



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	560,00	700,00	510,40	638,00	1010,39

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	AC 700
Frequency (Hz)	50
Fuel Type	Diesel
Engine Made and Model	CUMMINS VTA28-G5
Alternator Made and Model	ECO 40-3L/4C
Control Panel Model	DSE 7320
Canopy	MS 85

ENGINE SPECIFICATIONS

Engine	CUMMINS
Engine Model	VTA28-G5
Number of Cylinder (L)	12 cylinders - V type
Bore (mm.)	140
Stroke (mm.)	152
Displacement (lt.)	28
Aspiration	Turbo Charged and AfterCooled
Compression Ratio	13.1:1
RPM (d/dk)	1500
Oil Capacity (Total With Filter) (lt)	83
Standby Power (kW/HP)	621/820
Prime Power	560/750
Block Heater QTY	1
Block Heater Power (Watt)	3000
Fuel Type	Diesel
Injection Type and System	Direct
Type of Fuel Pump	Cummins PT
Governor System	Electronic
Operating Voltage (Vdc)	24 Vdc



Battery and Capacity (Qty/Ah)	2x143
Charge Alternator (A)	35
Cooling Method	Water Cooled
Cooling Fan Air Flow (m3/min)	651
Coolant Capacity (engine only / with radiator) (lt)	80/170
Air Filter	Dry Type
Fuel Cons. Prime With %100 Load (lt/hr)	140
Fuel Cons. Prime With %75 Load (lt/hr)	104
Fuel Cons. Prime With %50 Load (lt/hr)	73

ALTERNATOR CHARACTERISTICS

Manufacturer	Mecc Alte
Alternator Made and Model	ECO 40-3L/4C
Frequency (Hz)	50
Power (kVA)	680
VOLTAGE (V)	400
Phase	3
A.V.R.	DER1
Voltage Regulation	(+/-)0.5%
Insulation System	H
Protection	IP23
Rated Power Factor	0.8
WEIGHT COMP. GENERATOR (Kg)	1534
COOLING AIR (m ³ /min)	54

Open Gen.Set Dimensions (mm)

LENGTH	3644
WIDTH	1550
HEIGHT	2270
DRY WEIGHT (kg.)	5470
TANK CAPACITY (lt.)	1000

Gen.Set Canopy Dimensions (mm)

LENGTH	5282
WIDTH	1605
HEIGHT	2504
DRY WEIGHT (kg.)	7030
TANK CAPACITY (lt.)	1000

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.



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 maintenance
8. In front and back side special large access doors for easy maintenance
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 access to radiator cap.
12. Soundproofing materials
13. Plastic air intake pockets.

INTRODUCTION

Sound-attenuated and weather-protective enclosures for generating sets from Aksa, meet even 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 7320
Communication Ports	MODBUS

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 7320 Auto Mains Failure control module

Static battery charger

Emergency stop push button and fuses for control circuits

CONSTRUCTION and FINISH

Components installed in a sheet steel enclosure.

Phosphate chemical, pre-coating of steel provides corrosion resistant surface

Polyester composite powder topcoat forms a high gloss and extremely durable finish

Lockable hinged panel door provides for easy component access

INSTALLATION

Control panel is mounted to gen-set baseframe on robust steel stand or power module. Located on the side of generating set with proper panel visibility.

GENERATING SET CONTROL UNIT

The DSE 7320 control module is a standard addition to our generator sets from 220 kVA upwards and it has been designed to start and stop diesel and gas generating sets that include electronic and non-electronic engines.

The DSE 7320 includes the additional capability of being able to monitor a mains (utility) supply and is, therefore, suitable for controlling a standby generating set in conjunction with an automatic transfer switch.

The DSE7320 also indicates operational status and fault conditions, automatically shutting down the generating set and indicating faults by means of its LCD display on the front panel.

**STANDARD SPECIFICATIONS**

Microprocessor controlled

- 132 x 64 pixel LCD display makes information easy to read
- Front panel programming and also via PC software
- Soft touch membrane keypad and five key menu navigation
- Remote communications via RS232, RS485 and ethernet.
- Event logging (50) showing date and time
- Multiple date and time engine exercise mode and maintenance scheduler
- Engine block heater control.
- Controls; stop, manual, auto, test, start, mute lamb test/transfer to generator, transfer to mains, menu navigation.

Instruments**ENGINE**

Engine speed
Oil pressure
Coolant temperature
Run time Battery volts
Engine maintenance due

GENERATOR

Voltage (L-L, L-N)
Current (L1-L2-L3)
Frequency
Earth current
kW
Pf
kVA_r
kWh, kVA_h, kVA_r_h

Phase sequence

MAINS

Voltage (L-L, L-N)
Frequency

WARNING

Charge failure
Battery under voltage
Fail to stop
Low fuel level (opt.)
kW overload
Negative phase sequence
Loss of speed signal

**PRE-ALARMS**

- Low oil pressure
- High engine temperature
- Low engine temperature
- Over /Under speed
- Under/over generator frequency
- Under/over generator voltage

ECU warning**SHUTDOWNS**

- Fail to start
- Emergency stop
- Low oil pressure
- High engine temperature
- Low coolant level
- Over /Under speed
- Under/over generator frequency
- Under/over generator voltage
- Oil pressure sensor open

Phase rotation**ELECTRICAL TRIP**

- Earth fault
- kW overload
- Generator over current
- Negative phase sequence

Options

- High oil temperature shut down
- Low fuel level shut down
- Low fuel level alarm
- High fuel level alarm
- EXPANSION MODULES
- Additional LED module (2548)
- Expansion relay module (2157)
- Expansion input module (2130)

Standards

- 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

2405 has fully output short circuit protection and it can be used as a current source.

2405 charger has high efficiency, long life, low failure rate, lightweight and low heat radiated in accordance with linear alternatives.

The charger is fitted with a protection diode across the output.

Charge fail output is available.

Connect charge fail relay coil between the positive output and CF output.

Input: 196-264V.

Output: 27,6V 5A or 13,8V 5A.

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
- Generators Sets' voltage and frequency regulation comply with ISO 8528-5

OPTIONAL EQUIPMENTS

ENGINE

Remote Radiator Cooling

Fuel-Water Separator Filter

Oil heater

ALTERNATOR

Anti-Condensation Heater

Over sized alternator

PMG excitation + AVR

Main line circuit breaker

CONTROL SYSTEM

Automatic synchronising and power control system (multi gen-set Parallel)

Paralel system with mains.

Remote annunciator panel



Remote relay output

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

Electrical 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

1500/3000 hours maintenance kit

Double wall chassis

Supplied with oil and coolant - 30 °C

AKSA CERTIFICATES

- TS ISO 8528

- CE

- SZUTEST

- 2000/14/EC