

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	APD16A	Frequency / PF	50Hz, 1500 rpm, 0.8pf
Engine Make & Model	Aksa A3CRX14	Alternator Make	Aksa
Control Panel Model	DSE 6020	Base Frame / Enclosure	AKSA ANS1

Genset Rating – 50Hz, 1500rpm, 0.8pf

Engine	Alternator	Voltage	Standby Power	Prime Power	Standby Current
A3CRX14	AK109	400 / 230V	11.5kVA	10.6kVA	16A

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	A3CRX14
Displacement & Cylinders	1.357 L / 3 Cylinders
Engine Speed	1500rpm
Engine Standby Power	12.8 kW / 17.16 HP
Engine Prime Power	11.7 kW / 15.68 HP
Aspiration	Naturally Aspired
Compression Ratio	18 : 1
Bore / Stroke	80 mm / 90 mm
Governor	Mechanical
Piston Speed	4.5 m/s
Friction Horsepower	10.3 Kw
Intake Air Flow	15.5 L/s
Exhaust Gas Flow	NA
Exhaust Gas Temperature	470 °C

Electric System

Engine Cranking Motor	12V
Engine Battery Charge System	50A, Negative Ground
Battery Qty, Rating, CCA	1 x 36Ah

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	48 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%)	4.4 L/h
Prime Power (100%)	4.0 L/h

Lubrication System

Max Oil Temperature	120 °C
Oil Capacity : High - Low	6 – 4 L
Min Required Lube Capacity	6.5 L
Max Oil Consumption	0.02 L/h

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

Battery Charger & Electrical System Data

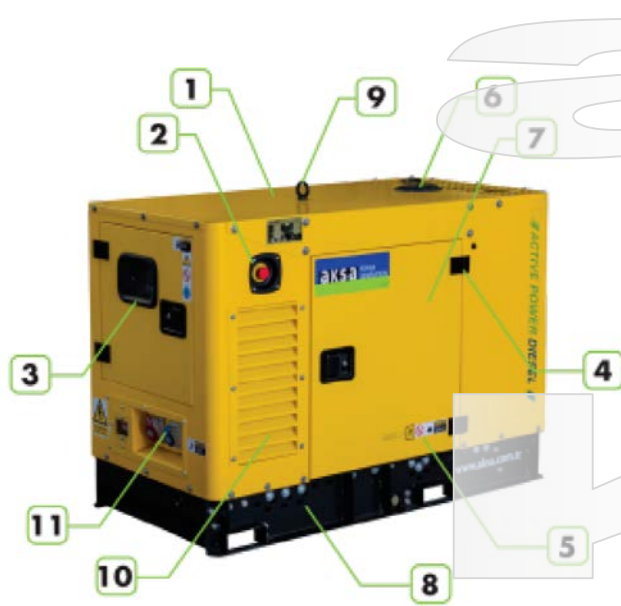
Manufacturer	AKSA
Model	SmartGen BAC06A
Input Voltage	100V ~ 250V AC
Output Voltage / Current	13.8V DC / 6A

Jacket Water Heater Data

Manufacturer	AKSA	Test feature
Model	HTR500W 100-120F	Battery voltage monitoring
Input Voltage	1 ph, based on gen voltage	Hours counter
Power	500W	Comprehensive warning or shutdown on fault condition

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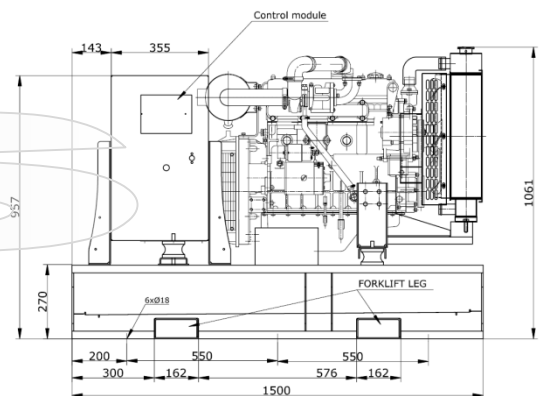
Enclosure Features



- ✓ 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

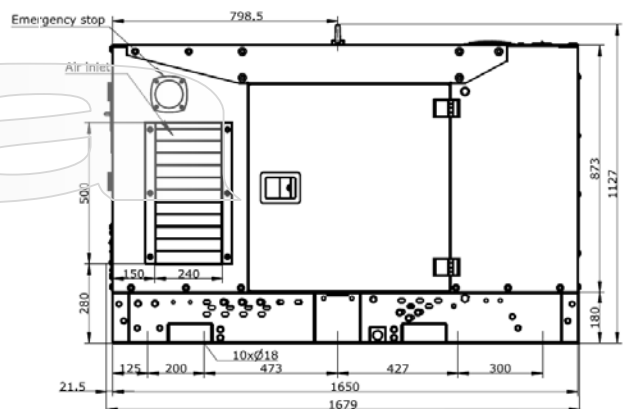
Open Skid Gen-Set Dimensions

Length	1400 mm
Width	760 mm
Height	927 mm
Dry Weight	350 kg
Tank Capacity	32 L



Enclosed Gen-Set Dimensions

Length	1521 mm
Width	823 mm
Height	1127 mm
Dry Weight	470 kg
Tank Capacity	32 L
Sound Pressure @ 7 meters	67 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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