

**TECHNICAL SPECIFICATIONS FOR 15 KVA TO 35 KVA, 3 CYLINDER
 MAHINDRA POWEROL DIESEL GENERATOR SET PACKAGED BY **INNOVA DIESEL™**
 GENERATORS PVT. LIMITED**

ENGINE:

Mahindra Powerol Internal Combustion (IC) Diesel Engine conforming to **BS5514 Standards** CPCB Emission Norms, Standard Design, Inline, 4 Stroke, Direct Injection type, Liquid Cooled Naturally Aspirated engine rated at 1500 RPM, 12 VOLT DC Electric Start type.



SCOPE OF SUPPLY FOR DIESEL GENERATING SET PACKAGE

FUEL SYSTEM:

- Fuel injectors with fuel lift pump
- Fuel injection pump
- Mechanical Governor **A1 Class type**
- Full flow fuel filter/s

COOLING SYSTEM:

- Radiator with set of hose pipes
- Coolant circulating pump
- Pusher type fan
- Thermostat
- Crank shaft pulley for fan belt
- Set of fan belt

LUBRICATION SYSTEM:

- Wet sump with filler and dipstick
- Full flow spin-on lube oil filter
- Gear driven lube oil pump with strainer

AIR SYSTEM:

- Air Inlet manifold
- Air filter assembly with dry type filter element

ALTERNATOR:

Synchronous Alternator suitable for close coupling with engine, rated for 3 Phase/ 1 Phase supply at 415 V / 240 V, 50 Hz, 0.8 Pf (lag) @ 1500 RPM with $\pm 0.5\%$ voltage regulation, Class H insulation conforming to IS 13364 / IS 4722 / BS 4999-5000 standards, Self excited, self regulated, screen protected and drip proof enclosure of IP 23.

FLY WHEEL & HOUSING:

- Fly wheel SAE 10
- Fly wheel housing SAE 3
- Starter Ring gear

EXHAUST SYSTEM:

- Exhaust manifold
- Flexible steel exhaust Bellow
- Residential Silencer

ELECTRICAL SYSTEM – 12 VOLT DC:

- 12 Volts Starter Motor and 12 Volts Battery charging alternator with integral regulator for DC output
- 12 Volts high coolant temperature trip switch
- 12 Volts low lube oil pressure trip switch
- 12 Volts fuel shut off solenoid
- Starter key / Starter Push

ACOUSTIC ENCLOSURE:

It is made out of CRCA steel sheet fabricated with the following features:

- Design to meet CPCB norms of 75 dB (A) at 1 Mtr. Distance in free field condition as per testing procedure of ISO: 8528 (Part 10) – 1998.
- It is made on sophisticated / special purpose CNC machines for consistency in quality and workmanship.
- Powder coated with superior finish with UV resistance powder coating.
- Insulation materials used are the best in the industry for better sound attenuation

GENERAL DATA OF THE DIESEL ENGINE

Sl. No	Description	15 – 35 KVA				
1	No. of cylinders	3				
2	Engine Model	3255 GMC2	3285 GMC2	3335 TCGM C2	3385 TCIGMC2	3445 TCIGMC2
3	Bore (in mm)	88.9	88.9	88.9	88.9	88.9
4	Stroke (in mm)	101.6	110	101.6	101.6	110
5	Displacement (in cc)	1890	2047	1890	1890	2047
6	Aspiration	Naturally Aspirated / Turbo charged / Turbo Charged Inter Cooled				
7	Compression ratio	19.5+/-0.5:1				
8	Firing Order	1 - 3 - 2				
9	Rotation	Anti-clock wise when viewed from fly wheel end				
10	Cooling System	Liquid Cooled type				
11	Lube oil grade to be used	CI4 15W40				

BATTERY:

12 Volts DC x 1 no. dry uncharged / pre-charged low maintenance lead acid type battery

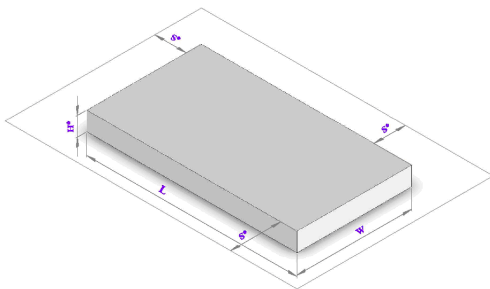
FUEL TANK:

Integral / Sub-base fuel tank for 8 hours operation

FUEL TANK CAPACITY	
KVA	No. of Ltrs.
15-35	100

DG SET FOUNDATION PLATFORM REQUIRED:

DG SET Rating in KVA	Length x Width x Height L X W X H (IN mm)
15-25	2450 x 1330 x 150
30-35	2800 x 1330 x 150



CONTROL PANEL:

Manually operated **Standard** Running Control Panel located within the Acoustic Enclosure, cubical type; powder coated with hinged doors, undrilled bottom gland plate made out of 18 / 16 gauge CRCA sheet provided with the following:

- MCB (3 Pole / 1 Pole)
- **Multi-data Digital Meter (MDM) to read the following parameters:**
- ✓ **ALTERNATOR OUTPUT / ELECTRICALS:** Voltage, Current, Frequency, kwh
- **ENGINE GAUGING:** Lube oil pressure, coolant temperature, engine speed in rpm, engine run hours, DC voltage, engine service hour etc.
- **Current Transformers:**
- ✓ Aluminium busbar of suitable capacity with incoming and outgoing termination
- ✓ Indicating lamp for '**DG Set ON**' & '**LOAD ON**'
- ✓ Set of instruments, fuses / MCBs duly wired and ferruled

KVA	MCB RATING	
	Amps	
	3 Ph	1 Ph
15	20	20
20	32	32
25	32	32
30	40	40
35	50	50

Note to the End-User:

At the DG set installation site, following to be made available:

- Minimum 60% ventilation for free flow of fresh air has to be made available.
- Adequate ventilation for fresh air entry and hot air exit for the D. G. set has to be made available.
- All around space of 3 feet should be maintained.