

# GPW35Y



## Main Features

Frequency	Hz	50
Voltage	V	400
Power factor	cos $\phi$	0.8
Phase		3

## Power Rating

Standby power LTP	kVA	38.00
Standby power LTP	kW	30.40
Prime power PRP	kVA	35.00
Prime power PRP	kW	28.00

### Ratings definition (According to standard ISO8528 1:2005)

#### PRP - Prime Power:

It is defined as being the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output over 24 h of operation shall not exceed 70 % of the prime power.

#### LTP - Limited-Time running Power:

It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 h of operation per year (whose no more than 300 for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

## Engine specifications

Engine manufacturer	Yanmar	
Model	4TNV98-IGPGE	
[50Hz] Exhaust emission level	Stage IIIA	
Engine cooling system	Water	
Nr. of cylinder and disposition	4 in line	
Displacement	cm <sup>3</sup>	3319
Aspiration	Natural	
Speed governor	Mechanical	
Prime gross power PRP	Kw	32.9
Maximum gross power LTP	kW	34.6
Oil capacity	l	10.5
Coolant capacity	l	4.2
Fuel	Diesel	
Specific fuel consumption @ 75% PRP	g/kWh	231
Specific fuel consumption @ PRP	g/kWh	231
Starting system	Electric	
Starting engine capability	kW	1.1
Electric circuit	V	12



## Engine Equipment

### Standards

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS 5514/1

### Fuel system

- Direct injection system
- Fuel filter paper element
- Fuel pump Bosch in-Line

### Lube oil system

- Forced feed system
- Trochoid pump
- Paper element lube oil filter

### Induction system

- Mounted air filter

### Cooling system

- Thermostatically-controlled system with gear-driven circulation pump and belt-driven pusher fan
- Mounted radiator and piping

## Alternator Specifications

Alternator		Mecc Alte
Model		ECP32-2S
Voltage	V	400
Frequency	Hz	50
Power factor	$\cos \phi$	0.8
Type		Brushless
Poles		4
Standard AVR		DSR
Voltage tolerance	%	1
Efficiency @ 75% load	%	88.7
Class		H
IP protection		23

### Mechanical structure

Robust mechanical structure which permits easy access to the connections and components during routine maintenance check-ups.

### Voltage regulator

Voltage regulation with DSR. The digital DSR controls the range of voltage, avoiding any possible trouble that can be made by unskilled personnel. The voltage accuracy is  $\pm 1\%$  in static condition with any power factor and with speed variation between 5% and +30% with reference to the rated speed.

### Windings / Excitation system

Generator stator is wound to 2/3 pitch. This eliminates triplen (3rd, 9th, 15th ...) harmonics on the voltage waveform and is found to be the optimum design for troublefree supply of non-linear loads. The 2/3 pitch design avoids excessive neutral currents sometimes seen with higher winding pitches. MAUX (Standard): The MAUX MeccAlte Auxiliary Winding is a separate winding within the main stators that feeds the regulator. This winding enables to take an overload of 300% forced current (short circuit maintenance) for 20 seconds. This is ideal for motor starting requirements.

### Insulation / Impregnation

Insulation is of class H standard. Impregnation is made with premium tropicalised epoxy resins by dipping and dripping. High voltage parts are impregnated by vacuum, so the insulation level is always very good. In the high-power models, the stator windings undergo a second insulation process. Grey protection is applied on the main and exciter stator to give enhanced protection.

### Reference standards

Alternator manufactured according to , and complies with , the most common specification such as CEI 2-3, IEC 34-1, EN 60034-1, VDE 0530, BS 4999-5000, CAN/ CSA-C22.2 No14-95-No100-95.



## Genset equipment

### FULLY BUNDED BASEFRAME, COMPLETE WITH:

- Integrated fork pockets and pull bar for easy maneuverability and site positioning.
- Heavy duty base RAL9005B guarantees the highest standards of durability and resistance.



### METAL FUEL TANK WITH THE FOLLOWING COMPONENT:

- Floating gauge close to filler point
- Leakage sensor must be fixed and separately connected to the AC03
- Provide with inspection hatch of 4" on alternator side.
- Tank without drain point as for baseframe.



### ENGINE COMPLETE WITH:

- Battery
- Liquids (no fuel)

### CANOPY:

- Soundproof canopy made up of modular panels, realized with zinc-coated steel as treatment against corrosion and aggressive conditions, properly fixed with rivets and sealed allowing a full weatherproof enclosure.
- Exhaust silencer integrated in the genset shape with flat rain flap.
- Easy access to the genset for maintenance purposes thanks to: Wide lateral access doors fixed by stainless steel hinges and provided with plastic lockable handles.
- Control panel protection door provided with suitable window and lockable handle.
- Detachable lifting bridge with 4" hole placed on the roof.



### SOUNDPROOF:

- Noise attenuation thanks to soundproofing material
- Soundproofing by means washable and fireproof soundproofing material.
- Efficient residential silencer placed inside the canopy



### Dimensional data

Length	(L) mm	2280
Width	(W) mm	980
Height	(H) mm	1850
Dry weight	Kg	1385
Fuel tank capacity	l	370
Fuel tank material		Metal

### Autonomy

Fuel consumption @ 75% PRP	l/h	5.82
Fuel consumption @ 100% PRP	l/h	7.75
Running time @ 75% PRP	h	63.57
Running time @ 100% PRP	h	47.74

### Noise level

Guaranteed noise level (LWA)	dB(A)	90
Noise pressure level @ 1 m	dB(A)	72.6
Noise pressure level @ 7 m	dB(A)	61.0

### Electrical Data

Battery capacity	Ah	100
MAX current	A	54



## ACP - Automatic control panel

Mounted on the genset, complete with digital control unit for monitoring, control and protection of the generating set, protected through door with lockable handle.

### DIGITAL INSTRUMENTATION

- Generating set voltage (3 phases).
- Mains voltage.
- Generating set frequency.
- Generating set current (3 phases).
- Battery voltage.
- Power (kVA - kW - kVAr).
- Power factor Cos  $\phi$ .
- Hours-counter.
- Engine speed r.p.m.
- Fuel level (%).
- Engine temperature (depending on model)

### COMMANDS AND OTHERS

- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test.
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.
- RS232 Communication port.
- Settable PASSWORD for protection level.

### PROTECTIONS WITH ALARM

- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

### PROTECTIONS WITH SHUTDOWN

- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: 4 poles.
- Earth Fault included in the control unit

### OTHERS PROTECTIONS

- Emergency stop button.
- Panel protected through door with lockable handle.

### SOCKET PANEL

Socket 2P+G 230V 32A IP67	N°	3
Socket 3P+N+G 400V 63A IP67	N°	1
Circuit breaker 3poles B curve 63A	N°	1
Circuit breaker RCD 2poles C curve A type 30mA 32A	N°	3
Auxiliary plug	N°	1



## GENSET SUPPLEMENT AND SPECIAL PART

QFC1 - Quick Fit Fuel connectors inside the canopy placed internally according to the layout below; pay attention to male-female disposition



WSP – Water separator filters and connected to the lifting bridge with dedicated bracket



MBS – Manual battery switch connected to vertical lifting bridge



Bus Bar feature - Inclined panel in front of bus bar is in angle and depth to avoid both access for fingers and exit of fixing lug; Additional protection is provide in front of the panel; U bracket for helping user to lock cables; An alarmed switch is connect to the door of control panel and its alarm must be managed by AC03



Docs Holder locked on internal part of door



Potentiometer - The voltage potentiometer is located internally on the panel and NOT on the external side of the panel

