



 Perkins
Diesel Power LEROY SOMER

ENGINE



Generating Set pictured (open) may include optional accessories

GENERATING SET MODEL (JP180) Ratings at 0.8 Power Factor **Output Ratings** Prime Standby 380-415 V, 3 ph, 50 Hz, 1500 rpm 180.0 kVA 200.0 kVA 144.0 kW 160.0 kW

Prime Power These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. 10% overload power is available for 1 hour in 12 hours continuous operation.

Standby Power These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is

Output ratings are presented at 25°C air inlet temperature, barometric pressure 100 kPa, relative humidity 30%. This generating set is designed to operate at high ambient temperatures (up to 55°C), humidity (up to 99%) and higher altitudes. De-ration may apply, please consult your dealer for specific site ratings.

Some of the specifications are not standard on all Genset models

ENGINE / TECHNICAL DATA				
Engine Make & Model	Perkins 110	Perkins 1106A-70TAG3		
Governor Type	Mech	Mechanical		
Number of Cylinders & Arrangement	6 Vertica	6 Vertical in line		
Bore and Stroke mm	105 2	105 x 135		
Displacement / Cubic Capacity litres	7.	7.01		
Induction System	Turbocharged, air t	Turbocharged, air to air charge cooled		
Cycle	4 stroke			
Combustion System	Direct Injection			
Compression Ratio	16:5:1			
Rotation	Anti-clockwise, viewed on flywheel			
Cooling System	Water - cooled			
Frequency and Engine Speed	50Hz & ⁻	50Hz & 1500rpm		
	Prime	Standby		
Gross Engine Power kW (hp)	168.8 (226.36)	185.7 (249.02)		
Fuel Consumption @ 50% load L/hr	18.8	-		
@ 75% load L/hr	30.7	-		
@ 100% load L/hr	39.6	43.7		
Total Lubrication System Capacity litres	18	18		
Total Coolant Capacity (inc. radiator) litres	20.5	20.5		
Exhaust Temperature: °C	487	487		
Radiator Cooling Air Flow (Min): m ³ /sec	3.06	3.06		
Combustion Air Flow: m ³ /min	12.74	13.45		
Exhaust Gas Flow: m3/min	30.37	32.28		

DIMENSIONS AND	WEIGHT (OPEN TYP	Ε)		
Length cm	Width cm	Height cm	Weight kg (wet)	Fuel Tank litres
257	90	148	1702	261
				wet weight = with lube oil and coolant

STANDARD SPECIFICATIONS

Perkins four stroke heavy duty high performance industrial type diesel engine.

2. ENGINE FILTRATION SYSTEM

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

All filters have replaceable elements.

3. COOLING RADIATOR

Radiator and cooling fan, complete with safety guards, designed to cool the engine at high ambient temperatures (consult your dealer for de-ration factors)

4. EXHAUST SYSTEM

Heavy duty Industrial Exhaust Silencer

Silencer noise reduction level	12 (dB)
Maximum allowable back pressure	6.0 (kPa)

5. CIRCUIT BREAKER TYPE

ABB 3 pole MCCB. (4 pole is optional)

ALTERNATOR DATA	
Make	Leroy Somer
Model	TAL 046A / TAL 044L
No. of bearings	1
Insulation class	Н
Total Harmonic Content	at no load <2.5% / <2% at linear load <5% / <5%
Ingress Protection	IP23
Excitation System	SHUNT
Winding Pitch	2/3
AVR Model	R150 / R120
Overspeed	2250 min-1
Voltage Regulation (steady)	± 0.8% / ± 1%
Short Circuit Capacity	-

AREP & PMG Excitation System Available as Optional.

CONTROL PANEL (STANDARD)
Make	Deep Sea
Model	DSF6120

The DSE6120 MKIII is an Auto Mains (Utility) Failure Control Module suitable for a wide variety of single diesel or gas 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)
- Generator current 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











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SOUND ATTENUATED AND WEATHER PROTECTIVE ENCLOSURE

ROBUST /HIGHLY CORROSION RESISTANT CONSTRUCTION:

- Stainless steel locks and hinges
- Body made from galvanized steel components (2.0mm) treated with polyester powder coating

CONVENIENT ACCESS FOR MAINTENANCE:

- Full length extra wide doors on each side
- Radiator fill access plate
- Vertical hinged side door 180° opening rotation
- Back door option also available

TRANSPORTABILITY:

- Tested and certified single point lifting facility
- Dragging points at base frame

SECURITY AND SAFETY:

- Control panel viewing window in a lockable access door
- Emergency stop push button (red) 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

Customized enclosures with reduced Sound Pressure Levels available on demand

DIMENSIONS AND WEIGHT (CLOSED TYPE)

	<u> </u>			
Length cm	Width cm	Height* cm	Weight kg (wet)	Fuel Tank liter
390	111	187	2310	320

*Excluding 100mm for the extension of the exhaust pipe and 100mm for center lifting point

AVAILABLE OPTIONS & 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 seperator
- Water jacket heater
- Battery charger

ACCESSORIES

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

For further information on all of the standard and optional features accompanying this product please contact your local dealer or visit www.JubailiBros.com All information in this document is substantially correct at time of printing and may be altered subsequently.

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AN INSPIRED DESIGN TO MEET YOUR NEEDS

STANDARD SPECIFICATIONS

6. FUEL SYSTEM

On Generating Sets up to 650 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 fill cap breather, fuel feed and return lines to the Engine and drain plug.

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 \pm 0.8% / \pm 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 it's 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

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 manufacturers warranty terms & conditions

(check warranty statement for more details, as it may vary for different countries)

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