



## 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	126,40	158,00	114,40	143,00	228,06

**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	ADG 158
Frequency (Hz)	50
Fuel Type	Natural Gas
Engine Made and Model	HYUNDAI GE08TI
Alternator Made and Model	ECP 34-1L/4 C
Control Panel Model	DSE 6120
Canopy	MS 60 NG

## ENGINE SPECIFICATIONS

Engine	HYUNDAI
Engine Model	GE08TI
Number of Cylinder (L)	6 cylinders - in line
Bore (mm.)	111
Stroke (mm.)	139
Displacement (lt.)	8.071
Aspiration	Turbo Charged and Intercooled(Water to Air)
Compression Ratio	10.5:1
RPM (d/dk)	1500
Oil Capacity (Total With Filter) (lt)	23
Standby Power (kW/HP)	141/191
Prime Power	128/174
Block Heater QTY	1
Block Heater Power (Watt)	1500
Fuel Type	Natural Gas
Operating Voltage (Vdc)	24 Vdc
Battery and Capacity (Qty/Ah)	2x85
Charge Alternator (A)	45
Cooling Method	Water Cooled



Cooling Fan Air Flow (m <sup>3</sup> /min)	210
Coolant Capacity (engine only / with radiator) (lt)	18/157.8
Air Filter	Dry Type
Fuel Cons. Prime With %100 Load (m <sup>3</sup> /hr)	31.8
Fuel Cons. Prime With %75 Load (m <sup>3</sup> /hr)	24.3
Fuel Cons. Prime With %50 Load (m <sup>3</sup> /hr)	17.8

### ALTERNATOR CHARACTERISTICS

Manufacturer	Mecc Alte
Alternator Made and Model	ECP 34-1L/4 C
Frequency (Hz)	50
Power (kVA)	150
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)	423
COOLING AIR (m <sup>3</sup> /min)	29.2

### Open Gen.Set Dimensions (mm)

LENGTH	2860
WIDTH	1300
HEIGHT	1700
DRY WEIGHT (kg.)	1960

### Gen.Set Canopy Dimensions (mm)

LENGTH	3960
WIDTH	1010
HEIGHT	2100
DRY WEIGHT (kg.)	2500

### INTRODUCTION

No Data

### 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.

## 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 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).

#### 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 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

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## OPTIONAL EQUIPMENTS

### ENGINE

Remote Radiator Cooling

Low Coolant level alarm

Oil heater

### ALTERNATOR

Anti-Condensation heater

Over sized alternator

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

### WISE 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