



## INTRODUCTION

Aksa power generation system, providing optimum performance, and reliability, for stationary standby, prime power, and continuous duty applications. All generator sets are factory built, and production tested.

## POWER

3 Phase, 50 Hz, PF 0.8

VOLTAGE (V)	STANDBY RATING (ESP)		PRIME RATING (PRP)		STANDBY CURRENT (A)
	kW	kVA	kW	kVA	
400/231	220.00	275.00	200.00	250.00	396.93

**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	AJD 275-V
Frequency (Hz)	50
Fuel Type	Diesel
Engine Make and Model	John Deere 6090CG550 F
Alternator Make and Model	Mecc Alte ECO38-2M/4 C
Control Panel Model	ComAp IntelliLite AMF 25
Canopy (Colour)	AJD275V Canopy (RAL-1015)

## ENGINE SPECIFICATIONS

### General Data

Manufacturer	John Deere
Engine Model	6090CG550 F
Number of Cylinders	6 cylinders - in line
Bore (mm.)	118
Stroke (mm.)	138
Displacement (lt.)	9.0
Compression Ratio	16.0:1
Engine Speed (rpm)	1500



Standby Power (kW/HP)	273/366
Prime Power (kW/HP)	248/333
Block Heater QTY	1
Block Heater Power (Watt)	1500
Governor System	Electronic
Air Filter	Dry Type

### Lubrication System

Oil Capacity (Total With Filter) (lt)	-
Max. Oil Temperature (°C)	138

### Fuel System

Fuel Type	Diesel
Injection Type and System	L33 Controller
Type of Fuel Pump	Denso HP6

### Electrical System

Operating Voltage (Vdc)	12
Battery and Capacity (Qty/Ah)	1x85
Charge Alternator (A)	-

### Cooling System

Aspiration	Turbo Charged and Air to Air AfterCooled
Cooling Method	Water Cooled
Coolant Capacity (engine only) (lt)	17

### Exhaust System

Exhaust Gas Flow (m <sup>3</sup> /min.)	33.9
Exhaust Back Pressure (kPa)	10.1
Exhaust Gas Temp. (°C)	398

### Radiator

Total Coolant Capacity (lt)	TBD
Cooling Fan Air Flow (m <sup>3</sup> /min.)	-
External Restriction to Cooling Airflow (Pa)	125

### Fuel Consumption

Fuel Cons. Prime With %100 Load (lt/hr)	57.7
Fuel Cons. Prime With %75 Load (lt/hr)	43.2
Fuel Cons. Prime With %50 Load (lt/hr)	29.5

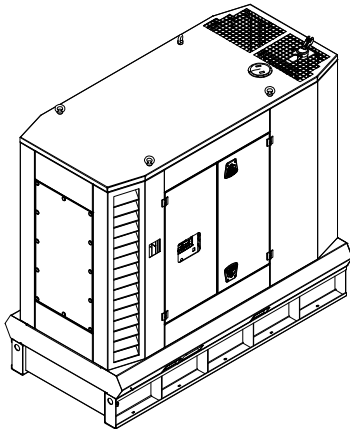


## ALTERNATOR CHARACTERISTICS

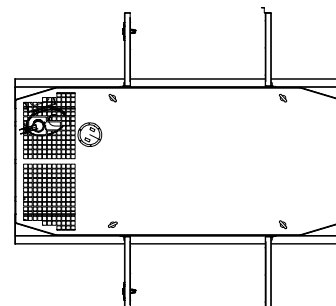
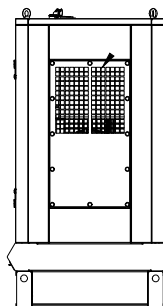
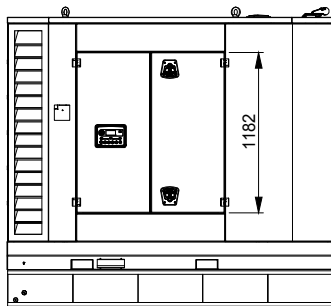
Manufacturer	Mecc Alte
Alternator Model	ECO38-2M/4 C
Frequency (Hz)	50
Power (kVA)	250
Voltage (V)	400
Phase	3
Regulator	DSR
Voltage Regulation	(+/-)1%
Insulation System	H
Protection	IP23
Rated Power Factor	0.8
Weight Complete Generator (kg)	653
Temperature Rise	H

## CANOPY SPECIFICATIONS

Length (mm)	On-demand
Width (mm)	On-demand
Height (mm)	On-demand
Dry Weight (kg.)	On-demand
Tank Capacity (lt.)	On-demand



- Steel structures
- Emergency stop push buttons on each side
- Corrosion resistant locks and hinges
- Sump drains valves
- Sound proof foam material
- Lifting Points
- Double Wall Fuel Tank
- External Fuel Inlets
- Forklift Pockets
- Overflow Pan with Overflow Sensor
- Metal Air Inlet Louvres
- Grounding connection bolt





## CONTROL PANEL

Manufacturer	ComAp
Control Module Model	InteliLite AMF 25
Communication Ports	CANBUS



- MODE→ Cyclic forward selection the gen-set operation mode (OFF →MAN →AUT→TEST)
- ←MODE Cyclic backward selection the gen-set operation mode (TEST →AUT→MAN →OFF)
- HORN RESET Deactivates the HORN
- FAULT RESET Acknowledges faults and alarms
- START Start of the gen-set
- STOP Stop of the gen-set
- MCB ON/OFF Manual open/close of the Mains circuit breaker
- GCB ON/OFF Manual open/close of the Generator circuit breaker
- PAGE Cyclic selection of the display mode(MEASUREMENT->ADJUSTEMENT)
- Select the set point, select the screen or increase set point value
- Select the set point, select the screen or decrease set point value
- ENTER Confirm set point value

### Standard Devices

- ComAp InteliLite AMF 25, control module
- Static battery charger with battery switch
- Emergency stop push button and fuses for control circuits

### Control Unit

- Single Gen-set controller for Stand-by and Primepower applications
- Direct communication with EFI engines
- Total remote monitoring and control via 5G

### Features

- 5 languages in the controller & translator functionality
- 3 levels of password
- 3 sets of alternative configurations
- Magnetic pickup
- ECU support & Tier 4 Final ready
- STAGE V support
- Cloud-based monitoring and control via WebSupervisor
- Geo-Fencing and tracking via WebSupervisor
- Plug-in module concept for more capabilities (RS232, RS485, Ethernet, GPRS, 4G/LTE, Modbus, SNMP, emails, SMS, I/Os)

- 2 slots for plug-in modules
- CAN modules support
- Power over USB for controller's adjustment
- In-built PLC, complemented with a monitoring/debugging tool
- 8 binary outputs, 8 binary inputs, 4 analog inputs
- 2 high-current binary outputs
- Run Hours source selector
- Activation of outputs based on inputs/power/temperature
- Real time clock
- Multipurpose flexible timers (also for rental)

- Comprehensive history log with up to 350 events
- Dual Application: control of Gen-set, transfer switch and alternation
- 3 maintenance timers (counting even under zero)
- Possibility to disable protections
- Modbus register mapping possibility
- Adjustable Main Screen
- A version for low temperature is also available

### Certification and Standards

- EN 61000-6-2
- EN 61000-6-4
- EN 61010-1
- EN 60068-2-1 (-20 °C/16 h for std, -40 °C/16 h for LT version)
- EN 60068-2-2 (70 °C/16 h)

- EN 60068-2-6 (2÷25 Hz / ±1,6 mm; 25÷100 Hz / 4.0 g)
- EN 60068-2-27 (a=500 m/s<sup>2</sup>; T=6 ms)
- EN 60068-2-30:2005 25/55°C, RH 95%, 48hours
- EN 60529 (front panel IP65, back side IP20)
- UL 6200



### 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 EQUIPMENT

- Water cooled, Diesel engine
- Mounted radiator with mechanical fan drive
- Protective grille for rotating and hot parts
- Electric starter and charge alternator
- Lead acid starting battery (with battery switch) including rack and cables
- Engine coolant heater
- Double wall fuel tank with overflow sensor
- Fuel water separator filter
- Anti-vibration isolators between components and chasis
- Aftertreatment System
- Exhaust Temperature Management system
- External fuel filter opening
- Flexible fuel connection hoses
- Industrial exhaust silencer
- Single bearing, class H alternator with Anti-condensation Heater
- Low water level and fuel level alarms
- Static battery charger and battery switch
- Non-ferro plate for alternator and panel side
- Manual for application and installation
- Generators Sets' voltage and frequency regulation comply with ISO 8528-5

### OPTIONAL EQUIPMENT

#### Engine

- Fuel-Water Separator Filter
- Oil heater

#### Alternator

- Over sized alternator
- Main line circuit breaker

#### Canopy

- ISO Container
- Galvanized Coating
- Marine Grade Paint

#### Transfer Switch

- Three or four pole contactor
- Three or four pole motor operated circuit breaker

#### Auxiliary Equipment

- Automatic or manual fuel filling system
- Manual oil drain pump
- Electrical oil drain pump
- Low and high fuel level alarm
- Inlet and outlet motorized louvers
- Inlet and outlet acoustic baffles
- Tool kit for maintenance
- 1500/3000 hours maintenance kit
- Supplied with oil and coolant - 30 °C

**Control System**

- Automatic synchronising and power control system (Multi gen-set Parallel)
- Parallel system with mains.
- Transition synchronization with mains
- Remote relay output
- Alarm output relays
- Remote communication with modem
- Earth fault, single set
- Charge Ammeter

**Optional Alternator and Control Panel Models**

- Please contact to your reseller for additional Alternator, Control Panel and Breaker Switch options.

**AKSA CERTIFICATES****Directives**

- 2006/42/EC : Machinery Safety Directive
- 2004/108/EC : Electromagnetic Compatibility Directive
- 2006/95/EC : Low Voltage Directive

**Standards**

- EN ISO 12100-1:2010 : Safety of machinery -Basic concepts, general principles for design - Risk Assessment and Risk Reduction
- EN ISO 3744:2010 : Acoustics. Determination of sound power levels of noise sources using sound pressure. Engineering method in an essentially free field over a reflecting plane
- EN 60204-1:2018 : Safety of machinery-Electrical equipment of machines General Requirements
- EN ISO 8528-13:2016 : Reciprocating internal combustion engine-driven alternating current generating sets- Part:13: Safety
- BS EN 61000-4-2:2009 : Electromagnetic compatibility (EMC). Testing and Measurement Techniques-Electrostatic Discharge Immunity Test
- BS EN 61000-4-6 : Electromagnetic Compatibility (EMC). Testing and Measurement Techniques-Immunity to Conducted Disturbance Induced by Radio - Frequency Fields
- EN 614-1:2006+A1(2009) : Safety of machinery - Ergonomic design principles - Part 1: Terminology and general principles