	80,00	100,00	158,78

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.

General Characteristics

Model Name	AC 110
Frequency (Hz)	50
Fuel Type	Diesel
Engine Made and Model	CUMMINS 6BTA5.9-G5 fr92241
Alternator Made and Model	ECP 34-2S/4 C
Control Panel Model	DSE 6120
Canopy	AK 40

ENGINE SPECIFICATIONS

Engine	CUMMINS
Engine Model	6BTA5.9-G5 fr92241
Number of Cylinder (L)	6 cylinders - in line
Bore (mm.)	102
Stroke (mm.)	120
Displacement (lt.)	5.9
Aspiration	Turbo Charged and AfterCooled
Compression Ratio	17.6:1
RPM (d/dk)	1500

Manufacturer reserves the right to make change in the model, technical specifications, color, equipment, accessories and images without prior notice. (19.01.2024)

Oil Capacity (Total With Filter) (lt)	16.4
Standby Power (kW/HP)	102/137
Prime Power	93/125
Block Heater QTY	1
Block Heater Power (Watt)	1000
Fuel Type	Diesel
Injection Type and System	Direct
Type of Fuel Pump	Bosch A In-Line
Governor System	Electronic
Operating Voltage (Vdc)	12 Vdc
Battery and Capacity (Qty/Ah)	1x66
Charge Alternator (A)	55
Cooling Method	Water Cooled
Cooling Fan Air Flow (m3/min)	216
Coolant Capacity (engine only / with radiator) (lt)	9.1/19.8
Air Filter	Dry Type
Fuel Cons. Prime With %100 Load (lt/hr)	25
Fuel Cons. Prime With %75 Load (lt/hr)	18
Fuel Cons. Prime With %50 Load (lt/hr)	12

ALTERNATOR CHARACTERISTICS

Manufacturer	Mecc Alte
Alternator Made and Model	ECP 34-2S/4 C
Frequency (Hz)	50
Power (kVA)	100
Voltage (V)	400
Phase	3
A.V.R.	DSR
Voltage Regulation	(+/-)1%
Insulation System	H
Protection	IP23
Rated Power Factor	0.8
WEIGHT COMP. GENERATOR (Kg)	349
COOLING AIR (m^3/min)	29.2

Open Gen.Set Dimensions (mm)

LENGTH	2173
WIDTH	1050
HEIGHT	1633
DRY WEIGHT (kg.)	1320
TANK CAPACITY (lt.)	240

Manufacturer reserves the right to make change in the model, technical specifications, color, equipment, accessories and images without prior notice. (19.01.2024)

Gen.Set Canopy Dimensions (mm)

LENGTH	3105
WIDTH	1107
HEIGHT	1803
DRY WEIGHT (kg.)	1620
TANK CAPACITY (lt.)	240

1. Steel structures
2. Emergency stop push button
3. Control panel is right side of the set.
4. Corrosion.resistant locks and hinges
5. Sump drains valves
6. Sound proof foam metarial
7. Lifting Points

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.

Control Panel

Control Module	DSE
Control Module Model	DSE 6120
Communication Ports	CANBUS

1. Menu navigation buttons
2. Close mains button
3. Main Status and instrumentation display
4. Alarm LED's
5. Close generator button
6. Status LED's
7. Operation selecting buttons

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.

Manufacturer reserves the right to make change in the model, technical specifications, color, equipment, accessories and images without prior notice. (19.01.2024)

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.

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.

-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.

Instruments

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.

WARNING

-Charge failure.

-Battery Low/High voltage.

-Fail to stop.

Manufacturer reserves the right to make change in the model, technical specifications, color, equipment, accessories and images without prior notice. (19.01.2024)

-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)

-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 ıt 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.

STANDARD SPECIFICATIONS

- Water cooled, Diesel engine

- Radiator with mechanical fan

- Protective grille for rotating and hot parts

- Electric starter and charge alternator

Manufacturer reserves the right to make change in the model, technical specifications, color, equipment, accessories and images without prior notice. (19.01.2024)

- 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
- Generators Sets' voltage and frequency regulation comply with ISO 8528-5
- Generators Sets' can take 100% load at one step according to NFPA110

OPTIONAL EQUIPMENTS

ENGINE
Remote Radiator Cooling
Electronic governor control
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
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
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

Manufacturer reserves the right to make change in the model, technical specifications, color, equipment, accessories and images without prior notice. (19.01.2024)

1500/3000 hours maintenance kit
Double wall chassis
Supplied with oil and coolant - 30 °C
Battery isolating switch

AKSA CERTIFICATES

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

Manufacturer reserves the right to make change in the model, technical specifications, color, equipment, accessories and images without prior notice. (19.01.2024)