

# **ENGINE** Perkins Diesel Power







Generating Set pictured (open) may include optional accessories

GENERATING SET MODEL (JP700)	Ratings at 0.8 Power Factor		
Output Ratings	Prime	Standby	
380-415 V, 3 ph, 50 Hz, 1500 rpm	706.0 kVA	780.0 kVA	
	564.8 kW	624.0 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

### STANDARD REFERENCE CONDITIONS

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 2806	Perkins 2806A-E18TTAG4		
Governor Type	Elect	tronic		
Number of Cylinders & Arrangement	6 Vertic	al in line		
Bore and Stroke mm	145	145 x 183		
Displacement / Cubic Capacity litres	18	18.1		
Induction System	Turboo	Turbocharged		
Cycle	4 st	4 stroke		
Combustion System	Direct Injection			
Compression Ratio	14	14:1		
Rotation	Anti-clockwise, viewed on flywheel			
Cooling System	Water - cooled			
Frequency and Engine Speed	50Hz & 1500rpm			
	Prime	Standby		
Gross Engine Power kW (hp)	623 (835)	685 (918)		
Fuel Consumption @ 50% load L/hr	76	-		
@ 75% load L/hr	108	-		
@ 100% load L/hr	145	160		
Total Lubrication System Capacity litres	68	68		
Total Coolant Capacity (inc. radiator) litres	109.5	109.5		
Exhaust Temperature: °C	461	465		
Radiator Cooling Air Flow (Min): m <sup>3</sup> /sec	14.2	14.2		
Combustion Air Flow: m <sup>3</sup> /min	52	57		
Exhaust Gas Flow: m <sup>3</sup> /min	119	128		
Fuel Tank Capacity: litres	NOT AVAILABLE	NOT AVAILABLE		

DIMENSIONS AND WEIGHT ( OPEN TYPE )			
Length cm	Width cm	Height cm	Weight* kg (wet)
360	169	230	5180

## STANDARD SPECIFICATIONS

### 1. ENGINE

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	14 (dB)
Maximum allowable back pressure	10.0 (kPa)

### 5. CIRCUIT BREAKER TYPE

ABB 3 pole MCCB (4 pole is optional)

ALTERNATOR DATA		
Make	Leroy Somer	
Model	TAL 049B	
No. of bearings	1	
Insulation class	Н	
<b>Total Harmonic Content</b>	at no load <3.5% at linear load <5%	
Ingress Protection	IP23	
Excitation System	SHUNT	
Winding Pitch	2/3	
AVR Model	R150	
Overspeed	2250 mn <sup>-1</sup>	
Voltage Regulation (steady)	± 1%	
Short Circuit Capacity	-	

PMG Excitation System Available as Optional.

CONTROL PANEL (STANDARD)		
Make	Deep Sea	
Model	DSE6110	

The DSE6110 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 frequencyUnderspeed, 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

se refer to DSE6110 broch

- · Loss of magnetic pick-up signal Optional Low DC voltage
- · CAN diagnostics and CAN fail/error





wet weight = with lube oil and coolant







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### SOUND ATTENUATED AND WEATHER PROTECTIVE CONTAINERS - 20' ISO CTR

### **SALIENT FEATURES:**

- · Lockable external fuel filling point
- Internal /External fuel connection
- External oil drainage
- · External coolant drainage
- Air inlet /outlet louvers
- Sound splitters at radiator side (only for 1000 KVA and above) (For 700-880 KVA vertical air discharge)
- Common earth connection
- 2 layers white color paint
- · Cooling fan and battery charging alternator fully guarded
- . Engine, radiator, fuel fill and battery can only be reached via lockable access doors

### **CONVENIENT ACCESS FOR MAINTENANCE:**

- Original CTR main door as access for operation
- Two doors one large door on each side (700-880 kVA)
- Two doors in one side and one door in the other side (1000-2500 kVA)
- · Lockable doors with emergency opening pusher from inside
- . Internal 3-4 lights
- · Emergency light on top of the door

## TRANSPORTABILITY:

- · Lifting points on the top and bottom corners of the containers
- Standard forklift pockets (700-880 kVA)

### SOUND PRESSURE LEVEL:

• 80 - 85 dBA at 3 meters (standard)

Customized containers with reduced Sound Pressure Levels available on demand

DIMENSIONS AND W	/EIGHT ( CLOSED TYPE )	)		
Length cm	Width cm	Height* cm	Weight kg (wet)	Fuel Tank liter
600	232	260	10880	NOT AVAILABLE

\*Excluding 120cm for the silencer on top

## **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 visitwww.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 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 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  $\pm 1\%$ . 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.