

| Generating Rate       | es              | Prime   | Standby |
|-----------------------|-----------------|---------|---------|
| Power                 | kVA             | 100     | 110     |
| Power                 | kW              | 80      | 88      |
| Current               | (cos Phi=0,8) A | 144     | 159     |
| Standard Voltage      | V               | 400/231 | 400/231 |
| Revolution Per Minute | r.p.m           | 1500    | 1500    |
| Rated At Power Factor | Cos Phi         | 0,8     | 0,8     |

### Standard Features

- 4 stroke 1500RPM, water cooled heavy duty diesel engine
- Dry type replacable air filter
- Heat-resistant radiator for 50 °C
- Flexible oil pipes and oil draining valve
- Pre-heater 4 poles synchrontype, single bearing, brushless alternator
- Batteries and cables
- Electrostatic paint coated, steel, welded chassis
- Fuel tank housed in the chassis Industrial type silencer
- Electronic battery charger
- Electrical wiring diagram
- User manual and operating manual
- Protection system on manual run
- Lubrication oil and anti freeze

# Optional Equipments

- Soundproof canopy
- Automatic transfer switch
- Circuit Breaker
- Trailer
- External fuel tank
- Electronic governor
- Heating system for fuel tank
- Oil heater
- Fuel filling system (Automatic / Manual)
- Analog indicators
- 1 Phase 3 phase switch plugs
- Alarm system for fuel level
- Remote control and monitoring

- Prime Power: Supplying of electrical power at variable load for an unlimited number of hours in the event of normal utility powerfailure according to ISO8528-1. 10% over load capability is available.
- Stand By Power: Supplying of electrical power at variable load, in the event of normal utility power failure according to ISO8528-1. This rating is maximum power, no overload capability is available.





| Engine Specifications         |            |                    |
|-------------------------------|------------|--------------------|
| Brand                         |            | VOLVO PENTA        |
| Model                         |            | TAD531GE           |
| Engine Power                  | (kWm / hp) | 98/133             |
| Revolution Per Min            | (r.p.m)    | 1500               |
| Total Displacement            | (L)        | 4,76               |
| Cylinders Orientation         |            | 4 Vertical In-line |
| Broke x Stroke                | (mm x mm)  | 108 x 130          |
| Compression Orientation       |            | 18:1               |
| Governor Type                 |            | Mechanic           |
| Aspiration System             |            | Turbo CAC          |
| Injection                     |            | Direct             |
| Cooling                       |            | Water Cooled       |
| Electrical System             | (VDC)      | 12                 |
| Lub-oil Capacity              | (L)        | 13                 |
| Engine Coolant Capacity       | (L)        | 19,7               |
| Fuel Tank Capacity            | (L)        | 185                |
| Maximum Exhaust Temperature   | (°C)       | 557                |
| Maximum Exhaust Gas Flow      | (m3/h)     | 1002               |
| Maximum Allowed Back Pressure | (kPa)      | 5                  |
| Cooling Air Flow              | (m3/min)   | 90                 |
| Fuel Consumption 50 %         | (L/h)      | 11,6               |
| Fuel Consumption 75 %         | (L/h)      | 16,7               |
| Fuel Consumption 100 %        | (L/h)      | 22,4               |
|                               |            |                    |

Replacable cylinder jacket

Dry type replacable air filter

Heat-resistant radiator for 50 °C

| Alternator Specifications      |           |               |
|--------------------------------|-----------|---------------|
| Standard Voltage               | (V)       | 400/231       |
| Frequency                      | (Hz)      | 50            |
| Stationary Voltage Regulation  | (±)       | 1             |
| Short Circuit Current          |           | 300           |
| Insulation                     |           | Н             |
| Protection                     |           | IP 23         |
| Efficiency                     | (%)       | 90,3          |
| Overloading                    |           | 1 Hour - %110 |
| Rated At Power Factor          | (cos Phi) | 0,8           |
| Total Harmonic Distortion Rate |           | 2             |
| Connection Style               |           | Star          |
| Number of Pole                 |           | 4             |
| Number of Bearing              |           | Single        |

Self-cooled

Electronic type automatic voltage regulator (AVR)

<sup>4</sup> poles, self-excitation, brushless, synchrontype alternator



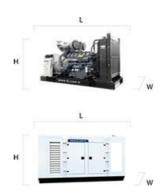
# Volvo 110 kVA

#### Dimensions Without Canopy and Weight

| WIDTH x LENGTH x HEIGHT | mm | 1100x2070x1890 |
|-------------------------|----|----------------|
| Wet Weight              | kg | 1146           |

## Dimensions With Canopy and Weight

| WIDTH x LENGTH x HEIGHT | mm | 1100x2650x1890 |
|-------------------------|----|----------------|
| Wet Weight              | kg | 1456           |



#### Control Panel Features

- Diesel and gas genset support
- 400Hz operation support
- 400 event logs full snapshot
- Multiple Automatic test program
- 3 level configuration password
- Downloadable language
- Waveform display of V&I
- Harmonic analysis of V&I
- Synchroscope & check synch
- 8 configurable digital outputs
- Outputs expandable to 40
- 4 configurable analog outputs
- Battery charge run enabled

- Weekly Operation Schedule
- Dual mutual standby with equal aging of gensets
- Manual speed fine adjust some ECU's
- Automatic fuel pumpcontrol
- Disable protection feature
- Excess protection power
- Reverse power protection
- Overload IDMT protection
- Load shedding, dummy load
- Multiple load management
- Battery back-up real time clock
- Idle speed control
- All parameters front panel editable

- Multiple nominal conditions
- Contactor & MCB drive
- 4 quadrant genset power counters
- Mains power counters
- Fuel filling counter
- Fuel consumption counter
- Free configuration software
- Allow SMS controls
- Mobile genset support
- Automatic GSM geo-location
- GPS connectivity (USB & RS232)
- Modem & ethernet diagnostic
- Configurable through USB, RS-485, Ethernet and GPRS
- Ready for central monitoring Ethernet and GPRS