



Diesel

Watercooled



Model: ETPG36 INDUSTRIAL RANGE Powered by Perkins









Generating Rates

POWER RATING		PRIME	STANDBY	
POWER	kVA	33	36	
	kW	26.5	29	
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





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Engine Specifications 1800 r.p.m.

ENGINE		PF	RP	STAN	NDBY
Rated Output	kW	30.5 34			4
Manufacturer		Perkins			
Model		1103C-33G2			
No. of Cylindirs and Build		4 Cycle; In-line; 3 Cylinder Diesel			
Aspiration and Cooling		Natural Aspiration			
Bore/Stroke	mm	105X127			
Compress the ratio		19.25:1			
Cooling system		Water-cooled			
Engine Speed/Frequency	rpm/Hz	1800/60HZ			
Coolant Capacity	L	10.1			
Starting System		Electric 12 volt DC			
Displacement	L	3.3			
Lubricant system Capacity	L	7.4			
Battery Volatge / Capacity		12VDC			
Governing Type	Туре	Mechanical			
Air Filter	Туре	Dry			
Fuel Consumption	Load	100%	75%	50%	25%
	L/h	9.1	7.1	4.9	3.2

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--12V 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		LSA42.2M7	PI144G	
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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Smartgen[®]

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 failureΔEngine control,Generator protectionΔBuilt in alarms and warningsΔRemote Start operation availableΔFuel pump controlΔMains simulationΔBlock heater controlΔField adjustable parametersΔFree MS-Windows Remote monitoringΔLED displaysΔConfigurable analogue inputsΔI/O expansion capability

Smartgen*

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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Soundproofed Version 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 alternatorΔOil and fuel filter fitted, water separatorΔLube-oil drain valve fittedΔElectric Starter Charge motor 12 VD.CΔWater-cooledΔ8-hours operation base tankΔ Auto startΔOptional soundproof and weatherproof canopyΔ3 pole MCCB Delixi breakerΔOperation & Maintenance manualΔSpecial 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

 Δ lube 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





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Generating Sets other Features

Generating Sets Optional Features

ΔLow fuel level alarm shutdownΔAutomatic Fuel Filling SystemΔEngine oil feeding and drain pumpΔAuto Transfter Switch(ATS)ΔParallel control panelsΔCircuit Breaker MCCB & ACBΔRemote Control PanelΔweatherproof/soundproof CanopyΔTrailer type Gensets

Quality Standards

ISO9001:2000,ISO14000,ISO3046 ISO8528 BS4999 BS5514,AS1359,ICE34 CE Compliance

Open type:LxWxH (mm) Net Weight Kgs 1740*730*1565 ,762kgs Slient type:LxWxH (mm) Net Weight Kgs 2330*1110*1830, 1300kgs

Authorized

