

## Volvo 650kVA standby diesel generator



### KEY SPECIFICATIONS

STANDBY POWER	650kVA
PRIME POWER	590kVA
PHASE	Three
DRY WEIGHT	5500kg
LENGTH	4200mm
WIDTH	1500mm
HEIGHT	2050mm
FUEL TANK CAPACITY	810l

### FEATURES & BENEFITS

- Maximum 650kVA standby power at 230/400v @ 50Hz 1500rpm
- High-quality and reliable, six-cylinder 16.12l 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

### 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 or similar series automatic transfer switch module  
HGM 7220 electronic controller  
Emergency stop push button  
Static battery charger  
Four-pole electrically and mechanically interlocked ATS

#### GENERATING SET CONTROL MODULE HGM 7220 FEATURES

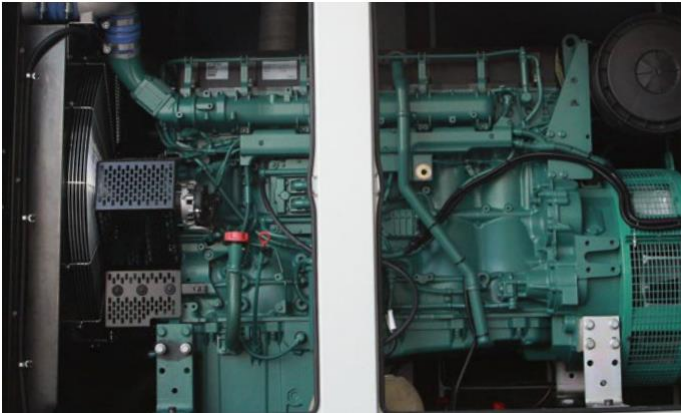
This module is used to monitor a mains supply and automatically start a standby generating set  
Event logging and shutdown alarms  
STOP/RESET-MANUAL-AUTO-TEST-START

#### 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



## SPECIFICATIONS TABLE

### ENGINE SPECIFICATIONS

Engine make	Volvo
Diesel generator model	TAD1642GE
Displacement	16.12l
Cylinder bore/Stroke	144mm x 165mm
Fuel system	EMS2 governor
Cylinders	6
Cylinder arrangement	Vertical in-line
Engine output power	430kW
Turbocharged or normally aspirated	Turbocharged and intercooled
Cycle	Four stroke
Combustion system	Electronic unit injectors
Compression ratio	16.5:1
Fuel tank capacity	810l
Fuel consumption 100%	115.48 l/h
Fuel consumption 75%	84.44 l/h
Fuel consumption 50%	58.03 l/h
Fuel consumption 25%	31.47 l/h
Oil type	15W40
Oil capacity	42l
Cooling method	Radiator water-cooled
Coolant capacity (including radiator)	60l
Starter	24v DC
Governor system	Electronic
Engine speed	1500rpm

### ALTERNATOR SPECIFICATIONS

Alternator brand	Stromer
Standby power output	650kVA
Prime power output	590kVA
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	4200mm x 1500mm x 2050mm
Dry weight	5500kg
ATS unit included	Yes