



INTRODUCTION

Aksa power generation system, providing optimum performance, and reliability, for stationary standby 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	320,00	400,00	0,00		577,37

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	APD 400 A
Frequency (Hz)	50
Fuel Type	Diesel
Engine Made and Model	N/A CKX6D129TI
Alternator Made and Model	AT400
Control Panel Model	DSE 7320
Canopy	MS 70 CK

ENGINE SPECIFICATIONS

Engine Model	CKX6D129TI
Number of Cylinder (L)	6 cylinders - in line
Bore (mm.)	131
Stroke (mm.)	160
Displacement (lt.)	12.94
Aspiration	Turbo Charged and Intercooled (Air to Air)
Compression Ratio	16.5:1
RPM (d/dk)	1500
Oil Capacity (Total With Filter) (lt)	27
Standby Power (kW/HP)	342/458.4
Block Heater QTY	1
Block Heater Power (Watt)	4000
Fuel Type	Diesel
Injection Type and System	Direct Injection
Governor System	Electronic
Operating Voltage (Vdc)	24 Vdc
Battery and Capacity (Qty/Ah)	2x85
Cooling Method	Water Cooled
Coolant Capacity (engine only / with radiator) (lt)	39/88



Air Filter	Dry Type
Fuel Cons. Prime With %100 Load (lt/hr)	86.70
Fuel Cons. Prime With %75 Load (lt/hr)	65.03
Fuel Cons. Prime With %50 Load (lt/hr)	43.35

ALTERNATOR CHARACTERISTICS

Manufacturer	Aksa
Alternator Made and Model	AT400
Frequency (Hz)	50
Power (kVA)	360
Voltage (V)	400
Phase	3
A.V.R.	SX440
Voltage Regulation	(+/-)%1%
Insulation System	H
Protection	IP22
Rated Power Factor	0.8
WEIGHT COMP. GENERATOR (Kg)	1024
COOLING AIR (m³/min)	29.16

Open Gen.Set Dimensions (mm)

LENGTH	3164
WIDTH	1550
HEIGHT	2141
DRY WEIGHT (kg.)	3050
TANK CAPACITY (lt.)	700

Gen.Set Canopy Dimensions (mm)

LENGTH	4463
WIDTH	1606
HEIGHT	2559
DRY WEIGHT (kg.)	3950
TANK CAPACITY (lt.)	700

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.
11. The cap on the canopy provides easy access 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 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
	<ul style="list-style-type: none">1. Menu navigation buttons2. Close mains button3. Main Status and instrumentation display4. Alarm LED's5. Close generator button6. Status LED's7. Operation selecting buttons

Devices

DSE, model 7320 Auto Mains Failure control module Static battery charger 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 hinged panel door provides for easy component access

INSTALLATION

Control panel is mounted generating set baseframe on robust steel stand or power module. Located at side of generating set with properly 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, manuel, 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
kVAr
kWh, kVAh, kVArh
Phase sequence

MAINS

Voltage (L-L, L-N)
Frequency

WARNING

Charge failure
Battery under voltage
Fail to stop
Low fuel level (opt.)
kW over load
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

**SHUT DOWNS**

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 over load
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

Editional LED module (2548)
Expension 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 shot circuit protection and it can be used as a current source.

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.

Charge fail output is available.



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

Input: 196-264V.

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

STANDARD SPECIFICATIONS

- Heavy duty, 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
- Steel base frame and anti-vibration isolators
- Spare external fuel tank (open set)
- Flexible fuel connection hoses
- Two bearing, class H alternator
- Industrial exhaust silencer and steel bellows supplied separately
- Static battery charger
- Manual for application and installation

OPTIONAL EQUIPMENTS

ENGINE

Fuel-Water Separator Filter

Low water level alarm

Oil heater

ALTERNATOR

Anti-Condensation Heater

Main line circuit breaker

CONTROL SYSTEM

Earth fault, single set

Charge Ammeter

TRANSFER SWITCH

Three Pole Contactor

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

Enclosure: weater protective or sound attenuated

Trailer



Tool kit for maintenance

AKSA CERTIFICATES

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