

mahindra <sup>Rise</sup>

powerol  
BY mahindra

# POWERING THE GROWTH JOURNEY OF THE NATION

1010kVA & 1250kVA



Smallest Footprint  
in its segment



Longest  
Overhauling Period



Widest Sales &  
Service Network



Highest Power to  
Weight Ratio



2 Years or  
6000 Hours Warranty

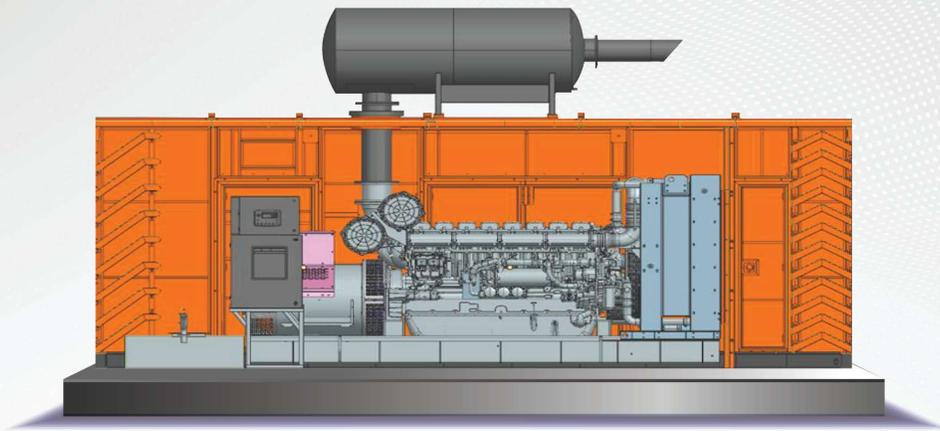
[www.mahindrapowerol.com](http://www.mahindrapowerol.com)

## About Powerol

Year 2002, Mahindra and Mahindra entered the field of power generation through its engines under the brand name Mahindra Powerol. The same engines are today propelling Diesel Generating Sets ranging from 5 kVA to 1250 kVA. Mahindra Powerol is also widely acclaimed for its fuel efficiency and quick customer response. It's a name trusted by leading players in industries like telecom & retail, among others.

Within a short span of time, Mahindra Powerol has garnered immense customer trust which shows its level of commitment and customer-centric approach. Presently, more than 400,000 Powerol gensets are powering different industries and applications in Indian and overseas markets. Mahindra Powerol, through its technology & service has taken giant strides in the engine and genset industry. In a little over a decade, it has also expanded its footprint to South East Asia, Far East, Middle East, Africa and Europe.





### Acoustic Enclosure

- Designed to meet stringent MoEF/ CPCB norms
- Designed to operate in extreme climatic conditions in temperatures ranging from 0 to 50 degree without any external aid
- Long lasting superlative fade resistant paint
- Draw out type fuel tank for easy maintenance
- Fire retardant acoustic and insulation material (PU Foam/Rockwool) for better safety
- Easy access for serviceable parts
- Pre - treatment process with UV resistant powder coating of all parts
- A special Residential Silencer is provided to control exhaust noise & emission
- Engine and alternator are mounted on a common base frame with AVM pads

### Engine

- Engine with lowest fuel consumption
- Dry type air cleaner with service indicator with lube oil & coolant
- Electrical starter motor with check for highest voltage capacity
- With battery charging alternator



## Alternator

- Brushless screen protected, Drip proof, Self-excited, Self regulated IS/IEC60034-1
- A reliable long life with superior class 'H' insulation
- Highest motor starting capability
- Light & compact, best transient response
- Ease of maintenance with integrated components and outboard Exciter/Rotating Rectifier
- Sealed bearing for less maintenance



## Controller

### KEY FEATURES

- 4-line back-lit LCD display
- PIN-protected front panel editing
- Customisable screens with power saving mode
- 9 inputs & 8 outputs (configurable)
- 3 maintenance & alternator failure alarms
- Manual speed control
- Power & load monitoring, Earth fault trip



- USB, RS232/RS485, SCADA & SMS control
- Static battery charger for battery health

### KEY BENEFITS

- Clear 132x64 pixel display
- Date & time schedulers
- Configurable maintenance periods
- Ethernet-based remote monitoring (via DSE855)
- BMS integration support
- PLC editor for custom functions

## Control Panel

Powder Coated Control Panel for weather-proof and long lasting finish. The control panel consists of the following parts:

- Power Cable/Bus bars with suitable capacity with incoming/outgoing terminals.
- Indicator lamps for 'Load on' and 'Set Running'.
- Battery Charger 24V
- Fuses/MCBs for control circuit safety protection
- ACB of suitable rating with short circuit protection

## Remote Monitoring System

- RMS is standard scope IOT incorporated for continuous remote monitoring of engine operational parameters like running hours, health, RPM, logs of the error and operational parameters through app and web - based platforms



- Helps in monitoring of generator or entire fleet of generators from anywhere, any time ensuring good health and efficiency of the generator

## Smart Generator Management Solutions

- Receive timely notifications for maintenance checks (A Check/B Check), ensuring you never miss a critical service moment
- Tailor preventive maintenance schedules to the specific needs of your generators, enhancing their efficiency and reliability
- Automate maintenance tasks to stay ahead of potential issues, minimizing downtime and prolonging equipment lifespan
- Keep track of each fueling event to ensure accuracy and deter theft
- Examine fuel consumption patterns to pinpoint inefficiencies and improve fuel efficiency
- Boost operational transparency with our generator fuel traceability system, enabling precise fuel tracking and management

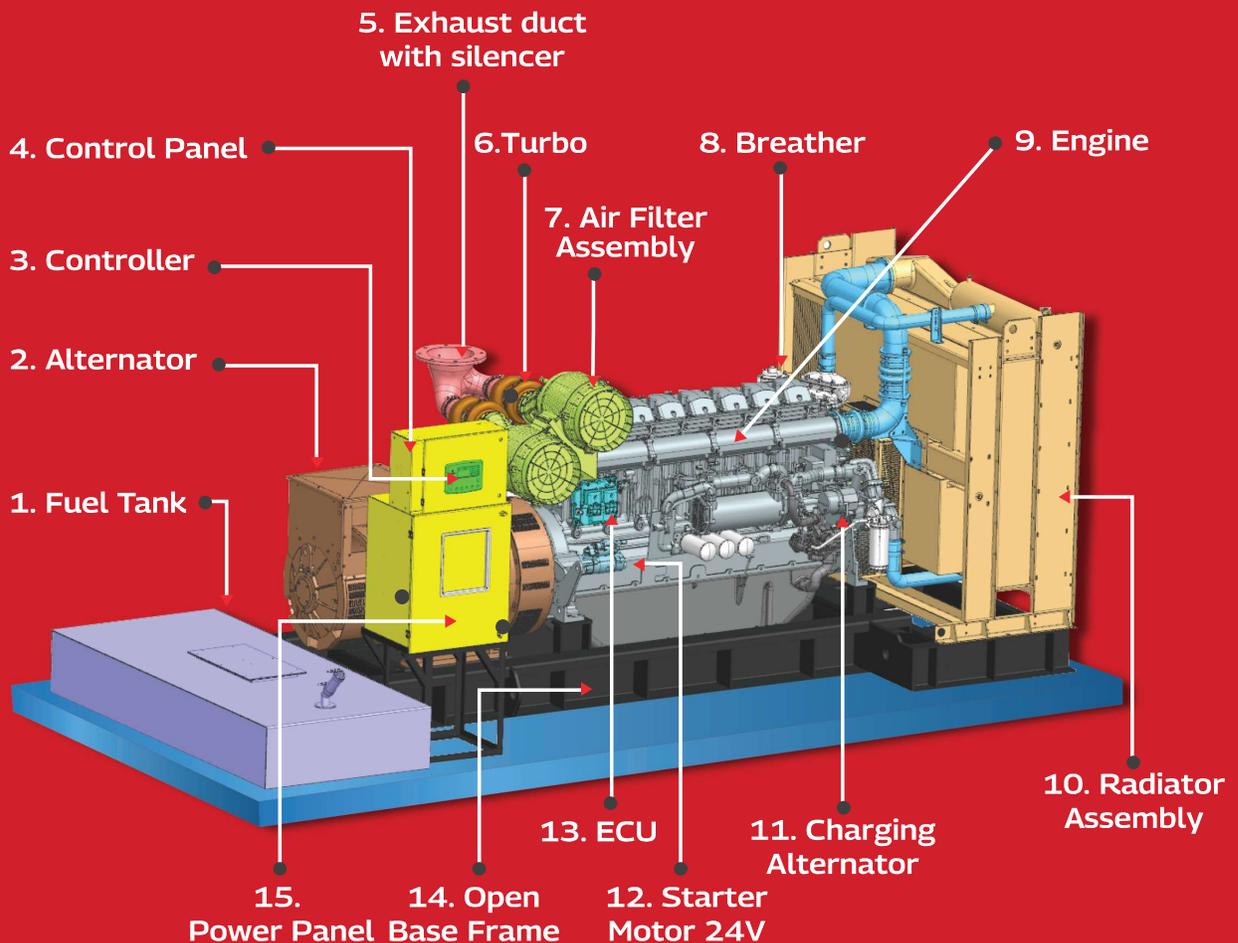
## Optional Accessories

- Cold Starting System
- PMG Alternator, Space heater, RTD/BTD
- Auto Mains Failure/Auto Transfer Switch/Sync, Controller/Sync Panel

## Applications



## Key Components



### Rating Definition:

- Prime Power - Unlimited hours usage with an average load factor of 80% of the published prime power over each 24 hour period. A 10% overload is available for 1 hour in every 12 hours operation.
- Standby Power - Limited to 500 hours annual usage with an average load factor of 80% of the published standby power rating over each 24 hour period. Up to 300 hours of annual usage may be run continuously. No overload is permitted on standby power.

## Technical Specifications

Genset	1010kVA	1250kVA*
Genset Model	M1010DR	M1250DR
Open DG Dimension, mm	4285 x 2205 x 2065	4285 x 2205 x 2065
Cap-On Canopy DG Dimension, mm	6900 x 2600 x 2750	6900 x 2600 x 2750
Open DG weight (kg)	8142	8142
Canopied Genset weight (kg)	10150	10150
Fuel Tank Capacity	905 Litres	905 Litres
Governing Class	G3 as per ISO 8528-5	G3 as per ISO 8528-5
Engine		
Engine Manufacturer	Perkins	Perkins
Engine Model	4008-30TAG2	4008-30TAG3
Configuration	8, Vertical In-line	8, Vertical In-line
Aspiration	TC/AC	TC/AC
Gross Engine Power output kWm / BHP	901 / 1208	997 / 1336
Net Engine power output kWm / BHP	851 / 1140	947 / 1270
Displacement, Lit	30.5	30.5
Bore, mm	160	160
Stoke, mm	190	190
Rated Speed, rpm	1500	1500
Compression Ratio	13:01	13:01
Lube oil capacity Max, L	153	153
Lube oil capacity Min, L	127	127
Governor Type	Electronic	Electronic
Fuel System		
Type of injection system	Direct injection	Direct injection
Cooling System		
Ambient design, °C	50	50
Coolant Capacity with radiator, Lit	140	140
Alternator		
Specification	1010kVA - 3ph	1250kVA - 3ph
Rated Voltage	415V	415V
Type	4 Pole	4 Pole
Exciter type	Exciter type	Exciter type
Insulation	Class - H	Class - H
Temperature rise	125 °C	125 °C
Enclosure Protection	IP23	IP23
Bearing	Single	Single
Voltage Regulation	± 0.5%	± 0.5%
Electrical System		
Electrical System	24V	24V
Panel	Engine control panel + Power Panel	Engine control panel + Power Panel
Controller	DSE7320-MKII	DSE7320-MKII
Battery	2*180AH	2*180AH



**Network of 180+ Dealers**  
**1000+ Touch Points**



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