# JP600

# **Perkins**<sup>®</sup>



GENERATING SET MODEL (JP600)			
Output Ratings	Prime	Standby	
380-415 V, 3 ph, 50 Hz, 1500 rpm	600 KVA	660 KVA	
	480 KW	528 KW	
480 V, 3 ph, 60 Hz, 1800 rpm	625 KVA	687 KVA	
	500 KW	550 KW	

Alternators ratings may change at different voltages.			Rating	s at 0.8 Power Factor
ENGINE / TECHNICAL DATA	ı			
Engine Make	Perkins			
Engine Model	2806A-E18TAG1A			
Governing Class	ISO 8528-5 G2			
Number of Cylinders	6			
Cylinder Arrangement	Vertical in line			
Bore and Stroke mm	145 x 183			
<b>Displacement / Cubic Capacity litres</b>	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 60Hz & 1800rpm		1800rpm	
	Prime	Standby	Prime	Standby
Gross Engine Power kW (hp)	540 (724)	593 (795)	568 (762)	623 (835)
Fuel Consumption @ 50% load L/hr	61	-	66	-
@ 75% load L/hr	90	-	95	-
@ 100% load L/hr	123	134	127	141

DIMENSIONS AND WEIGHT					
Length cm	Width cm	Height cm	Weight* kg (wet)		
384	153.5	223	4700		
* For skid mounted genset with	out enclosure		wet weight = with lube oil and coolan		

62

61

2.81

568

11.7

34

96

654

62

61

3.07

571

11.7

36

104

654

62

61

2.97

481

14.2

43

109

654

62

61

3.18

489

14.2

45

118

654

# \* For skid mounted genset without enclosure

**Total Lubrication System Capacity litres** 

Radiator Cooling Air Flow (Min): m<sup>3</sup>/sec

**Total Coolant Capacity litres** 

Combustion Air Flow: m³/min

Exhaust Gas Flow: m3/min

Fuel Tank Capacity: litres

**Boost Pressure Ratio** 

**Exhaust Temperature: °C** 

# STANDARD SPECIFICATIONS

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

# 2. ENGINE FILTRATION SYSTEM

- Cartridge type dry air filter.
- Two Cartridge type fuel filters.
- Full flow lube oil filter.

All filters have replaceable elements.

### **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	6.8 (kPa)	

# 5. CIRCUIT BREAKER TYPE

3 pole ACB / MCCB (supplied disconnected and without cables)\*

(contd.)

ALTERNATOR DATA	
Make	Leroy Somer
Model	TAL 047E
No. of bearings	1
Insulation class	Н
<b>Total Harmonic Content</b>	<3.5% on load
Wires	6
Ingress Protection	IP23
<b>Excitation System</b>	SHUNT
Winding Pitch	2/3 (n° 6)
AVR Model	R150
Overspeed	2250 mn <sup>-1</sup>
Voltage Regulation (steady)	± 1%
Short Circuit Capacity	-

AREP & PMG Excitation System Available as Optional.

CONTROL PANEL	
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 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

(Please refer to DSE6110 brochure for more details)





# **POWERED BY:**





### **RATINGS DEFINITION**

### **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 permitted on these ratings.

# 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.

# **AVAILABLE OPTIONS & ACCESSORIES**

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

- 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

Distributed and Serviced by:



For further information on all of the standard and optional features accompanying this product please contact info@beever.com



JET Generators are assembled in facilities certified to ISO 9001 All information in this document is substantially correct at time of printing and may be altered subsequently.

# STANDARD SPECIFICATIONS

AN INSPIRED DESIGN TO MEET YOUR NEEDS

### 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.

### 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 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 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 manufacturers warranty terms & conditions.

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