



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 APD140A-6 Frequency PF 60Hz, 1800 rpm, 0.8pf

Engine Make & Model Aksa A6CRX65TI Alternator Make Aksa

Control Panel Model DSE 6020 Base Frame / Enclosure AKSA ASM6

Genset Rating – 60Hz, 1800rpm, 0.8pf

Engine	Alternator	Voltage	Standby Power	Prime Power	Standby Current
A6CRX65TI	AK490	480 / 277V	140kVA	125kVA	168A
	AK4100	380 / 222V	140kVA	125kVA	212A
	AK490	220 / 127V	140kVA	125kVA	367A
	AK4100	208 / 120V	140kVA	125kVA	388A

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**













Engine Data		Electric System		
Manufacturer	Aksa	Engine Cranking Motor	24V	
Model	A6CRX65TI	Engine Battery Charge System	Negative Ground	
Displacement	6.49L	Battery Qty, Rating, CCA	2 x 80Ah	
Cylinders	6 In-line	battery Gry, Rating, CCA	2 X OUAII	
Engine Standby Power	132 kWm	Cooling System		
Engine Speed	1800 rpm	Coolant Capacity – Engine only	9.35 liters	
Aspiration	Turbocharger & Aftercooler	Thermostat Range	76 – 95 °C	
Compression Ratio	17: 1	Max Top Tank Temperature	99 °C	
Bore / Stroke	105 mm / 125 mm	Coolant intake size	Φ52 mm	
Governor	Electronic	Coolant outlet size	Φ52 mm	
Direction of Rotation	Anti-clockwise (viewed on flywheel)	Ceolain outict size	Ψ02 mm	
Firing Order	1-5-3-6-2-4	Exhaust System		
Combustion Cycle	Four stroke, compression ignition	Max Back Pressure	6 kPA	
Steady State Speed Stability at Constant Load	$\pm 0.25\%$	Manifold Insulation	Not Acceptable	
Total Weight (engine only - dry)	$640\pm20~\mathrm{kg}$	Turbocharger Insulation	Not Acceptable	
Sound Pressure	≤ 113 dBA			
Fuel System		Lubrication System		
Type of Injection	Direct Injection	Oil Type	L-ECD 15W/40	
Fuel Injection Pump	PM	Oil Capacity	16 L	
Fuel Oil Type	0# or 10#	Oil temp max to Bearings	115 °C	
		Oil Pressure @ Governed Speed	294 ~ 490 kPA	
Fuel Consumption		Energy Balance		
Standby Power (110%)	32.9 L/h	Energy in Fuel	18285 btu/min	
Prime Power (100%)	29.9 L/h	Gross Heat to Power	6834 btu/min	
Prime Power (75%)	22.4 L/h	Energy to Coolant & Oil	5118 btu/min	
Prime Power (50%)	15.0 L/h	Energy to Exhaust	5903 btu/min	
Prime Power (25%)	7.5 L/h	Heat to Radiation	428 btu/min	

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 $^{{}^*}Manufacturer\ reserves\ the\ right\ to\ make\ changes\ in\ model,\ technical\ specifications,\ color,\ equipment\ and\ accessories\ without\ prior\ notice.$





Alternator Data		Controller Data		
Manufacturer	Aksa	Manufacturer DSE		
Standards	BS EN 60034	Model 6020		
Control System	Self Excited.	Type Auto Mains Failure Control		
A.V.R.	SX460			
Voltage Regulation \pm 1,5 %		Controller Features & Benefits		
Insulation System	Class H	Microprocessor controlled		
Protection	IP22	License free PC Software		
Rated Power Factor	0.8	IP65 rating offers increased resistance to water ingress Front Panel Editing		
Stator Winding	Double La yer Concentric			
Winding Pitch	Two Thirds	Event log		
Winding Leads	12	Back-lit icon LCD display		
Telephone Interference	THF < 2 %	LED and LCD alarm indication		
Waveform Distortion	No Load < 1.5 %	Power save mode		
Maximum Over speed	2250 rev/min	PC and front panel configuration		
		Configurable timers and alarms		
Battery Charger & Electri	cal System Data	Alternative configuration		
Manufacturer	AKSA	Three phase generator monitoring		
Model	SmartGen BAC06A	Current monitoring and protection		
Input Voltage	100V ~ 250V AC			
Output Voltage / Current	27,6V DC / 3A	Power monitoring (kW, kVA, kVAr)		
		Reverse power (kW & kVAr) protection		
Jacket Water Heater Data		Three phase utility monitoring		
Manufacturer	AKSA	Test feature		
Model	HTR1500W 100-120F	Battery voltage monitoring		
Input Voltage	1 ph, based on gen voltage	Hours counter		
Power 1500W		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 2300 mm

Width 1100 mm

Height 1675 mm

Dry Weight 1570 kg

Tank Capacity 350 L

221 450 FORKLIFT LEG 6xØ18 6xØ18 669 162 638 162 2300

Enclosed Gen-Set Dimensions

Length 3269 mm

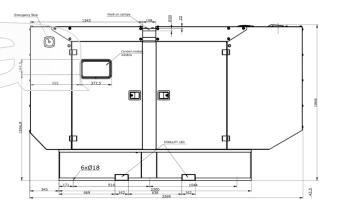
Width 1168 mm

Height 1866 mm

Dry Weight 2070 kg

Tank Capacity 350 L

Sound Pressure @ 7 meters 71 dB(A)



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Standard Features & Accessories **Optional Accessories** ✓ Heavy Duty Steel Base Frame ☐ Main Line CB (3 / 4 Poles) Integral Fuel Tank, Single Wall □ PMG **Fuel Drain Plug** □ Voltage Regulation $\pm 0.5\%$ w/MX321 AVR Control Panel Window ■ Anti-condensation Heater **Engine Jacket Water Heater** ■ 24 hours Capacity Base Fuel Tank **Battery and Battery Rack** ☐ Fuel Level Display & Alarm on Controller **Battery Charger** ■ Low / High Fuel Alarms Radiator fill cap on enclosure Fuel Water Separator Filter Anti Vibration Pads between Engine/Alternator & Base Frame Auto Fuel Fill Control System Residential Grade Silencer Inside Enclosure ☐ Oil Temperature Display on Controller Industrial Grade Silencer Set for Open Skid Sets ■ Manual Speed Adjust Rheostat Sound Absorb Foam for Enclosure ■ Manual Voltage Adjust Rheostat Air Inlet & Outlet Rodent Guards ☐ Remote Annunciator Panel Oil Drain Valve ☐ Remote Control & Monitoring Panel Coolant Drain Valve Advanced SMS Messaging Flex Fuel Lines Control Panel Heater ■ Battery Disconnect Switch Air Filter Restriction Gauge **Engine Manifold Cover** ■ Battery Heater **Turbocharger Cover** ■ 10A Battery Charger **Protection Covers for Rotating Parts** ■ Battery Charge Ammeter ☐ Tool Kit for Maintenance **Exhaust Insulation Cover** Control Panel Window Power Plug Outlet Kit **Operations Manual** ☐ Automatic Transfer Panel (ATS) – Contactor Design 24 Months / 2000 hours Limited Standby Warranty ☐ Automatic Transfer Panel (ATS) – Changeover Design

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