GENTECH
SOUTH AFRICA PTY LTD
POWER SOLUTIONS

GenTech SA (Pty) Ltd
010 012 6020
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126 Birch Road, corner Larch Road
Benoni AH, Benoni, 1501

650 kVA Volvo Penta PRIME SOUND ATTENUATED CANOPY DIESEL GENERATOR



SOUND ATTENUATED	LOAD TESTED	GENTECH SUPPORT
SMARTGEN CONTROL	ATS / AMF INCLUDED	AVR REGULATION

About Volvo Penta

Volvo Penta industrial diesel engines are used in demanding power-generation applications. GenTech SA configures Volvo Penta generator sets for commercial, industrial and infrastructure projects requiring dependable prime and standby power.

GenTech SA configures the 650 kVA Volvo Penta generator with SmartGen automatic control, an AVR-regulated brushless alternator, ATS / automatic mains-failure changeover included as standard, a GenTech canopy-based fuel system and a sound-attenuated enclosure configuration for reliable power in demanding environments.

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ENGINE SPECIFICATIONS

VOLVO PENTA TWD1644GE

Volvo Penta engine platform

Engine output shown using the Prime Power (PRP) reference for the 650 kVA GenTech build.

SPECIFICATION	DETAIL
Engine manufacturer	Volvo Penta
Engine model	VOLVO PENTA TWD1644GE
Displacement	16.12 L
Cylinder bore / stroke	144 × 165 mm
Cylinders	6
Cylinder arrangement	In-line
Engine output @ 1500 rpm	575 kW PRP
Aspiration	2-stage turbocharged with intercooling and aftercooling
Cycle	4-stroke diesel
Compression ratio	16.8:1
Fuel tank capacity	700 L
Recommended oil type	15W40
Oil capacity	48 L
Cooling method	Water cooled, separate HT / LT circuits
Coolant capacity	151.1 L total across HT / LT circuits
Starter system	24 V, 7.0 kW
Governor system	Volvo / EMS 2.3
Engine speed	1500 RPM

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1 ALTERNATOR & ELECTRICAL SPECIFICATIONS



Generator output class	650 kVA
Standard alternator	Faraday / Werna or equivalent quality
Premium alternator options	Mecc Alte / Leroy-Somer - quoted on request
Alternator type	Brushless
Phase configuration	Three phase
Rated voltage	380–400 V
Rated frequency	50 Hz
Speed	1500 RPM
Automatic Voltage Regulator	AVR included
Protection class	IP23

2 SMARTGEN CONTROL SYSTEM



The SmartGen automatic controller provides comprehensive monitoring and control of the generator set, including automatic start/stop, protection, alarm indication and operating data display. It is suitable for mains-failure backup and solar-ready applications, supporting reliable and unattended operation.

Controller	SmartGen automatic generator controller
ATS / automatic changeover	Included as standard

3 WARRANTY, SERVICE & OPERATING NOTES

Mechanical warranty	1 year / 1,000 hours, whichever occurs first, subject to GenTech SA terms and conditions
First service	50 hours / 3 months, whichever occurs first
Second service	200 hours / 6 months, whichever occurs first
Third service	550 hours / 12 months, whichever occurs first
Ongoing service	Annually or at the applicable engine manufacturer interval, whichever occurs first

OPERATING NOTES

Prime Power (PRP) is intended for long-running applications where the electrical load changes. Continuous / Base Load (COP) applies where the generator carries a steady or sustained load. Actual available output can be affected by altitude, ambient temperature, ventilation, power factor and the type of electrical load. Heavy sustained PF 1.0-type loads may require additional generator capacity. Full GenTech SA warranty and operating conditions apply.

Product images are representative and specifications may change without notice.