



شركة العاقل التجارية المحدودة  
Elaghil Trading Company Ltd.

# KGVP500 GENSET

Generating Set Powered By **VOLVO PENTA** **STAMFORD**



Image for illustration purposes only

## Output Ratings

Generating Set Model	Prime Power	Standby Power
1500rpm, 50 Hz /400V	404KWe / 505KVA	445KWe / 556KVA
1800rpm, 60 Hz /440V	456KWe / 570KVA	513KWe / 642KVA

## Genset Specifications

Engine Make & Model	Volvo Penta TADI64IGE
Origin	SWEDEN
Alternator Type	Stamford HCI544D
Control Panel	Deap Sea - 7310
Circuit Breaker Type	3 Pole MCCB
Tropical Cooling System	55°C
Fully Electronic with Volvo Penta EMS 2	
Emission Compliant	
CANBUS SAEJ1939 Interface	

Fuel System	50%	75%	100%
1500rpm, 50 Hz	50.93	75.25	101.87
1800rpm, 60Hz	58.89	87.47	118.94

\*Prime Power (l/hr)

## International Standards

Engine confirm to ISO 9001:2000, ISO 14001, ISO10054, ISO 3046,BS 5514,DIN 6271.  
Alternator confirm to ISO 9001, ISO 14001, BS EN 60034, BS 5000,VDE 0530, NEMA MG1-32, IEC34 CSA C22.2-100,AS 1359, BS 6861 I, B En 61000-6-2:2001



## RATING GUIDELINES

**PRIME POWER** rating corresponds to ISO Standard Power for continuous operation. It is applicable for supplying electrical power at variable load for an unlimited number of hours instead of commercially purchased power. A10 % overload capability for governing purpose is available for this rating.

**MAXIMUM STANDBY POWER** rating corresponds to ISO Standard Fuel Stop Power. It is applicable for supplying standby electrical power at variable load in areas with well established electrical networks in the event of normal utility power failure. No overload capability is available for this rating.  $1 \text{ hp} = 1 \text{ kW} \times 1.36$

## Engine Technical Data

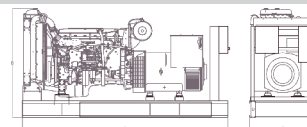
No. of Cylinders / Alignment	6 In Line
Cycle	4 Stroke
Aspiration	Turbocharged
Injection	Electronic
Bore, mm	144
Stroke, mm	165
Displacement, l	16.12
Compression Ratio	16.5:1
Starting	24V Electric
Alternators, Amps	24V/80A

## Alternator Technical Data

No. of Bearings	Single Bearing
Insulation System	Class H
Excitation	Self Excited
Voltage Regulator	AS440
Protection	IP23
Temperature Rise, °C	125
Regulation	±1.0%
No. of Phases	3
No. of Poles	4

## Dimensions & Weights

Length(m)	Width(m)	Height(m)	Weight(kg)	Tank Capacity(L)
3.65	1.13	1.95	3850	405



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Performances	1500rpm	1800rpm
<b>Alternator Efficiency</b>	94.3%	94.6%
<b>Engine Power</b>		
Prime Power, KWm(hp)	430(585)	485(660)
Standby Power, KWm(hp)	473(643)	546(743)
<b>Alternator</b>		
Prime Power, KWe	440	475

Lubrication System	1500rpm	1800rpm
<b>Oil Consumption (l/hr)</b>	0.10	0.12
<b>Oil Sump Capacity, l</b>	42	
<b>Oil System Capacity Include Filters, l</b>	48	

Cooling System	1500rpm	1800rpm
<b>Heat Radiation from Engine and Alternator, Power KW (Standby)</b>	20	24
<b>Heat Rejection to Coolant and Lube Oil at Standby Power, KW</b>	184	231
<b>Radiator Cooling Air Flow, m<sup>3</sup>/s</b>	-	-
<b>Coolant Capacity, l</b>	87	

Intake & Exhaust System	1500rpm	1800rpm
<b>Air Flow Combustion at Standby Power, m<sup>3</sup>/min(cfm)</b>	35.5(1254)	44(1554)
<b>Heat Rejection Exhaust at Standby Power, KW</b>	356	442
<b>Exhaust Gas Temperature at Standby °C</b>	455	479
<b>Max Allowable Back Pressure in Exhaust Line, Kpa</b>	8.16	10.1
<b>Exhaust Gas Flow at Standby Power, m<sup>3</sup>/min(cfm)</b>	92(3249)	110.4(3899)

Accessories	
<b>Oil Drain Pump</b>	Standard Silencer
<b>Stainless Steel Flexible</b>	Anti-Vibration Pads
<b>Genuine Oil (Volvo Penta)</b>	Fuel Tank Base Frame for 8hrs
<b>Volvo Penta 'Ready Mix'</b>	

## Control Panel Readings

- AC volts, AC currents, DC volts, frequency, rpm, hour counter, power factor.
- Low oil pressure, high water temperature, boost pressure and temperature, KW, KWh, KVA, KVAR, fuel consumption, relative load
- Oil pressure, water temperature, low oil level, high oil temperature
- DC alternator failure, over speed, over crank (Fail to start), over under voltage, over under current, any sensor failure
- Low coolant level - Configurable inputs & outputs
- Upgradable for GSM network connection, Signal SMS messages.

## Optional Equipment

- **Engine**
  - Coolant heater
  - Oversize batteries
  - Extra fuel pre-filter water separator
  - Battery disconnect switch
- **Alternator**
  - Permanent magnet generator (PMG)
  - Upgrade to 3 phase sensing AVR
  - Quadrature droop kit
  - Anti-condensation heater
  - Air inlet filters
- **General**
  - Upgrade to modular controller for paralleling
  - Upgrade to 4 pole circuit breaker
  - Battery charger
  - Automatic transfer switch
  - Fuel level switch High / Low for alarm and control
  - Fuel transfer pump Automatic / Manual
  - Residential grade silencer
  - Weather protective and acoustic enclosure.

## Spare Parts Kit (Optional) Genuine - Volvo Penta

Oil filter, full flow	(2)
Oil filter, bypass	(1)
Fuel filter water separator	(1)
Fuel filter	(1)
Air filter	(1)
Fan belt set	(1)
Coolant filter	(1)
Alternator belt set	(1)

## General Information

- Documentation**
- Engine instruction book-English
  - Alternator manual- English
  - Wiring diagram

## Warranty

One year or 1000 thousand hours whichever elapsed first against all defects in material / or workmanship, subject to the terms and conditions of the Manufacturer's warranty.



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