

POWERED BY PERKINS DIESEL GENERATOR SET



Diesel





Powered by Perkins



Watercooled









Generating Rates

POWER RATING		PRIME	STANDBY	
POWER	kVA	33	36	
FOWER	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.



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Model: ETPG36
INDUSTRIAL RANGE
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Engine Specifications 1800 r.p.m.

ENGINE		PF	RP	STA	NDBY
Rated Output	kW	30.5		3	34
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 $^{\circ}$ 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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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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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 alternator

ΔOil and fuel filter fitted, water separator

ΔLube-oil drain valve fitted

ΔElectric Starter Charge motor 12 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





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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

Open type:LxWxH (mm) Net Weight Kgs

1740*730*1565,762kgs

Slient type:LxWxH (mm) Net Weight Kgs

2330*1110*1830, 1300kgs

Authorized

