

Generator JP20

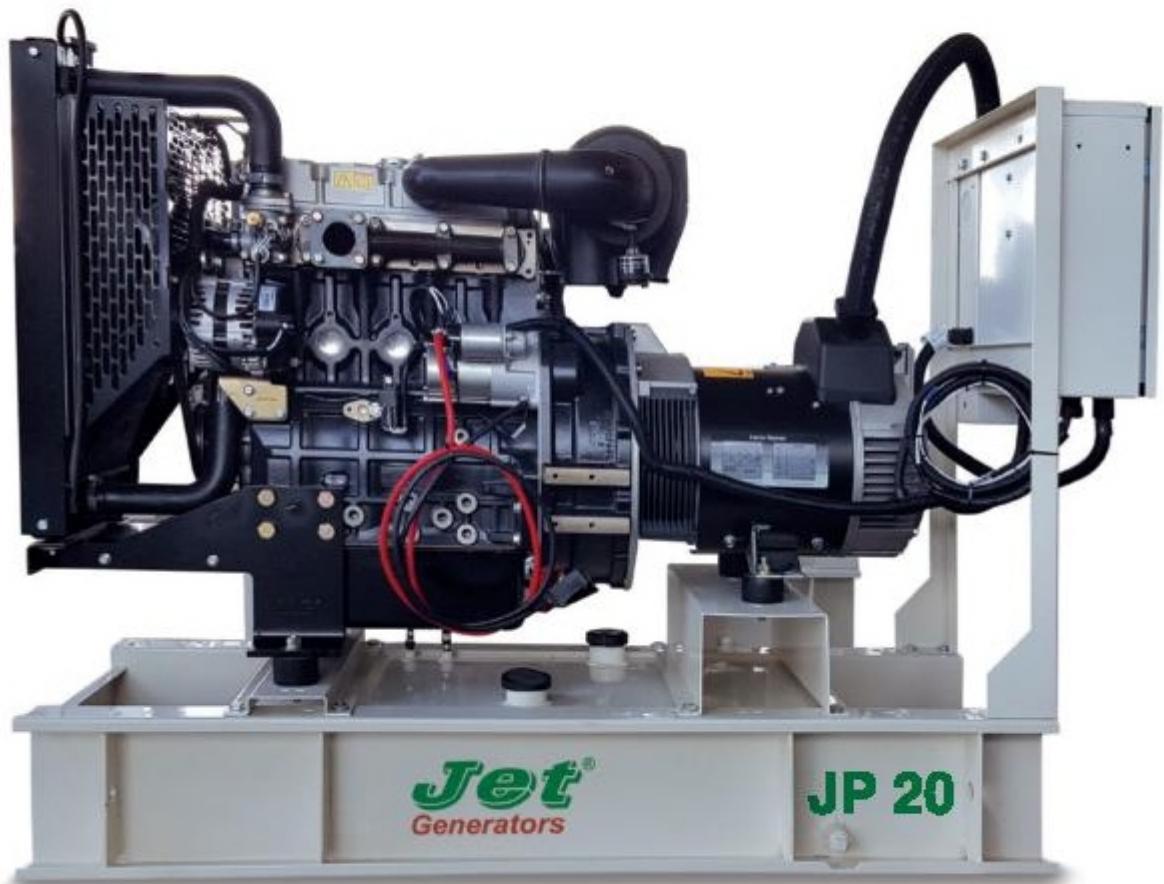
Description



POWERED BY:



Generating Set pictured may include optional accessories



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GENERATING SET MODEL (JP20)

Output Ratings

	Prime	Standby
400-415 V, 3 ph, 50 Hz, 1500 rpm	20 KVA	22 KVA
	16 KW	17.6 KW

Rating at 0.8 Power Factor

GENERATING SET MODEL (JP20)

Engine Make	Perkins
Engine Model	404A-22G1
Governing Type	Mechanical
Number of Cylinders	4
Cylinder Arrangement	Vertical in line
Bore and Stroke mm	84 x 100
Displacement / Cubic Capacity litres	2.216
Induction System	Naturally Aspirated
Cycle	4 stroke
System Combustion	Indirect Injection
Compression Ratio	23.3:1
Rotation	Anti-clockwise, viewed on flywheel
Cooling System	Water “ cooled
Frequency and Engine Speed	50Hz & 1500rpm

	Prime	Standby
Gross Engine Power KW (hp)	18.7 (25.1)	20.6 (27.6)
Fuel Consumption @ 50% load L/hr	2.9	
@ 75% load L/hr	4.0	
@ 100% load L/hr	5.3	6.1
Total Lubrication System Capacity litres	10.6	10.6
Total Coolant Capacity (Inc. radiator) litres	7.0	7.0
Exhaust Temperature: °C	445	505
Radiator Cooling Air Flow (Min): m³/sec	0.59	0.59
Combustion Air Flow: m³/min	1.45	1.45
Exhaust Gas Flow: m³/min	3.64	3.94

DIMENSIONS AND WEIGHT

Length cm	Width cm	Height cm	Weight* Kg (wet)	Fuel Tank Litres
149	52	112	533	51

STANDARD SPECIFICATIONS

1 â€“ ENGINE

Perkins four stroke heavy duty high-performance industrial type Diesel engine.

2 â€“ ENGINE FILTRATION SYSTEM

- Air filter
- Fuel filter
- Full flow lube oil filter

All filters have replaceable elements

3 â€“ COOLING RADIATOR

Radiator and cooling fan, complete with safety guards, designed to cool the engine at high ambient temperatures.

4 â€“ EXHAUST SYSTEM

Heavy Duty Industrial Exhaust Silencer:

Silencer noise reduction level: 20(dB)

Maximum Allowable Back Pressure: 10.2 (kPa)

5 â€“ CIRCUIT BREAKER TYPE

ABB 3 pole MCB. (4 pole is optional)

ALTERNATOR DATA

Make	Leroy Somer
Model	TAL040F
No. of bearings	1
Insulation class	H
Total Harmonic Content	at no load <3.5% â€“ on load < 5%
Ingress Protection	IP23
Excitation System	SHUNT

Winding Pitch	2/3
AYR Model	R120
Overspeed	2250 RPM
Voltage Regulation	± 1%
Short Circuit Capacity	“
AREP or PMG Excitation System Available as Optional	

CONTROL PANEL

Make Deep Sea

Model DSE6120

The DSE6120 is an Auto Start Control Module for single genset applications. It includes a backlit LCD display which clearly shows the status of the engine all the times. This module can either be programmed using the front panel or by using the DSE configuration suite PC software.

Metering and Alarm Indications:

- “ Generator frequency
- “ Underspeed, Overspeed
- “ Generator volts (L-L, L-N)
- “ Engine oil pressure
- “ Engine coolant temperature
- “ Fuel level (warning or shutdown) “ optional
- “ Hours run counter
- “ Battery volts
- “ Fail to start/stop
- “ Emergency stop
- “ Failed to reach loading voltage/frequency
- “ Charge fail
- “ Loss of magnetic pick-up signal “ optional
- “ Low DC voltage
- “ CAN diagnostics and CAN fail/error

ALL INSPIRED DESIGN TO MEET YOUR NEEDS

SOUND ATTENUATED AND WEATHER PROTECTIVE ENCLOSURE

Highly corrosion resistant construction:

- “ Highly quality locks and hinges
- “ Body made from galvanized steel components (2.0mm) treated with polyester powder coating.

Convenient access for maintenance:

“ Radiator fill access through cover in enclosure roof

“ Vertical hinged side door allowing 180° opening rotation

Transportability:

“ Tested and certified single point lifting facility.

“ Dragging points at base frame.

Security and safety:

- Control panel, viewing window and a lockable access door
- • Emergency stop push button fixed externally for quick access
- • Cooling fan and battery charging alternator fully guarded
- • Fuel fill and battery can only be reached via lockable access doors
- • Exhaust silencing system totally enclosed for operator safety

Sound pressure level:

- 80-85 dBA at 3 meters (standard)
- IP rating IP45

Dimension and Weight (Closed Type)

Length cm	Width cm	Height cm	Weight Kg	Fuel Tank Litres
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191	86	126.5	820	58
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AVAILABLE OPTIONS AND ACCESSORIES

We offer a range of optional features and accessories to tailor our generating sets to meet your power needs.

OPTIONS

- * A variety of generating set control and synchronizing panels
- * Additional protection alarms and shutdowns
- * Water fuel separator
- * Water jacket heater
- * Battery charger

ACCESSORIES

- * Genuine spare parts
- * Load banks
- * Auxiliary fuel tanks
- * Manual & automatic transfer switches

STANDARD SPECIFICATIONS

6. FUEL SYSTEM

On Generating Sets up to 700 KVA, the baseframe design is incorporated with an integral fuel tank with a capacity of approx. 8 hours running at Full Load. The tank is supplied complete with full cap breather, fuel feed and return lines to the Engine and drain plug.

7. ALTERNATOR

7.1 INSULATION SYSTEM

“ The insulation system is Class H.

“ All windings are impregnated in either a triple dip thermosetting liquid, oil and acid resisting polyester varnish or vacuum pressure impregnated with a special polyester resin.

“ Heavy coat of antitracking varnish additional protection against moisture or condensation.

7.2 AUTOMATIC VOLTAGE REGULATOR (AVR)

The fully sealed Automatic Voltage Regulator maintains the Voltage Regulation at 1% Nominal adjustment by means of a trim pot incorporated on the AVR.

7.3 MOTOR STARTING

An overload capacity equivalent to 300% of the Full Load impedance at zero Power Factor can be sustained for 10 seconds, when PMG option is fitted.

8. MOUNTING ARRANGEMENT

8.1 BASE FRAME

The complete Generating Set is mounted as a whole on a heavy duty fabricated steel Baseframe.

8.2 COUPLING

The Engine and Alternator are directly coupled by means of an SAE flange. The Engine flywheel is flexibly coupled to the. Alternator rotor.

8.3 ANTI-VIBRATION MOUNTING PADS

Anti-Vibration pads are affixed between the Engine/ Alternator feet and the Baseframe thus ensuring complete vibration isolation of the rotating assembly.

8.4 SAFETY GUARDS

The Fan & Fan Drive along with the Battery Charging Alternator are Safety Guard protected for personnel protection.

9. FACTORY TESTS

* The Generating set is load tested before dispatch

* All protective devices control functions and site load conditions are simulated, The generator and its systems are checked before dispatch.

10. EQUIPMENT FINISHING

All mild steel components are fully degreased and painted with powder coated paint to ensure maximum scuff resistance and durability.

11. DOCUMENTATIONS

Operation & Maintenance manual, Circuit wiring diagrams, and Commissioning / Fault Finding Instruction leaflets are accompanied with the Generator.

12. QUALITY STANDARDS

The equipment meets the following standards: BS4999, BS5000, BS5514, IEC 60034, VDE0530, NEMA MG 1 22 and ISO 8528

13. WARRANTY

All of the Generating Sets are covered under a warranty policy for a period of 12 months. Warranty of the equipment is in line with manufacturer's warranty terms & conditions.

In line with continuous product development, we reserve the right to change specifications without notice.