



GENERATOR KING

# GKV-440

## KEY SPECIFICATIONS

STANDBY POWER	440kVA
PRIME POWER	400kVA
PHASE	Three
DRY WEIGHT	4500kg
LENGTH	3900mm
WIDTH	1400mm
HEIGHT	1850mm
FUEL TANK CAPACITY	700L



## FEATURES & BENEFITS

- Maximum 440kVA standby power at 230/400v @ 50Hz 1500rpm
- High-quality and reliable six-cylinder 12.78L Volvo Penta diesel engine
- Ideal for business applications
- Silent canopy which can stand outside with lockable doors
- Automatic changeover (ATS), maintenance free batteries and trickle charger included
- Four-way protection system included
- H-specification insulation, brushless alternator with AVR provides stable output
- Easy to use digital controller with auto and manual start options
- All sets undergo a comprehensive testing/pre delivery inspection prior to delivery peace of mind of earlier of one year/1000 hour warranty
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## STANDARD GENSET SPECIFICATIONS

### ENGINE

Volvo heavy-duty diesel engine  
 Six cylinder equipped with piston cooling  
 Electronic governor control system  
 Replaceable wet type cylinder liners  
 24v DC starter and charge alternator  
 Replaceable fuel filter, oil filter and dry element air filter  
 Cooling radiator and fan  
 Fuel connection hoses and manual sump oil drain valve  
 Exhaust silencer  
 Maintenance free battery including rack and cables  
 Jacket water heater (as option)  
 Volvo engine manual

### ALTERNATOR

Brushless, single bearing system, four poles  
 Insulation class H with circuit breaker protection  
 Standard degree of protection IP21  
 Self-exciting and self-regulating  
 AVR SX440 included  
 Screen protected and drip proof  
 Stator winding with 2/3 pitch for improved harmonics  
 Close voltage regulation

### CHASSIS

Steel chassis and anti-vibration pads  
 Base frame design incorporates an integral fuel tank  
 The generator can be lifted or carefully pushed/pulled by the base frame  
 Includes diesel level sensor information to the controller

### CANOPY

Ventilation parts are designed with modular principles  
 Weather resistant and lined with sound reducing foam  
 All metal canopy parts are painted by powder paint  
 Panel window  
 Lockable doors on each side  
 Easy maintenance and operation  
 Easy lifting and moving  
 Insulated engine exhaust system  
 Exterior emergency stop push button

\*All ratings are quoted at maximum ratings at sea level and derating will be applicable for altitude and power factor

### CONTROL SYSTEM

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

### AUTO MAINS FAILURE CONTROL PANEL

Smartgen series automatic transfer switch module  
 HGM7220 electronic controller  
 Emergency stop push button  
 Static battery charger  
 Four-pole electrically and mechanically interlocked ATS

### GENERATING SET CONTROL MODULE HGM7220 FEATURES

This module is used to monitor a mains supply and automatically start a standby generating set  
 Event logging and shutdown alarms  
 STOP/RESET-MANUAL-AUTO-TEST-START

### METERING VIA LCD DISPLAY

Generator volts (L-L/L-N); mains volts (L-L/L-N)  
 Generator ampere (L1, L2, L3); generator (kVA and kW)  
 Generator frequency; generator (cos)  
 Engine hours run; plant battery (volts)  
 Engine oil pressure (psi and bar)  
 Engine speed (rpm)  
 GSM SMS signal  
 Engine temperature (°C)

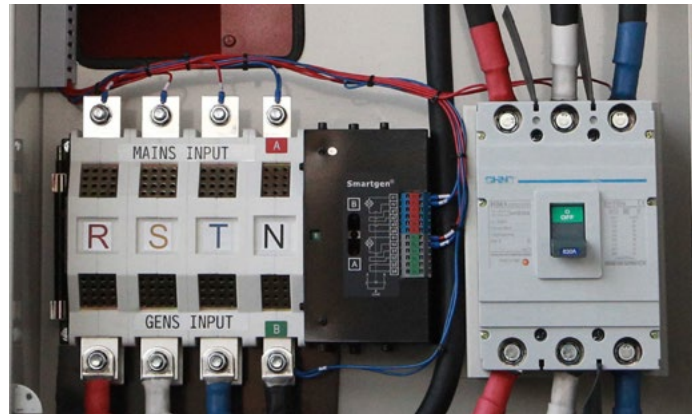
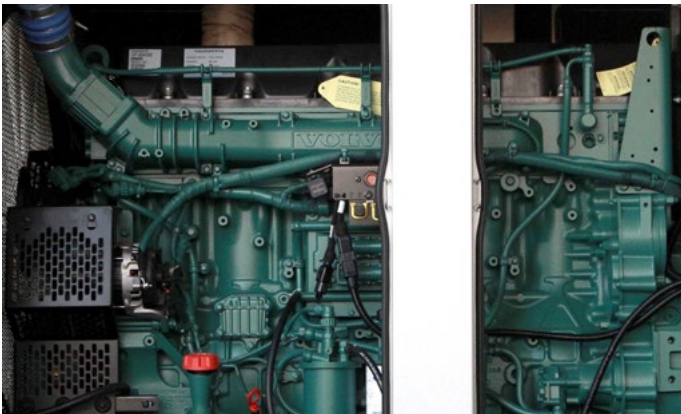
### AUTOMATIC SHUTDOWN AND FAULT CONDITIONS

Under/over speed; fail to start  
 High engine temperature; fail to stop  
 Low oil pressure; charge fail  
 Under/over generator volts; over current  
 Under/over generator frequency; emergency stop  
 Under/over mains frequency  
 Under/over mains voltage  
 Low/high battery volts



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## SPECIFICATIONS TABLE

### ENGINE SPECIFICATIONS

Engine make	Volvo
Diesel generator model	TAD1344GE
Displacement	12.78L
Cylinder bore/Stroke	131mm x 158mm
Fuel system	EMS2 governor
Cylinders	6
Cylinder arrangement	Vertical in-line
Engine output power	354kW
Turbocharged or normally aspirated	Turbocharged and intercooled
Cycle	Four stroke
Combustion system	Electronic unit injectors
Compression ratio	18.1:1
Fuel tank capacity	700l
Fuel consumption 100%	81.8 l/h
Fuel consumption 75%	62.3 l/h
Fuel consumption 50%	42.1 l/h
Fuel consumption 25%	23.1 l/h
Oil type	15W40
Oil capacity	30l
Cooling method	Radiator water-cooled
Coolant capacity (including radiator)	44l
Starter	24v DC
Governor system	Electronic
Engine speed	1500rpm

### ALTERNATOR SPECIFICATIONS

Alternator brand	Stromer
Standby power output	440kVA
Prime power output	400kVA
Insulation class	H
Type	Brushless
Phase and connection	Three phase, four wire
AVR	Yes
AVR model	SX440
Voltage regulation	± 1%
Voltage	230/400v
Rated frequency	50Hz
Voltage regulate change	≤ ±10% UN
Phase change rate	± 1%
Power factor	0.8
Protection class	IP21
Stator	2/3 pitch
Rotor	Single bearing

### GENERAL SPECIFICATIONS

Structure type	Silent weather resistant enclosure
Dimensions Length x Width x Height	3900mm x 1400mm x 1850mm
Dry weight	4500kg
ATS unit included	Yes