

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

3 Phase,50 Hz, PF 0.8

Voltage (V)	STANDBY RATING (ESP)		PRIME RATING (PRP)		STANDBY CURRENT (A)
	kW	kVA	kW	kVA	
400 / 231	35.2	44	32.00	40	64

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	APB 44A
Frequency (Hz)	50
Fuel Type	Diesel
Engine Make and Model	Aksa A4CRX37
Alternator Make and Model	Aksa SC184J
Control Panel Model	HGM6120CAN
Canopy	ACP 4-PB

Engine Specifications

General Data

Manufacturer	Aksa
Engine Model	A4CRX37
Number of Cylinders / Type	4 cylinders - in line
Bore mm (in)	98
Stroke mm (in)	120

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Displacement l (cu. In)	3.6
Compression Ratio	18:1
Engine Speed (rpm)	1500
Standby Power (kW/hp)	42/56
Prime Power (kW/hp)	37/50
Block Heater (QTY)	1
Block Heater Power (Watt)	500
Governor System	Mechanic
Air Filter	Dry Type
Aspiration	Naturally Aspirated

Lubrication System

Oil Capacity l (qal)	10
Max. Oil Temperature ºC (F)	115

Fuel System

Fuel Type	Diesel
Injection Type	Direct
Type of Fuel Pump	4l

Electrical System

Operating Voltage (Vdc)	12 Vdc
Battery and Capacity (Qty/Ah)	1x54

Cooling System

Cooling Method	Water Cooled
Coolant Capacity (engine only) l (gal)	5

Exhaust System

Exhaust Back Pressure in-Hg (kPa)	≤6
Heat Rejection to Exhaust kW (BTU/min)	27,8

Radiator

Total Coolant Capacity (l)	16
External Restriction to Cooling Airflow (Pa)	125

Fuel Consumption

Fuel Cons. @100% Prime Load l/h (kg/h)	10.4

Alternator Characteristics

Manufacturer	Aksa

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Alternator Model	SC184J
Frequency (Hz)	50
Voltage (V)	400
Phase	3
A.V.R.	MC460B
Voltage Regulation	1
Insulation Class	H
Protection Class	IP23
Rated Power Factor	0,8
Temperature Rise Class	H

Canopy Characteristics

Length mm	2086
Width mm	950
Height mm	1360
Dry Weight kg	960
Full Tank Capacity (l)	76

Control Panel

Manufacturer	SmartGen
Control Module Model	HGM6120CAN
Communication Ports	CANBUS



Standard Devices

1. Auto Mains Failure Control Panel

Panel Equipments:

- Control with HGM module
- Static battery charger
- Emergency stop push button

A) Generating set control module HGM6120CAN features:

- Configurable via PC software or the front panel
- 5 programmable inputs (configurable for digital or analog signals)
- 4 programmable relay outputs
- Monitors 3-phase generator and mains (utility) voltage
- Event log (50 records)
- Configurable timers and alarm protection thresholds
- Automatic shutdown or alarm upon fault detection
- Supports remote start/stop and load transfer
- Engine pre-heat control (relay output)
- Precision measurement and display of engine and electrical parameters
- Engine total run time accumulation
- Red LED indicators for alarms/shutdown
- LCD display with backlight, supports 8 language interfaces
- Front panel test button
- Modular design, flush mounting

B) Metering via LCD display:

- Generator Voltage (L-L / L-N)
- Generator Current (L1, L2, L3)
- Generator Frequency (Hz)
- Generator Power (Kw)
- Generator Power Factor (COS Φ)
- Accumulated Generator Energy (kWh)
- Load Percentage (%)
- Engine Oil Pressure (kPa / psi / bar)
- Engine Temperature (°C / °F)
- Fuel Level (%)
- Battery Voltage (V)
- Charger Voltage (V)
- Mains Voltage (L-L / L-N)

C) Alarms:

- Under Speed / Over Speed
- Under Voltage / Over Voltage
- Under Frequency / Over Frequency
- Overload / Over Current / Overpower
- Low Engine Oil Pressure
- High Engine Coolant Temperature
- Low Fuel Level (Optional)
- Low / High Battery Voltage
- Emergency Stop
- Charge Fail
- Sensor Open Circuit
- Fail to Start
- ECU Communication Failure (for EFI engines)

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- Maintenance Due
- Aftertreatment System Related Alarms (foraftertreatment EFI gensets)

2. Power Outlet Terminal Board Mounted on the Gen-set Base Frame

Standard Equipment

High quality, reliable and complete power unit
Compact design
Easy start and maintenance possibility
Every generating set is subject to a comprehensive test program which includes full load testing, checking and provision of all control and safety shut down functions testing
Fully engineered with a wide range of options and accessories: Canopy, sound proof canopy and on-road trailer

Optional Equipment

Engine

Oil heater

Alternator

3/4 Pole Output Circuit Breaker
Anti-condensation Heater

Transfer Panel

Charge ammeter
Transfer Switch 3Pole
Transfer Switch 4 Pole
Earth Fault, single set

Auxiliary Equipment

Bulk fuel tank
Automatic filling system
Fuel-water separator filter
Low fuel level alarm

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Residential silencer
Enclosure or sound proof canopy
Trailer
Manual oil drain pump
Tool kit for maintenance

Aksa Certificates

Directive

- 2006/42/EC : Machinery Safety Directive
- 2014/30/EU : Electromagnetic Compatibility Directive
- 2014/35/EU : Low Voltage Directive

Standarts

- TS ISO 8528-5:2022 / TS EN ISO 8528-13:2018 : Reciprocating internal combustion engine-driven alternating current generating sets- Part:13: Safety

Quality Management Systems
ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
ISO 27001:2013
ISO 10002:2018

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