



# KMGVP650 GENSET

Generating Set Powered By **VOLVO PENTA**

**STAMFORD LEROY-SOMER™**



Image for illustration purposes only

### Output Ratings

| Speed,Frequency/Volt | Prime Power                | Standby Power               |
|----------------------|----------------------------|-----------------------------|
| 1500rpm, 50 Hz /400V | 480KW <sub>e</sub> /600KVA | 524KW <sub>e</sub> / 655KVA |

### Genset Specification

|                                |                            |
|--------------------------------|----------------------------|
| <b>Engine Make &amp; Model</b> | Volvo Penta TAD1642GE -B   |
| <b>Origin</b>                  | SWEDEN                     |
| <b>Alternator Type</b>         | HCI544E/S5LID-E4I/TAL0473E |
| <b>Control Panel</b>           | Deep Sea - 7310 MKII       |
| <b>Circuit Breaker Type</b>    | 3Pole MCCB                 |
| <b>Tropical Cooling System</b> | 55°C                       |

Fully Electronic with Volvo Penta EMS 2

Emission Compliant

CANBUS SAEJ1939 Interface

| Fuel System (prime)   | 50%  | 75%  | 100%  |
|-----------------------|------|------|-------|
| 1500rpm, 50 Hz (L/hr) | 59.9 | 88.9 | 116.7 |

### International Standards

Engine confirm to ISO 9001 2000, ISO 14001, ISO 10054, 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 hp = 1 kW x 1.36**

### Engine Technical Data

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

### Alternator Technical Data

|                             |                                |
|-----------------------------|--------------------------------|
| <b>No. of Bearings</b>      | Single Bearing                 |
| <b>Insulation System</b>    | Class H                        |
| <b>Excitation</b>           | Self Excited                   |
| <b>Voltage Regulator</b>    | AS440/R150                     |
| <b>Protection</b>           | IP23                           |
| <b>Temperature Rise, °C</b> | Prime 125/40<br>Standby 163/27 |
| <b>Regulation</b>           | ±1.0% - ±0.8%                  |
| <b>No. of Phases</b>        | 3                              |
| <b>No. of Poles</b>         | 4                              |

### Dimensions (m) & Weights (kg)

|                 | L    | W    | H    | Weight | Tank Capacity(L) |
|-----------------|------|------|------|--------|------------------|
| <b>Open</b>     | 3.64 | 1.13 | 1.95 | 3950   | 390              |
| <b>Enclosed</b> | 4.81 | 1.46 | 2.35 | 5845   | 549              |

For the enclosed type:-  
The sound level is around 85 dB(A) @ 3m .  
The height to be increased by 12cm for the hook.

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| Performances 1500rpm         |          |
|------------------------------|----------|
| <b>Alternator Efficiency</b> | 94.9%    |
| <b>Engine Power</b>          |          |
| Prime Power, KWm(hp)         | 505(687) |
| Standby Power, KWm(hp)       | 556(756) |
| <b>Alternator</b>            |          |
| Prime Power, KW              | 488      |

| Lubrication System 1500rpm                    |      |
|---|------|
| <b>Oil Consumption (l/hr)</b>                 | 0.11 |
| <b>Oil Sump Capacity, l</b>                   | 42   |
| <b>Oil System Capacity Include Filters, l</b> | 48   |

| Cooling System 1500rpm   |     |
|--|-----|
| <b>Heat Radiation from Engine and Alternator, Power KW (Standby)</b> | 20  |
| <b>Heat Rejection to Coolant and Lube Oil at Standby Power, KW</b>   | 218 |
| <b>Radiator Cooling Air Flow, m³/s</b>                               | 9.1 |
| <b>Coolant Capacity, l</b>   | 61  |

| Intake & Exhaust System 1500rpm                          |             |
|--|-------------|
| <b>Air Flow Combustion at Standby Power, m³/min(cfm)</b> | 40.6(1434)  |
| <b>Heat Rejection Exhaust at Standby Power, KW</b>       | 426         |
| <b>Exhaust Gas Temperature at Standby °C</b>             | 494         |
| <b>Max Allowable Back Pressure in Exhaust Line, Kpa</b>  | 10          |
| <b>Exhaust Gas Flow at Standby Power, m³/min(cfm)</b>    | 100.7(3556) |

| Accessories                      |                                    |
|----------------------------------|------------------------------------|
| <b>Oil Drain Pump</b>            | <b>Standard Silencer</b>           |
| <b>Stainless Steel Flexible</b>  | <b>Anti-Vibration Pads</b>         |
| <b>Genuine Oil (Volvo Penta)</b> | <b>Genuine Coolant 'Ready Mix'</b> |

| Control Panel Readings  |
|---|
| <ul style="list-style-type: none"> <li>• AC volts, AC currents, DC volts, frequency, rpm, hour counter, power factor.</li> <li>• Low oil pressure, high water temperature, boost pressure and temperature, KW, KWh, KVA, KVAR, fuel consumption, relative load</li> <li>• Oil pressure, water temperature, low oil level, high oil temperature</li> <li>• DC alternator failure, over speed, over crank (Fail to start), over under voltage, over under current, any sensor failure</li> <li>• Low coolant level - Configurable inputs&amp;output</li> <li>• Upgradable for GSM network connection, Signal SMS messages.</li> </ul> |

| Optional Equipment   |
|--|
| <ul style="list-style-type: none"> <li>• <b>Engine</b> <ul style="list-style-type: none"> <li>-Coolant heater</li> <li>-Oversize batteries</li> <li>-Extra fuel pre-filter water separato</li> <li>-Battery disconnect switch</li> </ul> </li> <li>• <b>Alternator</b> <ul style="list-style-type: none"> <li>-Permanent magnet generator (PMG)</li> <li>-Upgrade to 3 phase sensing AVR</li> <li>-Qadrature droop kit</li> <li>-Anti-condensation heater</li> <li>-Air inlet filter</li> </ul> </li> <li>• <b>General</b> <ul style="list-style-type: none"> <li>-Upgrade to modular controller for paralleling</li> <li>-Upgrade to 4 pole circuit breaker</li> <li>-Battery charger</li> <li>-Automatic transfer switch</li> <li>-Fuel level switch High / Low for alarm and control</li> <li>-Fuel transfer pump Automatic / Manual</li> <li>-Residential grade silencer</li> <li>-Weather protective and acoustic enclosure.</li> </ul> </li> </ul> |

| Spare Parts Kit (Optional) | Genuine - Volvo Penta |
|----------------------------|-----------------------|
| Oil filte , full fl w      | (2)                   |
| Oil filte , bypass         | (1)                   |
| Fuel filter water separato | (1)                   |
| Fuel filter                | (1)                   |
| Air filter                 | (1)                   |
| Fan belt set               | (1)                   |
| Coolant filte              | (1)                   |
| Alternator belt set        | (1)                   |

| General Information   |
|---|
| <b>Documentation</b><br>Engine instruction book-English<br>Alternator manual- English<br>Wiring diagram |

**Warranty**  
 One year with unlimited hours against all defects in material / or workmanship, subject to the terms and conditions of the Manufacturer's warranty

