



| Generating Rates      |                 | PRIME   | STANDBY |
|-----------------------|-----------------|---------|---------|
| Power                 | kVA             | 100     | 110     |
| Power                 | kW              | 80      | 88      |
| Current               | (cos Phi=0,8) A | 144     | 159     |
| Standard Voltage      | V               | 400/230 |         |
| Revolution Per Minute | r.p.m.          | 1500    |         |
| Rated at power factor | Cos Phi         | 0,8     |         |

#### Standard Features

- 4 Stroke, 1500 RPM, water cooled heavy duty diesel engine
- Protection system on manuel run
- Flexible oil pipes and oil draining valve
- Pre-heater
- Lubrication oil and anti-freeze
- 4 Poles, synchronotype, 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

#### Optional Equipments

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

**Stand By Power** : Supplying of emergency electrical power at variable load, in the event of normal utility power failure. This rating is maximum power, no overload capability is available.

**Prime Power** : Supplying of electrical power at variable load for an unlimited number of hours in the event of normal utility power failure. 10% over load capability is available.

**Engine Specifications**

|                               |            |               |
|-------------------------------|------------|---------------|
| Brand                         |            | PERKINS       |
| Model                         |            | 1104C-44TAG2  |
| Engine Power Stand BY         | (kWm / hp) | 103/137       |
| Revolution Per Minute         | (r.p.m.)   | 1500          |
| Total Displacement            | (L)        | 4.4           |
| Cylinders Orientation         |            | 4 SINGLE LINE |
| Bore x Stroke                 | (mm x mm)  | 105 x 127     |
| Compression Orientation       |            | 18,23:1       |
| Governor Type                 |            | ELECTRONIC    |
| Aspiration System             |            | TURBO AAC     |
| Injection                     |            | DIRECT        |
| Cooling                       |            | WATER COOLED  |
| Electrical System             | (VDC)      | 12            |
| Lub-Oil Capacity              | (L)        | 8             |
| Engine Coolant Capacity       | (L)        | 12.6          |
| Fuel Tank Capacity            | (L)        | 190           |
| Maximum Exhaust Temperature   | (°C)       | 514           |
| Maximum Exhaust Gas Flow      | (m3/H)     | 15.2          |
| Maximum Allowed Back Pressure | (kPa)      | 18            |
| Cooling Air Flow              | (m3/min)   | 165           |
| Fuel Consumption 50 %         | (L/h)      | 11.8          |
| Fuel Consumption 75 %         | (L/h)      | 17.1          |
| Fuel Consumption 100 %        | (L/h)      | 22.6          |

- Replacable cylinder jacket
- Dry type replacable oil filter
- Heat-resistant radiator for 50 °C

**Alternator Specifications**

|                                |           |                  |
|--------------------------------|-----------|------------------|
| Output Voltage                 | (V)       | 400/230          |
| Frequency                      | (Hz)      | 50               |
| Stationary Voltage Regulation  | (±)       | 1 %              |
| Short Circuit Current          |           | > 300 %          |
| Insulation                     |           | H                |
| Protection                     |           | IP 23            |
| Efficiency                     | (%)       | 90,5             |
| Overloading                    |           | 110 % FOR 1 HOUR |
| Power Factor                   | (cos Phi) | 0.8              |
| Total Harmonic Distortion Rate |           | THF < 2 %        |
| Connection Type                |           | STAR             |
| Number Of Pole                 |           | 4                |
| Number Of Bearing              |           | SINGLE           |

- 4 Poles, Self-Excitation, Brushless, Synchronotype alternator
- Electronic type automatic voltage regulator (AVR)
- Self-Cooled

**Dimensions Without Canopy**

| Dimensions and Weight |    |      |
|-----------------------|----|------|
| Length ( L )          | mm | 2550 |
| Height ( H )          | mm | 1700 |
| Width ( W )           | mm | 1100 |
| Wet weight            | kg | 1150 |
| Fuel Tank Capacity    | L  | 190  |


**Dimensions With Canopy**

| Dimensions and Weight |    |      |
|-----------------------|----|------|
| Length ( L )          | mm | 2700 |
| Height ( H )          | mm | 1900 |
| Width ( W )           | mm | 1100 |
| Wet weight            | kg | 1270 |
| Fuel Tank Capacity    | L  | 190  |


**Control Panel Features**

- Diesel and gas genset support
- 400Hz operation support
- 400 event logs, full snapshot
- All parameters front panel editable
- 3 level configuration password
- 128x64 graphical LCD display
- Downloadable language
- Waveform display of V & I
- Harmonic analysis of V & I
- Synchroscope & check synch
- Allows closed transfers
- 16Amp MCB & GCB outputs
- 8 configurable digital outputs
- Outputs expandable to 40
- 4 configurable analog inputs
- Both CANBUS-J1939 & MPU
- 3 configurable service alarms
- Multiple nominal conditions
- Multiple automatic exerciser
- Weekly operation schedule
- Dual mutual standby with equal aging of gensets
- Manual "speed fine adjust" on selected ECUs
- Automatic fuel pump control
- Disable protections feature
- Excess power protection
- Reverse power protection
- Overload IDMT protection
- Load shedding, dummy load
- Multiple load management
- Current unbalance protection
- Voltage unbalance protection
- Fuel filling & fuel theft alarms
- Battery back-up real time clock
- Idle speed control
- Battery charge0 run enabled
- Combat mode support
- Contactor & MCB drive
- 4 quadrant genset power counters
- Mains power counters
- Fuel filling counter
- Fuel consumption counter
- Modem & Ethernet diagnostics
- Configurable through USB, RS-485, Ethernet and GPRS
- Free configuration program
- Allows SMS controls
- Ready for central monitoring Ethernet and GPRS
- Mobile genset support
- Automatic GSM geo-location
- GPS connectivity ( USB & RS232 )
- Dynamic DNS support
- Easy USB firmware upgrade
- IP65 rating with standard gasket

