



INTRODUCTION

Akxa 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

400V, 3Phase, 50Hz, PF 0.8

VOLTAGE (V)	STANDBY RATING (ESP)		PRIME RATING (PRP)		Standby Current (A)
	kWe	kVA	kWe	kVA	
400/230	13.20	16.50	12.00	15.00	23.82

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	ABG 17
Frequency (Hz)	50
Fuel Type	Natural Gas (Pipeline)
Engine Made and Model	BRIGGS & STRATTON VANGUARD 61H2
Alternator	Mecc Alte ECP 3-1L/2
Control Panel Model	DSE 6120
Canopy	AKS-PG-17
Genset Gas Inlet Pressure	20-25mbar

ENGINE SPECIFICATIONS

Engine	BRIGGS & STRATTON VANGUARD
Engine Model	61H2
Number of Cylinder	2
Bore (mm)	85.5
Stroke (mm)	86.5
Displacement (cc)	993
Aspiration	Naturally Aspirated
Compression Ratio	9:1
Engine Speed (rpm)	3000
Oil Capacity (Total With Filter) (L)	2.3
Maximum Power @3200rpm (kWm) ^{1,2,3,4}	13.4



Fuel Type	Natural Gas (Pipeline)
Injection Type and System	Spark-Ignited
Governor System	Mechanical
Operating Voltage (Vdc)	12
Battery and Capacity (Qty / Ah)	1 x 55
Charge Alternator (A)	5
Cooling Method	Air Cooled
Cooling Fan Air Flow (m ³ /min) ⁵	17.7
Coolant Capacity (engine only / with radiator) (L)	N/A
Air Filter	Dry Type
Fuel Cons. Prime With %100 Load (kg/hr / m ³ /hr) ^{3,4,6}	6.8 / 4.87

ALTERNATOR CHARACTERISTICS

Manufacturer	Mecc Alte
Alternator Made and Model	ECP 3-1L/2
Frequency (Hz)	50
Power (kVA)	16
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)	80
Cooling Air (m ³ /min)	6

Gen.Set Canopy Dimensions

Length (mm)	1440
Width (mm)	670
Height (mm)	780

1 Max load and overload ratings based on ISO 3046 gross flywheel power.

2 Technical data based on ISO 3046-1 standards of 77°F(25°C), 14.5Psia (100kPa) and 30% relative humidity.

3 Production tolerances in engines and installed components can account for power variations of ± 5%. Altitude, temperature and excessive exhaust and intake restrictions should be applied to power calculations.

4 All fuel and thermal calculations unless otherwise noted are done at ISO 3046 rated load using LHV for NG of 48.17 MJ/kg.

5 At 0.5 in-H₂O of Package Restriction at STP

6. Volume calculated using density of 0.717 kg/m³ for NG, 0.51 kg/L for LPG



- Steel structures
- Emergency stop push button
- Corrosion.resistant locks and hinges
- Sump drains valves
- Sound proof foam material

INTRODUCTION

Sound-attenuated and Weather-protective Enclosures Sound-attenuated and weather protective enclosures for generating sets from Akxa, 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.

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 (utility) 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.
 - 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).

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.

**STANDARD SPECIFICATIONS**

- Heavy duty, air cooled natural gas engine
- Protective grille for fan and rotating parts
- Electric starter and charge alternator
- Starting battery (with lead acid) including rack and cables
- Static battery charger
- Class H alternator
- Industrial exhaust silencer and steel belows supplied separately
- Manual for use and installation

AKSA CERTIFICATES

- TS ISO 8528
- CE