



# **Diesel**





INDUSTRIAL RANGE

**Powered by Perkins** 













# **Generating Rates**

POWER RATING		PRIME	STANDBY	
POWER	kVA	569	626	
	kW	455	501	
Rated Speed	r.p.m	1800		
Standard Voltage	V	480		
Available Voltages	V	480/277-440/254-220/127-208/120		
Rated at power factor	Cos Phi	0.8		

**Ambient conditions of reference:** 1000 mbar, 25°C, 30% relative humidity. Power according to ISO 3046 normative.

**P.R.P. Prime Power - ISO 8528**: prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during a 24 hours period shall not exceed 80% of the prime power. 10% overload available forgoverning purposes only.

**Standby Power (ISO 3046 Fuel Stop power):** power available for use at variable loads for limited annual time (500h), within the following limits of maximum operating time: 100% load 25h per year – 90% load 200h per year. No overload available. Applicable in case of failure of the main in areas of reliable electrical network.





# **Diesel Generating Sets**





Model: ETPG626
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# **Engine Specifications 1800 r.p.m.**

ENGINE		PF	RP	STAN	NDBY
Rated Output	kW	495 543			43
Manufacturer		Perkins			
Model		2506C-E15TAG3			
No. of Cylindirs and Build		4 Cycle; 6 Vertical In-line			
Aspiration and Cooling		Turbocharged air-to-air charge cooled			
Bore/Stroke	mm	137X171			
Compress the ratio		16:1			
Cooling system		Water-cooled			
Engine Speed/Frequency	rpm/Hz	1800/60HZ			
Coolant Capacity	L	58			
Starting System		Electric 24 volt DC			
Displacement	L	15.2			
Lubricant system Capacity	L	60			
Battery Volatge / Capacity		24VDC			
Governing Type	Type	ECM			
Air Filter	Type	Dry			
Fuel Consumption	Load	100%	75%	50%	25%
	L/h	121.0	96.0	77.0	38.5

**ENGINE**--Industrial 4 stroke cooled diesel engine complete with air, fuel and oil filters, electric starting and charging equipment, engine protection against low water level.

**COOLING**--Radiator and colling fan complete with protection guards,designed to cool engine at specified output in air temperatures upto 45 °C,radiators suitable for higher temperatures are available.Low water level protection fitted as standard.

**ELECTRICAL SYSTEM**--24V upto. Axial type starter motor, battery charging alternator, high capacity lead acid battery, and battery tray mounted on the generator base frame, and heavy duty interconnecting cable with terminations.

**EXHAUST SYSTEM-**-Heavy duty industrial exhauset silencer with flexible piping.





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# **Alternator Technical Specifications**

ALTERNATOR BRAND		LEROY SOMER	STAMFORD	
Model		LSA47.2M7	HCI544D	
Exciter System		Self-excited, brushless		
Poles	Num	4		
Cooling Fan		Cast alloy aluminum		
Bearing		Single,double shielded		
Windings		100% copper		
Connection Type		Reconnectable		
Insulation Type	Class	Class H		
Pitch		2/3		
Amortisseur Winding		Full		
Voltage Regulator		A.V.R. (Electronic)		
Steady Voltage Precision		± 1%		
Underspeed Protection		Standard		
Overexcitation Protection		IP23		
TIF (1960 Weightings)		<50		

**ALTERNATOR**--Brushless,self exciting,self regulation,sreen protected,drip proof rated in accordance with IEC60034.Voltage regulation maintainted within ±0.5% from no load to full load.between 0.8 lagging and unity.All standard voltages available.



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# **Control Panel Technical Specifications**

#### Control Panel-SMARTGEN 6110/6120

The base mounted control panel in a vibration isolated sheet steel enclosure. The control panel is equipped as follows:

- a)Instruments:Analogue Volmeter, Hours Run Meter. Water pressure Meter.
- b) Controls: Emergency Stop Pushbutton, Volmeter Phase Selector Switch.
- c) Control module: Standard collocation is smartgen Auto start with AMF.



#### **Main Features:**

ΔAutomatic mains failure

ΔEngine control, Generator protection

ΔBuilt in alarms and warnings

ΔRemote Start operation available

ΔFuel pump control

ΔMains simulation

ΔBlock heater control

ΔField adjustable parameters

ΔFree MS-Windows Remote monitoring

ΔLED displays

ΔConfigurable analogue inputs

ΔI/O expansion capability

# 

#### **Protection Circuits**

**WARNING** 

Battery charge failure

Low battery voltage

SHUT DOWNS

Fail to start

**Emergency stop** 

Low oil pressure

High engine temperature

Over /Under speed

Under/over generator frequency

Failed to reach loading voltage

Electrical trip

Generator over current

#### Instruments

**ENGINE** 

Engine speed

Oil pressure

Coolant temperature

Run time

Battery volts

TOR

Voltage (L-N)

Current (L1-L2-L3)

Frequency

Mains

Voltage (L-L, L-N)



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# Generating Sets Standard Features

Three phase four wire, output voltage 480V/277V,60HZ, between 0.8 lagging, protection capability according with the standard of NAME1 and IP23.

#### **General Features:**

ΔComposed of Perkins diesel engine and Stamford or Leroy somer alternator

ΔOil and fuel filter fitted, water separator

ΔLube-oil drain valve fitted

ΔElectric Starter Charge motor 24 VD.C

ΔWater-cooled

Δ8-hours operation base tank

Δ Auto start

ΔOptional soundproof and weatherproof canopy

Δ3 pole MCCB Delixi breaker

ΔOperation & Maintenance manual

ΔSpecial Integrated Steel Base tank and sprayed overall in gloss enamel paint

#### **Voltage Regulation:**

Voltage regulation maintanined within ±0.5%

Between 0.8 and 1.0 lagging and unity

From no load to full load

At speed droop variation upto 4.5%

#### **Frequency Adjustable Ratio:**

Change load from 0-100%, within 1.0% (electric speed regulator), within 4.5% (mechanical speed regulator)

#### **Frequency Undulation:**

load from 0-100%, frequency undulation within 0.25%

No load wire volts max undulation ration\ within 1.8%

Three Phrase balanced load in the order of 5%

Effect factor of Telecom

TIF better than 50

THF to IEC60034 Part 40 better than 2%



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# Soundproofed Version Features

#### Robust Corrosion Resustant Construction

Δ Black finish stainless stell lock and hinges

Δ Body made from steelcomponents treated with polyester powder coating

#### **Excellent Access for Maintenance**

Δ Two large doors on each side

Δ Radiator fill access plate

Δlube oil and cooling water drains pipes to exterior of the enclosure

#### **Security and Safety**

Δ Control panel viewing window in a lockable access door

Δ Emergency stop push buttom (red)mounted on enclosure interior

Δ Cooling fan and battery charging alternator fully guarded

Δ Exhaust silencing system totally enclosed for operator safely





## **Diesel Generating Sets**



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# **Generating Sets other Features**

#### **Generating Sets Optional Features**

ΔLow fuel level alarm shutdown

ΔAutomatic Fuel Filling System

ΔEngine oil feeding and drain pump

ΔAuto Transfter Switch( ATS)

ΔParallel control panels

ΔCircuit Breaker MCCB & ACB

ΔRemote Control Panel

Δweatherproof/soundproof Canopy

ΔTrailer type Gensets

#### **Quality Standards**

ISO9001:2000,ISO14000,ISO3046

ISO8528 BS4999

BS5514,AS1359,ICE34

**CE** Compliance

## Gensets Dimensions & Weight

Open type:LxWxH (mm) Net Weight Kgs

3935\*1150\*2080/3691KGS

Silent type:LxWxH (mm) Net Weight Kgs

5230\*1380\*2280/5330KGS

#### **Authorized**

