



AKSA Power Generation has been producing industrial generator sets with an innovative compact design and excellence in quality for over 30 years. AKSA has been providing reliable power through three main production plants and over 15 branch offices worldwide.



General Characteristics

Model Name	APD20A	Frequency / PF	50Hz, 1500 rpm, 0.8pf
Engine Make & Model	Aksa A4CRX24	Alternator Make	Aksa
Control Panel Model	DSE 6020	Base Frame / Enclosure	AKSA ASM3

Genset Rating – 50Hz, 1500rpm, 0.8pf

Engine	Alternator	Voltage	Standby Power	Prime Power	Standby Current
A4CRX24	AK218	400 / 230V	20kVA	18kVA	28A

Stand-by Power (Maximum): Power available at variable load in the event of main power network failure. No over load is permitted.
 Prime Power: Power available at variable load in lieu of a main power network. Overload of 10% is permitted for 1 hour in every 12 hours of operation.
 The above ratings represent the engine performance capabilities to conditions specified in accordance with ISO 8528/5 & ISO3046.
Derating may be required for conditions outside of the test conditions.

Codes & Standards

The Generator set is designed and manufactured in a facility certified to **ISO9001** standards.

The Generator set is designed and manufactured in a facility certified to **ISO14001:2015** standards.

AKSA Power Generation provides **single source responsibility** for the generator set & accessories.

The generator set, with its components, are **prototype tested** and **production tested**



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Engine Data

Manufacturer	Aksa
Model	A4CRX24
Displacement & Cylinders	2.545L / 4 Cylinders
Engine Speed	1500rpm
Engine Standby Power	21 kW / 28 HP
Engine Prime Power	19 kW / 25.5 HP
Aspiration	Naturally Aspired
Compression Ratio	18 : 1
Bore / Stroke	90 mm / 100 mm
Governor	Mechanical
Piston Speed	5 m/s
Friction Horsepower	15 Kw
Intake Air Flow	25.7 L/s
Exhaust Gas Flow	65 L/s
Exhaust Gas Temperature	460 °C

Electric System

Engine Cranking Motor	12V
Engine Battery Charge System	50A, Negative Ground
Battery Qty, Rating, CCA	1 x 54Ah

Cooling System

Coolant Capacity	18.5 L
Max Coolant Friction Head External to Engine 1500rpm	13 kPa
Thermostat Range	76 – 85 °C
Min Pressure Cap	48 kPa
Max Top Tank Temperature	104 °C

Exhaust System

Max Back Pressure	10 kPa
Manifold Insulation	Not Acceptable
Standard Exhaust Pipe Size	60 mm

Fuel System

Type of Injection	Direct Injection
Max Restriction @ Lift Pump	6 kPa (Clean Filter)
Max Allowable Head on Injector Return Line	4 kPa
Max Fuel Pump Supply	30 L/h

Air Intake System

Max Intake Air Restriction	1.87 kPa (Dirty Filter) 1.24 kPa (Clean Filter)
Min Dirt Holding Capacity	10 g/L/s
Max Temp Rise from Ambient to Inlet of Turbo	17 °C

Fuel Consumption

Standby Power (110%)	5.8 L/h
Prime Power (100%)	5.4 L/h

Lubrication System

Max Oil Temperature	120 °C
Oil Capacity : High - Low	8 – 6 L
Min Required Lube Capacity	8.5 L
Max Oil Consumption	0.02 L/h



Alternator Data

Manufacturer	Aksa
Standards	BS EN 60034
Control System	Self Excited
A.V.R.	SX460
Voltage Regulation	± 1.5 %
Insulation System	Class H
Protection	IP22
Rated Power Factor	0.8
Stator Winding	Double Layer Concentric
Winding Pitch	Two Thirds
Winding Leads	12
Telephone Interference	THF < 2 %
Waveform Distortion	No Load < 1.5 %
Maximum Over speed	2250 rev/min

Controller Data

Manufacturer	DSE
Model	6020
Type	Auto Mains Failure Control

Controller Features & Benefits

- Microprocessor controlled
- License free PC Software
- IP65 rating offers increased resistance to water ingress
- Front Panel Editing
- Event log
- Back-lit icon LCD display
- LED and LCD alarm indication
- Power save mode
- PC and front panel configuration
- Configurable timers and alarms

Battery Charger & Electrical System Data

Manufacturer	AKSA
Model	SmartGen BAC06A
Input Voltage	100V ~ 250V AC
Output Voltage / Current	13,8V DC / 6A

- Alternative configuration
- Three phase generator monitoring
- Current monitoring and protection
- Power monitoring (kW, kVA, kVAr)
- Reverse power (kW & kVAr) protection
- Three phase utility monitoring

Jacket Water Heater Data

Manufacturer	AKSA
Model	HTR500W 100-120F
Input Voltage	1 ph, based on gen voltage
Power	500W

- Test feature
- Battery voltage monitoring
- Hours counter
- Comprehensive warning or shutdown on fault condition

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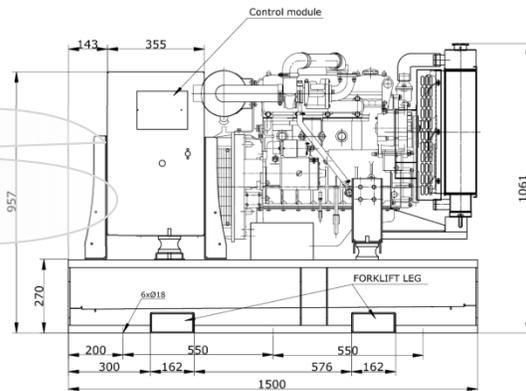
Enclosure Features



- ✓ Heavy Duty Steel Structure
- ✓ E-Stop on Enclosure
- ✓ Control Panel Eliminated from Engine Vibrations
- ✓ Control Panel Window
- ✓ Plastic Covered Corrosion Resistant Locks & Hinges
- ✓ Internally Mounted Exhaust System with Rain Cap
- ✓ Coolant Fill Cap
- ✓ Base Frame Lifting Hooks
- ✓ Base Fuel Tank and Forklift Pockets
- ✓ Easy Access for Maintenance
- ✓ Sound Absorb High Density Foam

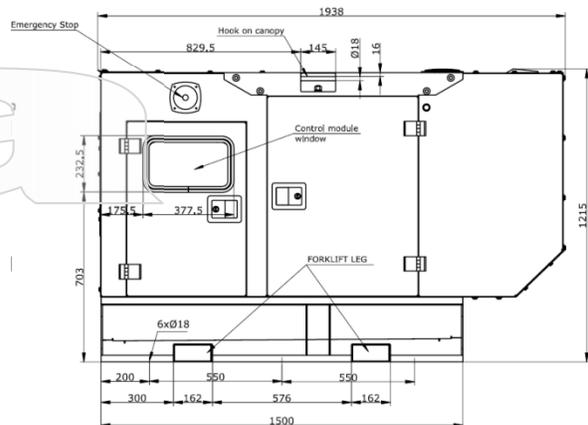
Open Skid Gen-Set Dimensions

Length	1500 mm
Width	900 mm
Height	1061 mm
Dry Weight	665 kg
Tank Capacity	95 L



Enclosed Gen-Set Dimensions

Length	1938 mm
Width	963mm
Height	1215 mm
Dry Weight	870 kg
Tank Capacity	95 L
Sound Pressure @ 7 meters	72.5 dB(A)



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Standard Features & Accessories

- ✓ Heavy Duty Steel Base Frame
- ✓ Integral Fuel Tank, Single Wall
- ✓ Fuel Drain Plug
- ✓ Control Panel Window
- ✓ Engine Jacket Water Heater
- ✓ Battery and Battery Rack
- ✓ Battery Charger
- ✓ Radiator fill cap on enclosure
- ✓ Anti Vibration Pads between Engine/Alternator & Base Frame
- ✓ Residential Grade Silencer Inside Enclosure
- ✓ Industrial Grade Silencer Set for Open Skid Sets
- ✓ Sound Absorb Foam for Enclosure
- ✓ Air Inlet & Outlet Rodent Guards
- ✓ Oil Drain Valve
- ✓ Coolant Drain Valve
- ✓ Flex Fuel Lines
- ✓ Air Filter Restriction Gauge
- ✓ Engine Manifold Cover
- ✓ Turbocharger Cover
- ✓ Protection Covers for Rotating Parts
- ✓ Exhaust Insulation Cover
- ✓ Control Panel Window
- ✓ Operations Manual
- ✓ 24 Months / 2000 hours Limited Standby Warranty

Optional Accessories

- Main Line CB (3 / 4 Poles)
- EBS
- Anti-condensation Heater
- Single wall fuel tank – 24hours capacity
- Double wall fuel tank – 24hours capacity
- Fuel Level Display & Alarm on Controller
- Low / High Fuel Alarms
- Fuel Water Separator Filter
- Auto Fuel Fill Control System
- Oil Temperature Display on Controller
- Manual Speed Adjust Rheostat
- Manual Voltage Adjust Rheostat
- Remote Annunciator Panel
- Remote Control & Monitoring Panel
- Advanced SMS Messaging
- Control Panel Heater
- Battery Disconnect Switch
- Battery Heater
- 10A Battery Charger
- Battery Charge Ammeter
- Tool Kit for Maintenance
- Power Plug Outlet Kit
- Automatic Transfer Panel (ATS) – Contactor Design
- Automatic Transfer Panel (ATS) – Changeover Design

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