



ENSURING SUSTAINABLE
POWER

**VOLVO
PENTA**



GENERATING SETS



WATER COOLED



THREE PHASES



60 HZ



DIESEL

Service		Standby	Prime
Power	kVA	694	631
Power	kW	555	505
Rated Speed	r.p.m	1800	
Standart Voltage	V	380/220	
Rated At Power Factor		0.8	

IPS Company with quality certification ISO 9001

IPS gensets are compliant with EC mark which includes the following directives:

- 2006/42/EC Machinery safety.
- 2014/30/EU Electromagnetic compatibility.
- 2014/35/EU Electrical equipment designed for use within certain voltage limits
- 2000/14/EC Sound Power level. Noise emissions outdoor equipment. (amended by 2005/88/EC)
- 97/68/EC Emissions of gaseous and particulate pollutants. (amended by 2002/88/EC & 2004/26/EC)
- EN 12100, EN 13857, EN 60204

SPECIFICATIONS

ENGINE

Engine	Specifications	
Engine Power Output	<i>kWm/hp</i>	604 / 821
Manufacturer		VOLVO PENTA
Model		TAD1642GE
Engine Speed	<i>r.p.m</i>	1800
Injection Type		ELECTRONIC DELPHI PUMP E1
Number of cylinder		6 in-line
Bore and Stroke	<i>mm</i>	144 × 165
Displacement	<i>L</i>	16.12
Cooling System		Water-cooled
Fuel Consumption 50% PRP	<i>l/h</i>	132.4
Fuel Consumption 75% PRP	<i>l/h</i>	129.6
Fuel Consumption 100 % PRP	<i>l/h</i>	135.5
Total oil capacity including tubes, filters	<i>L</i>	42
Total coolant capacity	<i>L</i>	60
Governor	<i>Type</i>	Electronic VOLVO EMS2
Electric system voltage(V)	<i>V</i>	24

ALTERNATOR

Alternator	Specifications	
Design		Brushless Single Bearing, Revolving Field
Stator		2/3 Pitch
Output Voltage	<i>V</i>	380
Frequency	<i>HZ</i>	60
Automatic Voltage Regulation	<i>±%</i>	1
Standard Temp. Rise	<i>C</i>	125 - 136 C
Number of Wires		4
Phase Rotation		A (U), B (V), C (W)
Protection Class		H
Standard degree of protection		IP23
Rotor		Single Bearing, Flexible Disc

Prime Power (PRP):

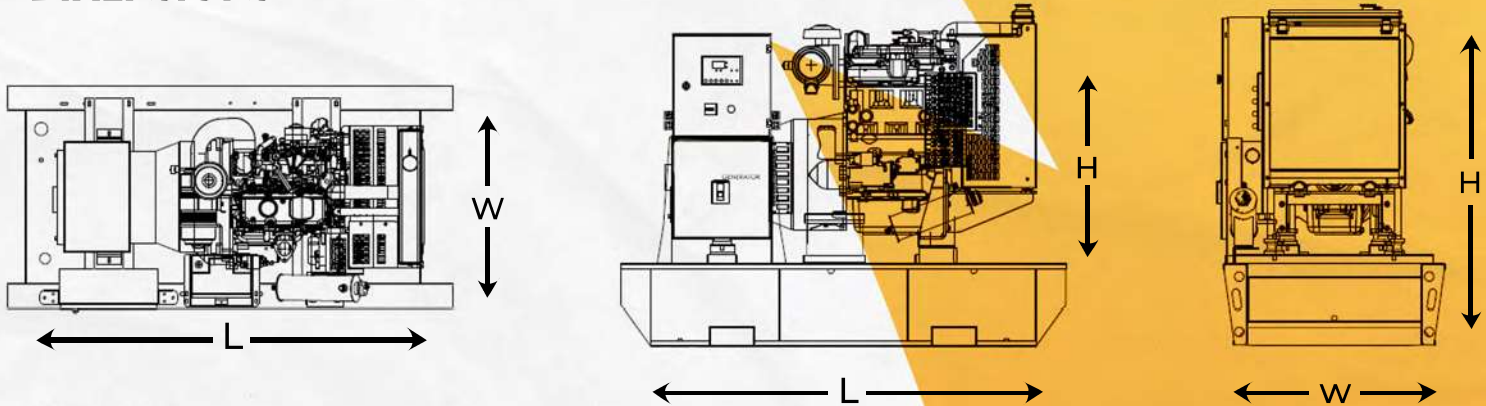
According to ISO 8528-1:2005, Prime power is the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output (P_{pp}) over 24 h of operation shall not exceed 70 % of the PRP.

Emergency Standby Power (ESP):

According to ISO 8528-1:2005, Emergency standby power is the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24 h of operation shall not exceed 70 % of the ESP.

Note: All data based on operation to ISO 3046/1, BS 5514 and DIN 6271 standard reference conditions

DIMENSIONS



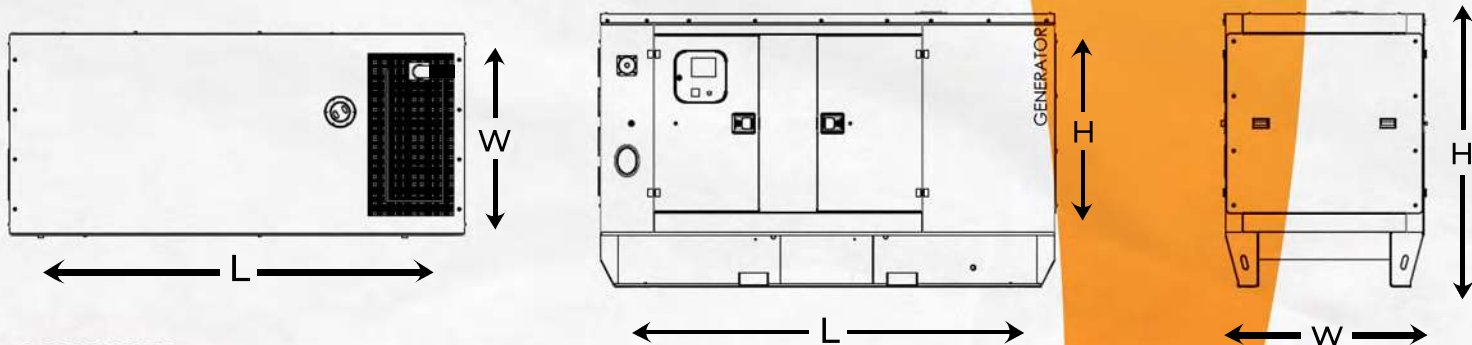
OPEN SET

LxWxH	mm	LxWxH	3200 x 1650 x 2300
Weight	kg	Weight	5500
Fuel Tank	lt	Fuel Tank	770

OPEN TYPE FEATUERS:

The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame

- Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- Base frame design incorporates an integral fuel tank (Up to 750 kVA)
- The generating set can be lifted or carefully pushed / pulled by the base frame
- Dial type fuel gauge and drain plug on the fuel tank
- Forklift pockets within base frame (up to 500kVA)



CANOIED

LxWxH	mm	LxWxH	4500 x 2000 x 2800
Weight	kg	Weight	7000
Fuel Tank	lt	Fuel Tank	770

Sound Proof Canopy

- Special design for minimizing acoustic level.
- Galvanized steel construction further protected by polyester powder coat paint.
- Black finish stainless steel locks and hinges.
- Control panel viewing window in a lockable access door.
- Emergency stop push button (red) mounted on enclosure exterior.
- Lifting, drag and jacking points on base frame.
- Radiator fill via removable, flush mounted rain cap fitted with compression seal.
- Acoustic insulation with moisture-repellent and non-flammable material
- Exhaust Silencer is Protected against environmental influences.
- All canopy are designed with modular principles without welding assembly.

Control System

Control supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows:

1. Auto Mains Failure Control Panel

Panel equipments:

- Control with AMF module
- Static battery charger
- Emergency stop push button



DSE 7320

a. Generating set control module DSE 7320 features

- The module is used to monitor a mains supply and starts and stops a standby generating set.
- Micro-processor based design.
- Automatic control of mains and generator contactors.
- Monitors engine performance and AC power output.
- LED alarm indication.
- Front panel configuration of timers and alarm trip points.
- Easy push button control STOP/RESET
- MANUAL -TEST- AUTO - MUTE ALARM - START.

b. Metering via LED display

- Generator Volts (L-L / L-N)
- Engine oil pressure (PSI-Bar)
- Generator Ampere (L1,L2,L3)
- Engine temperature (°C&°F)
- Generator Frequency (Hz)
- Plant battery volts
- Engine hours run
- Mains Volts (Ph-Ph/Ph-N)
- Generator kVA, kWh
- Generator kW as % of rated kW setting
- Generator Cos (φ)

c. Alarms

- Over and Under Speed
- Low and High Battery Volt.
- Start and Stop Failure
- Charge fail
- Over Current
- Under / Over Generator Voltage
- Low Oil Pressure
- Emergency stop
- High engine temperature
- kW overload
- Unbalanced load
- Independent earth fault trip

d. LED indications

Four configurable LED's like:

- Mains available
- Generator available
- Mains on load
- Generator on load

2. Power Outlet Terminal Board Mounted on the Genset Base Frame.



ENSURING SUSTAINABLE
POWER