ENERGY GENERATION

GXW35W

Main Features		
Frequency	Hz	50
Voltage	V	400
Power factor	cos ϕ	0.8
Phase and connection		3

Power Rating		
Standby power LTP	kVA	33.00
Standby power LTP	kW	26.40
Prime power PRP	kVA	32.50
Prime power PRP	kW	26.00

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		Weichai
Model		WP3.9D33E2
Version		50 Hz
[50Hz] Exhaust emission level		Unregulated
Engine cooling system		Water
Nr. of cylinder and disposition		4 in line
Displacement	cm^3	3860
Aspiration		Natural
Speed governor		Mechanical
Prime gross power PRP	kW	33.3
Maximum gross power LTP	kW	36.6
Oil capacity	l	9.5
Coolant capacity	l	17
Fuel		Diesel
Specific fuel consumption @ 75% PRP	g/kWh	230
Specific fuel consumption @ PRP	g/kWh	230
Starting system		Electric
Starting engine capability	kW	3.8
Electric circuit	V	12

Standard Equipment

Engine and block
Cast iron gantry type structure block
One-piece forged crankshaft
Cast iron cylinder heads
Aluminium alloy pistons with gallery oil cooling

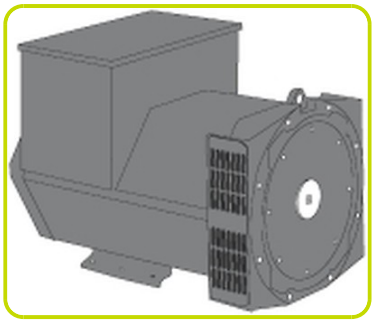
Cooling system
Thermostatically -controlled system with belt driven coolant pump and pusher fan

Lubrication system
Flat bottom large capacity oil pan
Spin-on full-flow lub oil filter
Special design connector for oil heater and drawing off oil pump

Fuel system
Injection pump
Large capacity filter for better efficiency
Air intake and exhaust system
Special rear mounted air filter air filter with restriction indicator

Electrical system
12 V electric starter motors and battery charging alternator
Standard sensor connector

Alternator Specifications		
Brand		PRAMAC
Model		PB18G/4
Voltage	V	400
Frequency	Hz	50
Power factor	cos ϕ	0.8
Poles		4
Voltage regulation system		Electronic
Standard AVR		AS440
Voltage tolerance	%	1
Efficiency @ 75% load	%	87.5
Class		H
IP protection		22



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

Voltage regulator
AVR - STANDARD
With this self excited control system the main stator supplies power via the Automatic Voltage Regulator (AVR) to the exciter stator. The high efficiency semiconductors of the AVR ensure positive build-up from initial low levels of residual voltage.
The exciter rotor output is fed to the main rotor through a three phase full wave bridge rectifier. This rectifier is protected by a surge suppressor against surges caused, for example, by short circuit.

Windings & Electrical performance
All generator stators are 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 trouble-free supply of non-linear loads. The 2/3 pitch design avoids excessive neutral currents sometimes seen with higher winding pitches, when in parallel with the mains. A fully connected damper winding reduces oscillations during paralleling. This winding, with the 2/3 pitch and carefully selected pole and tooth designs, ensures very low waveform distortion.

Insulation / Impregnation
The insulation system is class 'H'.
All wound components are impregnated with materials and processes designed specifically to provide the high build required for static windings and the high mechanical strength required for rotating components.

Reference standards
Pramac Alternators meet the requirements of BS EN 60034 and the relevant sections of other national and international standards such as BS5000, VDE 0530, NEMA MG1-32, IEC34, CSA C22.2-100, AS1359.

Genset equipment

BASE FRAME MADE OF WELDER STEEL PROFILE, COMPLETE WITH:

• Anti-vibration mountings properly sized

• Visual fuel level indicator

• Integrated support legs.

PLASTIC FUEL TANK, COMPLETE WITH:

• Filler neck

• Air breather (ventilation pipe)

• External fuel refilling

OIL DRAININ PIPE WITH CAP:

• Oil draining facilities

CANOPY:

Soundproof canopy made up of modular panels
• 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 and internal perforated galvanized steel-sheet; Detachable panels, with screws holes protected by rubber tap.
• Control panel protection door provided with suitable window and lockable handle.
• Lateral air inlet opening properly protected and soundproofed. Exhaust air outlet from the roof, trough wet section protected by proper grid.
• Single detachable lifting eye placed on the roof.

SOUNDPROOF:

• Noise attenuation thanks to soundproofing material and efficient residential silencer placed inside the canopy.

Dimensional data		
Length	(L) mm	2200
Width	(W) mm	1030
Height	(H) mm	1320
Dry weight	Kg	910
Fuel tank capacity	l	51

Autonomy		
Fuel consumption @ 75% PRP	l/h	6.51
Fuel consumption @ 100% PRP	l/h	8.63
Running time @ 75% PRP	h	7.83
Running time @ 100% PRP	h	5.91

Noise level		
Guaranteed noise level (LWA)	dB(A)	96
Noise pressure level @ 7 mt	dB(A)	67

dB GUARANTEE

Data Current		
Battery capacity	Ah	70
MAX current	A	47.63
Circuit breaker	A	50

Control panel availability	
AUTOMATIC CONTROL PANEL	ACP

ACP - Automatic control panel

Automatic control panel mounted on the genset, complete with digital control unit AC03 for monitoring, control and protection of the generating set.

DIGITAL INSTRUMENTATION (AC-03)
- Mains voltage.
- Generating set voltage.
- Generating set frequency
- Generator set current
- Battery voltage
- Hours-counter.

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
- Emergency stop button.
- Remote starting availability.
- DC system disconnection switch
- Automatic battery charger.
- Settable PASSWORD for protection level.

PROTECTIONS WIYH ALARM
- Engine protections: low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage, battery charger failure.

PROTECTIONS WITH SHUTDOWN
- Engine protections: low oil pressure, high engine temperature.
- Genset protection: under/over voltage, overload, under/over battery voltage.
- Circuit breaker protection
- Differential protection.

OTHER PROTECTIONS:
- Emergency stop button

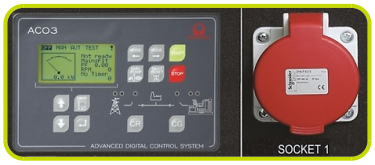
OUT PUT PANEL ACP

Plinth row for connection from ACP to LTS panel.	√
Power cables connection to Circuit Breaker.	√
Socket kit	Optional

Supplements:		
Only Available when order		:

Socket kit

3P+N+T 400V 63A	n	1



ENGINE SUPPLEMENTS

PHS - Coolant Pre-Heating System - available for models:	ACP

Accessories

Items available as accessory equipment

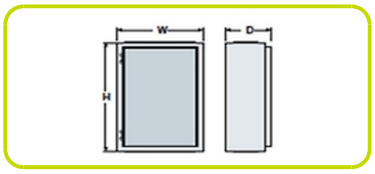
LTS - LOAD TRANSFER SWITCH - Accessories ACP

The Load Transfer Switch (LTS) panel operates the power supply changeover between the generator and the Mains in backup applications, guarantying the feeding to the load within a short period of time.
It consists of a standalone cabinet which can be installed separate from the generating set. The logic control of the power supply changeover is operated by means of the Automatic Control panel mounted on the generating set, so therefore none logic device is required on the LTS panel.

NOMINAL CURRENT & DIMENSIONS PANEL LTS (standard*)

Nominal Current	A	60
Width	(W) mm	400
Height	(H) mm	400
Depth	(D) mm	240
Weight	Kg	14

* = Available electrical power more



Printed on 4/11/2015 (ID 3122)

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