

700 KVA

DIESEL POWERED





Standby Power	kVA	700
Prime Power	kVA	630
Voltage	V	230/400
ISO Certified		Yes
Phase		Three

Features and Benefits

- **Maximum 700kva Standby Power at 230/400v @50hz 1500rpm**
- **High quality and reliable 6 cylinder 16.12 litre 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**
- **H Specification Insulation, Brushless alternator with AVR provides stable output**
- **High temperature and low oil, water and fuel protection to protect against engine damage**
- **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 1 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
- 24 V.D.C 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, 4 poles
- Insulation class H with circuit breaker protection
- Standard degree of protection IP 22
- Self-exciting and self-regulating
- AVR SX460 Included
- Screen protected and drip proof
- Stator winding with 2/3 pitch for improved harmonics
- Close voltage regulation

CHASSIS

- Steel chassis and antivibration 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

CONTROL SYSTEM

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

1) Auto Mains Failure Control Panel

Panel equipments:

- Smartgen series automatic transfer switch module
- HGM7220 electronic controller
- Emergency stop push button
- Static Battery Charger
- Electrically and mechanically interlocked

a) Generating set control module HGM7220 features

- This module is used to monitor a mains supply and automatically start a standby generating set
- Micro processor based design
- Monitors engine performance and AC power output
- LCD and LED alarm indication ; GSM sms input slot (as optional extra)
- Front panel configuration of timers and alarm trip points
- Provides signal to change over switch panel
- Event logging and shutdown alarms
- Remote communication via RS232 port or RS485 output
- Easy push button control
- STOP/RESET - MANUAL - AUTO - TEST - START
- Operation indicators accessed by the LCD display Scroll push button

b) Metering via LCD Display:

- Generator volts (L-L / L- N) ; Mains Volts (L-L / L- N)
- Generator Ampere (L1, L2, L3) ; Generator KVA & KW

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

QUALITY STDS

- The equipment meets the following standards:
- EU Stage 2 exhaust emission regulations
- US EPA 40 CFR part 89 Non-road mobile engines
- ISO 3744-1981



- Generator Frequency
- Engine hours run ; Plant battery volts
- Engine oil pressure (PSI & Bar)
- Engine speed RPM
- Engine temperature degrees C
- GSM sms signal
- Phase rotation

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
- Low Diesel level ; Low Oil level



ENGINE SPECIFICATIONS

* All ratings are quoted at maximum ratings at sea level and de rating will be applicable at altitude

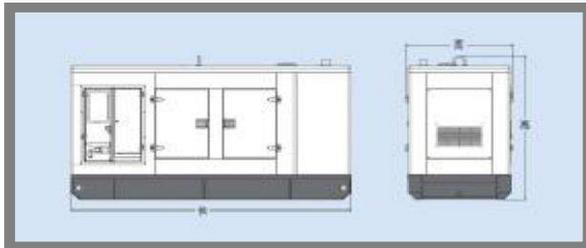
Diesel Generator Model	TWD1643GE
Engine Make	Volvo Penta
Displacement	16.12L
Cylinder bore / Stroke mm	144mm x 165mm
Fuel system	EMS Governor/ II
Cylinders	6
Standby Power at 1500 RPM (kW/HP)	596 / 811
Base Output Power at 1500 RPM (kW/HP)	536 / 796
Diesel Tank Capacity	900L
Fuel Consumption 100%	127 L/H
Fuel Consumption 75%	94 L/H
Fuel Consumption 50%	63 L/H
Fuel Consumption 25%	34 L/H
Oil Type	15W40
Oil Capacity	48 L
Coolant capacity (engine only)	35 L
Starter	24 Volt
Starting System and Governor	Electronic
Engine Speed	1500 rpm
Oil Pressure at Rated Speed	300-650 kPa
Piston speed m/s	8,3
Engine Coolant Flow L/sec	5
Firing Order	1-5-3-6-2-4
Compression Ratio	16.5:1
Starter Motor	Melco

ALTERNATOR SPECIFICATIONS

Standby Power Output (kVA)	700
Prime Power Output (kVA)	630
Insulation Class	H
Type	Brushless
Phase and Connection	3 phase, 4 wire
AVR	YES
AVR Model	SX 460
Voltage Regulation	± 1%
Voltage	400/230V
Rated Frequency	50HZ
Voltage Regulate Change	≤ ±10% UN
Phase change rate	± 1%
Power Factor	0,8
Protection Class	IP22
Stator	2 / 3 pitch
Rotor	Single Bearing

GENERAL SPECIFICATIONS

Structure Type: Silent	YES
Dimensions Length x Width x Height	4400mm x 1605mm x 2663mm
Dry Weight	7000kg
ISO 9001 Certified	YES
ATS Unit Included	YES
4 way protection system included	YES



Length x Width x Height, (mm)	Weight (Kg)
4400 x 1605 x 2663	7000

We reserve the right to change generator information without prior notice. Information is double checked to ensure that it is correct, however We will not be held responsible for clerical errors.

**VOLVO
PENTA**