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,60 Hz, PF 0.8

Voltage	STANDBY RATING (ESP)		PRIME RATING (PRP)		Standby Amper
	kW	kVA	kW	kVA	
380/220	128,80	161,00	116,80	146,00	244,62
208/120	135,20	169,00	123,20	154,00	469,11
480/277	135,20	169,00	123,20	154,00	469,11

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 169-6
Frequency (Hz)	60
Fuel Type	Diesel
Engine Made and Model	CUMMINS 6BTAA 5,9-G6 - 60Hz
Alternator Made and Model	UCI 274 E - 60Hz
Control Panel Model	DSE 6020
Canopy	MS 60

ENGINE SPECIFICATIONS

Engine	CUMMINS
Engine Model	6BTAA 5,9-G6 - 60Hz
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	16.5:1
RPM (d/dk)	1800
Oil Capacity (Total With Filter) (lt)	16.4
Standby Power (kW/HP)	160/215
Block Heater QTY	1
Block Heater Power (Watt)	1000
Fuel Type	Diesel
Injection Type and System	Direct

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Type of Fuel Pump	Bosch Rotary Type
Governor System	Electronic
Operating Voltage (Vdc)	12 Vdc
Battery and Capacity (Qty/Ah)	1x85
Charge Alternator (A)	55
Cooling Method	Water Cooled
Cooling Fan Air Flow (m3/min)	162
Coolant Capacity (engine only / with radiator) (lt)	9.1/21.4
Air Filter	Dry Type
Fuel Cons. Prime With %100 Load (lt/hr)	39
Fuel Cons. Prime With %75 Load (lt/hr)	31
Fuel Cons. Prime With %50 Load (lt/hr)	21

ALTERNATOR CHARACTERISTICS

Manufacturer	Stamford
Alternator Made and Model	UCI 274 E - 60Hz
Frequency (Hz)	60
Power (kVA)	146
Voltage (V)	380
Phase	3
A.V.R.	AS440
Voltage Regulation	(+/-)1%
Insulation System	H
Rated Power Factor	0.8
WEIGHT COMP. GENERATOR (Kg)	492
COOLING AIR (m^3/min)	37

Open Gen.Set Dimensions (mm)

LENGTH	2750
WIDTH	1300
HEIGHT	1751
TANK CAPACITY (lt.)	470

Gen.Set Canopy Dimensions (mm)

LENGTH	3934
WIDTH	1356
HEIGHT	2156
DRY WEIGHT (kg.)	2240
TANK CAPACITY (lt.)	470

1. Steel structures.
2. Emergency stop push button.
3. Control panel is mounted on the baseframe . Located at the right side of the generator set.

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4. Corrosion-resistant locks and hinges.
5. Oil could be drained via valve and a hose
6. Exhaust system in the canopy.
7. Special large access doors for easy maintanance
8. In front and back side special large access doors for easy maintanance
9. Base frame -fuel tank.
10. Lifting points similar to ISO container , located on each top corner of the canopy.
11. The cap on the canopy provides easy accsess to radiator cap.
12. Sound proofing materials
13. Plastic air intake pockets.

INTRODUCTION

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 6020

1. Main status display.
2. Display scroll button.
3. Page(information) button.
4. Common alarm indicator.
5. Status LED's.
6. Operation selecting buttons.

Devices

-DSE, model 6020 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 6020 is a standard control module for our generator sets up to 200kVA and ıt has been designed to start and stop diesel and gas generator sets.

The DSE 6020 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 DSE6020 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.

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-LCD display makes information easy to read.

-4-line, 64 x 132 pixel display.

-Automatically transfers between mains (utilty) and generator power.

-Manual programming on front panel.

-User-friendly set-up and button layout.

-Remote start.

-Event logging (5)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.

MAINS

-Voltage (L-L, L-N).

-Frequency.

-Mains ready.

-Mains enabled.

-Gen. Set ready.

-Gen. Set 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

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-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.

Proline 2405 has fully output shot circuit protection and ıt can be used as a current source.

Proline 1205/2405 charger has high efficiency, long life, low failure rate, light weight and low heat radiated in accordance with linear alternatives.

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 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

TRANSFER SWITCH

- Three or four pole motor operated circuit breaker

- Four Pole Contactor

- Three Pole Contactor

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OTHER ACCESSORIES
- Supplied with oil and coolant - 30 °C
- Tool kit for maintenance
- Trailer
- Automatic transfer switch
- Main Fuel Tank
- Battery isolating switch
- Inlet and outlet acoustic baffles
- Low and high fuel level alarm
- Electrical oil drain pump
- Automatic or manual fuel filling system
- Duct adapter (on radiator)
- Enclosure: weater protective or sound attenuated
- Residential silencer
CONTROL SYSTEM
- Remote communication with modem
- Alarm output relays
- Charge Ammeter
- Earth fault, single set
- Remote relay output
- Paralel system with mains.
- Automatic synchronising and power control system (multi gen-set
Parallel)
- Remote annunciator panel
- Transition synchronization with mains
ENGINE
- Oil heater
- Low water level alarm
- Fuel-Water Seperator Filter
ALTERNATOR
- PMG excitation + AVR
- Main line circuit breaker
- Anti-Condensation Heater
- Over sized alternator

AKSA CERTIFICATES

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

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