# A.R.JUBAILI&CO



# J650 KVA Genset

Output Ratings		
Generating Set Model	Prime	Standby
380-415 V, 3ph, 50 Hz, 1500rpm	650 kVA	700 kVA
	520 KW	560 KW

## **Rating Defenitions**

## **Prime Power - Model J650**

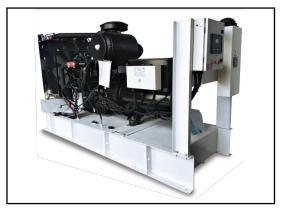
These ratings are applicable for supplying continuous electrical power in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply %10 overload power for 1 hour in 12 hours.

## Standby Power - Model J650

These ratings are applicable for supplying continuous electrical power in event of a utility power failur. No overload is permitted on these ratings. The alternator on this model is peak continuous rated.

ALTERNATOR DATA	
Make	Leroy Somer
Model	LSA49.3S4 / TAL047F
No. of bearings	1
Insulation class	Н
Total Harmonic Content	at no load <3.5% - on load <5%
Wires	6
Ingress Protection	IP23
Excitation System	SHUNT
Winding Pitch	2/3 (nº6)
AVR Model	R450M/R150
Overspeed	2250 mn <sup>-1</sup>
Voltage Regulation (steady)	± 1%
Short Circuit Capacity	-

PMG Excitation System Available as Optional.



Generating set picture may include optional accessories

ENCINE / TECHNICAL DATA		
ENGINE / TECHNICAL DATA		
Engine Make	Perkins	
Engine Model	2806A-E18TAG2	
Governing Type	ISO 8528-5 G2	
Number of Cylinders	6	
Cylinder Arrangement	Vertical in line	
Bore and Stroke mm	145 x 183	
Displacement / Cubic Capacity litres	18.1	
Induction System	Turbocharged and air to air charge cooled	
Cycle	4 stroke	
Combustion System	Direct Injection	
Compression Ratio	14.5:1	
Rotation	Anti-clockwise, viewed on flywheel	
Cooling System	Water - cooled	
Frequency and Engine Speed	50Hz & 1500rpm	
	Prime	Standby
Gross Engine Power kW (hp)	584 (783)	628 (842)
Fuel Consumption @ 50% load L/hr	66	-
@ 75% load L/hr	97	-
Fuel Consumption @ 50% load L/hr	132	143
Total Lubrication System Capacity litres	62	62
Total Coolant Capacity (inc. radiator) litres	61	61
Exhaust Temperature: °C	555	553
Radiator Cooling Air Flow (Min): m3/sec	10.1	10.1
Combustion Air Flow: m3/min	37	40
Exhaust Gas Flow: m3/min	106	114
Fuel Tank Capacity: litres	715	715

Note: 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.

Dimensions and Weights				
Length cm	Width cm	Height cm	Weight* kg (wet)	
375	155	225	4929	

# Standard Specifications

Perkins four stroke heavy duty high performance industrial type diesel engine

## 2. ENGINE FILTRATION SYSTEM

- Cartridge Type dry air filter
- Cartridge Type fuel air filter
- Full flow lube oil filter

All filters have replaceable elements

## 3. COOLING RADIATOR

Radiator and cooling fan, designed to cool the engine at high ambient

## 5. CIRCUIT BREAKER TYPE

ABB 3 pole MCCB (4 pole is optional)

Heavy duty Industrial Exhaust Silencer

Maximum allowable back pressure

Silencer noise reduction level

Perkins four stroke heavy duty high performance industrial type diesel engine

- 6.1 INSULATION SYSTEM
- · The insulation system is Class H.
- · All windings are impregnated in either triple dip thermosetting liquid, oil and acid resisting polyester vanish or vacuum pressure impregnated with a special polyester resin.
- Heavy coat of antitracking vanish additional protection against moisture or condensation.

## 6.2 AUTOMATIC VOLTAGE REGULATOR (AVR)

The fully sealed Automatic Voltage Regulator maintains the Voltage Regulation at + - 0.5%. Nominal adjustment by means of a trim pot incorporated on the AVR.

## 6.3 MOTOR STARTING

An overload capacity equivalent to 300% of the full Load. Impedance at Zero Power Factor can be sustained for 10 seconds, when AREO or PMG

## 7. MOUNTING ARRANGEMENT

## 7.1 BASE FRAME

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

7.2 COUPLING

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

## 7.3 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

### 7.4 SAFETY GUARDS

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

## 8. 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

## 9. EQUIPMENT FINISHING

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

## 10. DOCUMENTATIONS

Operation & Maintenance manual, circuit wiring diagrams and Commissioning / Fault finding instruction leaflets are accompanied with the Generator.

## 11. QUALITY STANDARDS

The equipment meets the following standards: BS4999, BS5000, BS5514 IEC 60034, VdE0530, NEMA MG 1,22 and ISO 8528,

## 12. 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

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

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

# **Generating Set Options**

## Engine

- · Electronic Governor
- · Manual Oil Drain Pump
- · Coolant Heater and Thermostat
- Exhaust Temperature Monitoring

## Alternator

- · Alternator Space Heater
- · Auxiliary Winding

## Cooling system

- · Remote Radiator Cooling
- · Hot and Fresh Air Ducting

## **Exhaust Options (open unit)**

- Exhaust Silencer Residential
- (Noise Attenuation 25-18 dBA)
- Exhaust Silencer Critical (Noise Attenuation 34 - 25 dBA)

# **Fuel options**

- · Fuel Water Separator
- · Free Standing fuel tank delivered loose
- Bundled Retention Tank
- · Manual and/or automatic fuel pump
- Fuel Tank Level Switch
- · High Fuel Level Warning
- · Low Fuel Level Warning
- · Low fuel Level Shutdown

## **Electrical System**

- · Battery Charger 240 V/12 V, 10 A
- Analog Metering
- 4 Pole Circuit Breaker · Battery Isolator Switch
- · Automatic Mains Failure Kit
- Manual & Automatic Transfer Switch Panel
- · PMG Kit.
- · Load Bank

## **Enclosed unit**

- · Weather Proof Enclosure
- Sound Proof Enclosure
- Room Insulation
- · Sand filters for tropical climate

14 (dB)

6.9 (kPa)

## **Voltage Connections**

- 440 / 254 V
- 416 / 240 V
- 400 / 230 V
- 380 / 220 V
- 220 / 127 V • 200 / 115 V
- 190 / 110 V

## Genuine spares

For further information on all of the standard and optional features accompanying this product please contact your local dealer or visit www.Jubaili.com



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