

| Generating Rates      |                 | Prime   | Standby |
|-----------------------|-----------------|---------|---------|
| Power                 | kVA             | 45      | 50      |
| Power                 | kW              | 36      | 40      |
| Current               | (cos Phi=0,8) A | 65      | 72      |
| 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                         |            | PERKINS            |
| Model                         |            | 1103A-33TG1        |
| Engine Power                  | (kWm / hp) | 45,6/61,2          |
| Revolution Per Min            | (r.p.m)    | 1500               |
| Total Displacement            | (L)        | 3,3                |
| Cylinders Orientation         |            | 3 Vertical In-line |
| Broke x Stroke                | (mm x mm)  | 105 x 127          |
| Compression Orientation       |            | 17,25:1            |
| Governor Type                 |            | Mechanic           |
| Aspiration System             |            | Turbo              |
| Injection                     |            | Direct             |
| Cooling                       |            | Water Cooled       |
| Electrical System             | (VDC)      | 12                 |
| Lub-oil Capacity              | (L)        | 7,9                |
| Engine Coolant Capacity       | (L)        | 10,2               |
| Fuel Tank Capacity            | (L)        | 105                |
| Maximum Exhaust Temperature   | (°C)       | 537                |
| Maximum Exhaust Gas Flow      | (m3/h)     | 7,7                |
| Maximum Allowed Back Pressure | (kPa)      | 10                 |
| Cooling Air Flow              | (m3/min)   | 53                 |
| Fuel Consumption 50 %         | (L/h)      | 5,83               |
| Fuel Consumption 75 %         | (L/h)      | 8,23               |
| Fuel Consumption 100 %        | (L/h)      | 10,8               |

- ✓ 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                     |           | H             |
| Protection                     |           | IP 23         |
| Efficiency                     | (%)       | 88,2          |
| 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)
- ✓ 4 poles, self-excitation, brushless, synchrontype alternator

### Dimensions Without Canopy and Weight

|                         |    |                |
|-------------------------|----|----------------|
| WIDTH x LENGTH x HEIGHT | mm | 1000x1640x1376 |
| Wet Weight              | kg | 808            |

### Dimensions With Canopy and Weight

|                         |    |                |
|-------------------------|----|----------------|
| WIDTH x LENGTH x HEIGHT | mm | 1000x2250x1670 |
| Wet Weight              | kg | 1016           |



### Control Panel Features

- ✓ Diesel and gas genset support
- ✓ 400Hz operation support
- ✓ 400 event logs full snapshot
- ✓ Multiple Automatic test program
- ✓ 3 level configuration password
- ✓ 128x64 graphical LCD display
- ✓ Downloadable language
- ✓ Waveform display of V&I
- ✓ Harmonic analysis of V&I
- ✓ Synchroscope & check synch
- ✓ 16 Amp MCB & GCB outputs
- ✓ 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
- ✓ Waveform display of V&I
- ✓ 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