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	332,00	415,00	300,00	375,00	599,02

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	ADG 415
Frequency (Hz)	50
Fuel Type	Natural Gas
Engine Made and Model	HYUNDAI GV222TI
Alternator Made and Model	ECO 40-1S/4 B
Control Panel Model	DSE 7320
Canopy	MS 86 GZ

ENGINE SPECIFICATIONS

Engine	HYUNDAI
Engine Model	GV222TI
Number of Cylinder (L)	12 cylinders - V type
Bore (mm.)	128
Stroke (mm.)	142
Displacement (lt.)	21.927
Aspiration	Turbo Charged and Intercooled(Water to Air)
Compression Ratio	10.5:1
RPM (d/dk)	1500
Oil Capacity (Total With Filter) (lt)	40
Standby Power (kW/HP)	385/523
Prime Power	350/476
Block Heater QTY	1
Block Heater Power (Watt)	3000
Fuel Type	Natural Gas
Operating Voltage (Vdc)	24 Vdc
Battery and Capacity (Qty/Ah)	2x143
Charge Alternator (A)	45
Cooling Method	Water Cooled

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Cooling Fan Air Flow (m3/min)	670
Coolant Capacity (engine only / with radiator) (lt)	44/285.3
Air Filter	Dry Type
Fuel Cons. Prime With %100 Load (m^3/hr)	95.2
Fuel Cons. Prime With %75 Load (m^3/hr)	88.2
Fuel Cons. Prime With %50 Load (m^3/hr)	73.4

ALTERNATOR CHARACTERISTICS

Manufacturer	Mecc Alte
Alternator Made and Model	ECO 40-1S/4 B
Frequency (Hz)	50
Power (kVA)	400
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)	1049
COOLING AIR (m^3/min)	54

Open Gen.Set Dimensions (mm)

LENGTH	3580
WIDTH	1800
HEIGHT	2040
DRY WEIGHT (kg.)	4730

Gen.Set Canopy Dimensions (mm)

LENGTH	5410
WIDTH	1860
HEIGHT	2650
DRY WEIGHT (kg.)	5670

INTRODUCTION

No Data

Control Panel

Control Module	DSE
Control Module Model	DSE 7320
Communication Ports	MODBUS

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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 7320 Auto Mains Failure control module Static battery charger Emergency stop push button and fuses for control circuits

CONSTRUCTION and FINISH

Comonents 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 conrol module is a standard addition to our generator sets from 220 kVA upwards and it has been designed to start and stop diesel andgas 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

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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

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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

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 it has high efficincy.

Battery charger models' output V-I characteristic is very close to square

2405 has fully output shot circuit protection and ıt 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

- -

OPTIONAL EQUIPMENTS

ENGINE

Low Coolant level alarm

Oil heater

ALTERNATOR

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Anti-Condensation heater
Over sized alternator
Single Phase (4 lead)
Main line circuit breaker
CONTROL SYSTEM
Automatic synchronising and power control system (multi gen-set Parallel)
Paralel system with mains.
Remote annunciator panel
Uzağa alarm paneli
Alarm output relays
Remote communication with modem
Earth fault, single set
Charging ammeter
TRANSFER SWITCH
Four Pole Contactor
VISE ACCESSORIES
Manual oil drain pump
Electrical oil drain pump
Enclosure: weater protective or sound attenuated
Duct adapter (on radiator)
Inlet and outlet motorised louvers
Tool kit for maintenance
1500/3000 hours maintenance kit
Supplied with oil and coolant - 30 °C
Automatic transfer switch

AKSA CERTIFICATES

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

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