

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	
380 / 220	10.0	12.5	9.52	11.9	19

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 12500-T
Frequency (Hz)	50
Fuel Type	Diesel
Engine Make and Model	Aksa HR1105FDE
Alternator Make and Model	Aksa 245x130(T)
Control Panel Model	HGM4020CAN
Canopy	APB 12500 KABIN

Engine Specifications

General Data

Manufacturer	Aksa
Engine Model	HR1105FDE
Number of Cylinders / Type	1 cylinder
Bore mm (in)	105
Stroke mm (in)	88

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Displacement l (cu. In)	761
Compression Ratio	20:1
Engine Speed (rpm)	3000
Prime Power (kW/hp)	13
Governor System	Electronic
Air Filter	UNKNOWN

Lubrication System

Oil Capacity l (qal)	2.2

Fuel System

Fuel Type	Diesel
Injection Type	Direct
Type of Fuel Pump	N/A

Electrical System

Operating Voltage (Vdc)	UNKNOWN
Battery and Capacity (Qty/Ah)	36

Cooling System

Cooling Method	Air Cooled

Exhaust System

Fuel Consumption

Fuel Cons. @100% Prime Load l/h (kg/h)	3.38
Fuel Cons. @75% Prime Load l/h (kg/h)	2.58
Fuel Cons. @50% Prime Load l/h (kg/h)	1.93

Alternator Characteristics

Manufacturer	Aksa
Alternator Model	245x130(T)
Frequency (Hz)	50
Voltage (V)	380
Phase	3
A.V.R.	UNKNOWN
Voltage Regulation	1
Insulation Class	H

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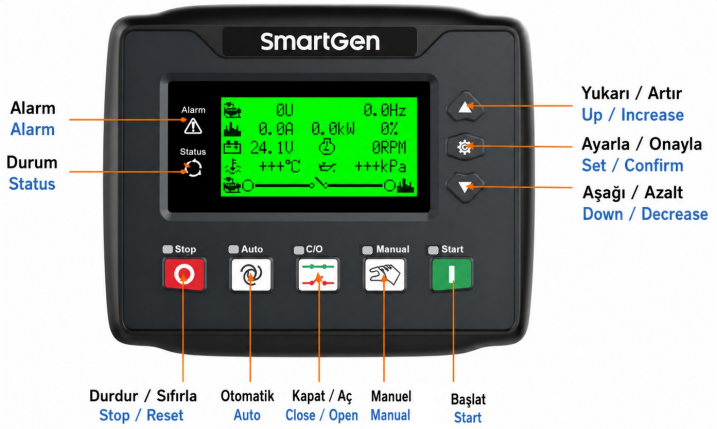
Protection Class	IP23
Temperature Rise Class	H

Canopy Characteristics

Length mm	1130
Width mm	750
Height mm	885
Dry Weight kg	241
Full Tank Capacity (l)	30

Control Panel

Manufacturer	SmartGen
Control Module Model	HGM4020CAN
Communication Ports	CANBUS



Standard Devices

132×64 backlit LCD display.
Selectable language support: Chinese, English, Spanish, Russian, Turkish, French, Portuguese, and Polish.
Push-button operation.
Durable hard acrylic screen protection with excellent wear and scratch resistance.
Silicone panel and buttons suitable for operation in extreme temperature environments.
RS485 communication interface supporting the following functions via MODBUS protocol:

- Remote Control
- Remote Monitoring
- Remote Communication

CANBUS communication port (HGM4020CAN model).
Compatible with engine ECUs supporting the J1939 protocol.
Enables monitoring of the following ECU parameters:

- Engine coolant temperature
- Oil pressure
- Engine speed (RPM)

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- Fuel consumption
- Other essential engine parameters

CANBUS functions include:

- Engine start
- Engine stop
- Speed increase
- Speed decrease

Suitable for the following electrical system configurations:

- 3-Phase 4-Wire
- 3-Phase 3-Wire
- Single-Phase 2-Wire
- 2-Phase 3-Wire

Operating voltage:

- 120/240 V

Operating frequency:

- 50 Hz / 60 Hz

Measures and displays the following generator or mains parameters:

- Three-phase voltages
- Currents
- Power values
- Frequency

Warnings

Warning Alarms
High Temperature
Low Oil Pressure
Gen Over Current
Fail to Stop
Low Fuel Level
Charge Alt Failure
Battery Under Volt
Battery Over Volt
Auxiliary Input
Loss of Speed Signal
Low Coolant Level
Temp. Sensor Open
Oil Pressure Sensor Open
Level Sensor Open
Temp. Sensor 2 Open
Oil Pressure Sensor 2 Open

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Coolant Level Sensor Open
High Temperature 2
Low Oil Pressure 2
Low Coolant Level
Maintenance Due
Gen Over Volt.
Gen Under Volt.
Gen Over Freq.
Gen Under Freq.
Charge Alt Failure
Over Power
ECU Warn

Shutdown Alarms
Emergency Stop
Over Speed
Under Speed
Loss of Speed Signal
Over Frequency
Under Frequency
Over Voltage
Under Voltage
Over Current
Fail to Start
High Temp.
Low Oil Pressure
No Generate Electricity
Low Fuel Level
Low Coolant Level
Temp. Sensor Open
Oil Pressure Sensor Open
Fuel Level Sensor Open
Temp. Sensor 2 Open
Pressure Sensor 2 Open
Coolant Level Sensor Open
High Temp. 2
Low Pressure 2
Low Coolant Level
Maintenance Due
Over Power
Digital Input Port
ECU Alarm
ECU Comm. Failure

Standard Equipment

-High-quality, reliable, and complete power unit
-Compact design
-Easy starting and maintenance

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-Each generator set undergoes a comprehensive test program including full load testing, checking and testing of all control and safety stop functions
-Complete engineering solution with a wide range of options and accessories: Cabin, soundproof canopy, and road-suitable trailer

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 50001:2018
ISO 27001:2013
ISO 10002:2018

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