

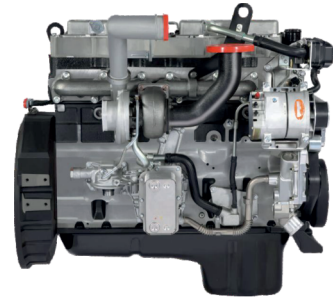
### Product Salient Feature

- Low operating & maintenance cost with service interval of 500Hrs/1 Year
- Wide Service Support Network across PAN India
- Supply to various rugged applications
- Proven engine in industry
- CPCB IV+ Compliant
- Single Window Warranty Policy
- Sales, Service, Spares, Warranty under one umbrella
- Low footprint
- Standard warranty of 2 Years/5000 Hours (whichever is earlier) on complete genset
- 5C Warranty for 5 Years/5000 Hours (whichever is earlier) on five critical components of engine



### Engine

- Mahindra Electronic Engine, in-Line 4 stroke, radiator cooled engine
- CRDI engine with Low fuel consumption
- Dry type air cleaner with service indicator
- First fill of lube oil, coolant & DEF
- Electrical starter motor with soft start system
- Battery charging alternator
- 1 x 12 V or 2 x 12 V DC battery as per requirement



### Alternator

- Brushless type, screen protected, revolving field
- Self-excited alternator conforming to IS/IES 60034-1
- A reliable long life with superior class 'H' insulation
- Higher motor starting capability
- Better transient response
- Ease of maintenance with integrated components and outboard Exciter/Rotating Rectifier
- Lighter and more compact with sealed bearings for lesser maintenance and longer life



### Acoustic Enclosure

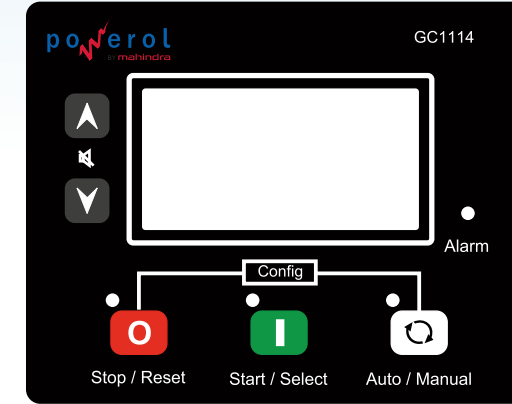
- Specially designed to meet stringent MOEF/CPCB norms
- Designed to operate in extreme climatic conditions in temperatures ranging from -10°C to 55°C without any external aid
- Superlative fade resistant paint can last longer in tough weather conditions
- Draw out type fuel tank for easy maintenance
- Fire retardant acoustic and insulation material (PU Foam/Rockwool) for better safety
- Lowest footprint
- Easy access for serviceable parts
- Pretreatment process with UV resistant powder coating of all parts
- After Treatment System (ATS) for Emission compliance
- Engine and alternator are mounted on a common MS
- fabricated base frame with AVm pads
- Ease in fuel filling (Outside Canopy)

**powerol**  
BY mahindra



### Controller

- SEDEMAC GC111X is a powerful ARM microprocessor based genset monitoring, metering and control system with full graphics LCD display for easy front panel access
- AMF, Manual and Remote start/stop modes for 1-ph & 3-ph gensets
- Backlit and full graphics display with power saving feature
- Engine parameter monitoring-Lube oil pressure, Engine coolant temperature, Fuel Level, Battery voltage, Engine running hours
- AC Alternator parameter monitoring-Voltage L-N & L-L
- Current, kW, kVA (Phase & Total), Frequency, kWh, PF
- Genset Protection:
  - Engine: Low Lube oil pressure, High Coolant temperature, Battery High/Low Volts, Fail to Start, Sensor Failure, Low fuel level, Over speed
  - AC Alternator: Over/Under Voltage, Over/Under Frequency, Loss of AC sensing, Over Current
  - KW Overload, Unbalancing Load
- Maintenance notification based on Engine Run Hour & due date
- Communication: USB port, RS485, CAN
- Fully configurable via front panel



### Control Panel

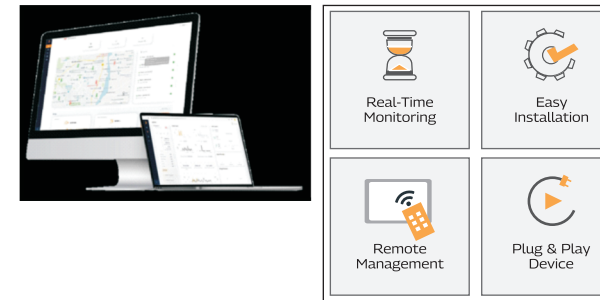
- Powder Coated Control Panel for weather proof and long lasting finish. The control panel consists of the following parts:
  - SEDEMAC GC111X Controller
  - Power Cable/ Bus bars with suitable capacity with incoming/outgoing terminals
  - Indicating lamps for 'Load ON' and 'Set Running'
  - Fuses/MCB's for control circuit safety protection
  - MCCB of suitable rating with short circuit protections
  - Battery Charger

### Optional Accessories

- Cold Starting System (Temperature range upto -20°C)
- AMF/ATS/Sync Controller/Sync Panel
- PMG Alternator, Space heater, RTD/BTD

### Remote Monitoring System

- Powerol generators are equipped with Real time remote monitoring system. (82.5kVA & Above)
- Generator owners can monitor and diagnose their genset or entire fleet of generators from anywhere, anytime ensuring good health and efficiency of the generator.
- All these critical indication alerts & notifications are sent to user mobile or PC
- The generator sets can be monitored using the available web application and mobile (Android and iOS) application from any PC or mobile across the globe.



## TANWAR INDUSTRIES

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JAN. 2025

**mahindra** Rise

**powerol**  
BY mahindra

**POWERING THE GROWTH JOURNEY OF THE NATION**

High Performance Gensets are now

**CPCB IV+ Compliant**

Range available from  
**10kVA to 320kVA**



Health Care

Industries

Real Estate

Infra



Low Maintenance



400 Sales & Service Touch Points



Product Life Cycle Support



Best-in-class Fuel Efficiency



Superior Performance



Excellent Block Loading Capacity



IOT Feature

## Technical Specifications:

Genset Rating [kVA]	10	15	15	20	25	25	30	35	40	45	50	58.5	82.5	100	125	160	180	200	250	320
DG Model	M10DR	MB15DR	M15DR	MB20DR	MB25DR	M25DR	M30DR	MB35DR	M40DR	MB45DR	M50DR	M58.5DR	M82.5DR	M100DR	M125DR	M160DR	M180DR	M200DR	M250DR	M320DR
Power Rating [kWe]	8	12	12	16	20	20	24	28	32	36	40	46.8	66	80	100	128	144	160	200	256
No. of Phases	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	3	3	3	3	3	3	3	3	3	3	3
Output Voltage [V]	230/415	230/415	230/415	230/415	230/415	230/415	230/415	230/415	230/415	415	415	415	415	415	415	415	415	415	415	415
Power Factor (lagging)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Current [A] (1Phase / 3 Phase)	43.5/ 13.9	65.2/20.9	65.2/20.9	87/27.8	108.7/34.8	108.7/34.8	130.4/ 41.7	152.2 / 48.7	173.9 / 55.6	62.55	69.5	81.3	114.67	139	173.75	222.4	250	278	347.5	444.8
Frequency [Hz] / RPM	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500	50/1500
Governing Class	G2	G2	G2	G2	G3	G3	G3	G3	G3	G3	G3	G3	G3	G3	G3	G3	G3	G3	G3	G3
Starting System	12 V - DC electrical	12 V - DC electrical	12 V - DC electrical	12 V - DC electrical	12 V - DC electrical	12 V - DC electrical	12 V - DC electrical	12 V - DC electrical	12 V - DC electrical	12 V DC - electrical	12 V - DC electrical	12 V - DC electrical	12 V - DC electrical	12 V - DC electrical	12 V - DC electrical	12 V - DC electrical	12 V - DC electrical	12 V - DC electrical	24 V - DC electrical	24 V - DC electrical
Fuel Tank Capacity [Litrs]	55	55	75	75	75	75	115	115	115	115	156	156	169	250	250	388	388	388	425	570
DEF Tank Capacity [Litrs]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18L	35L	35L	35L	35L	35L	50L	50L
Genset Dimensions [L x W x H <sup>ss</sup> ] (mm) Approx	1750 x 900 x 1250	1750 x 900 x 1250	1990 x 900 x 1330	1990 x 900 x 1330	1990 x 900 x 1330	1990 x 900 x 1330	2325 x 980 x 1330	2325 x 980 x 1330	2325 x 980 x 1330	2325 x 980 x 1330	2600 x 1130 x 1575	2600 x 1130 x 1575	3190 x 1225 x 1575	3950 x 1350 x 1425	3950 x 1350 x 1425	4200 x 1400 x 1745	4200 x 1400 x 1745	4200 x 1400 x 1745	4750 x 1600 x 2000	4750 x 1600 x 2000
Genset weight to consider Approx[kg]	725/670	690/660	740/725	780/750	815/790	815/815	910/910	915/915	970/970	990	1200	1285	1630	1970	2020	2500	2700	2720	3850	3920
Engine Specifications																				
Make	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra	Mahindra
Model	M2155G1	M2155G2	M3205G1	M3205G2	M3205G3	M3205G4	M3205G5	M3205G5	M4275G1	M4275G1	V4355G1	V4355G2	V4355G4	H4485G2	H4485G1	H6725G2	H6725G3	H6725G4	H6935G1	H6935G2
Fuel System	Mechanical	Mechanical	Mechanical	Mechanical	Electronic/CRDI	Electronic/CRDI	Electronic/CRDI	Electronic/CRDI	Electronic/CRDI	Electronic/CRDI	Electronic/CRDI	Electronic/CRDI	Electronic/CRDI	Electronic/CRDI	Electronic/CRDI	Electronic/CRDI	Electronic/CRDI	Electronic/CRDI	Electronic/CRDI	Electronic/CRDI
Rated Power Output [HP]	16.3	18	22.7	25.2	30.5	35.1	40.0	40.0	51.8	51.8	65.4	75.5	101.3	126	156	199	223	247	310	390
Aspiration	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	Naturally Aspirated	TC	TC	TCIC	TCIC	TCIC	TCIC	TCIC	TCIC	TCIC	TCIC	TCIC	TCIC	TCIC	TCIC	TCIC	TCIC
No. of Cylinders	2	2	3	3	3	3	3	3	4	4	4	4	4	4	4	6	6	6	6	6
Bore x Stroke [mm]	88.9 x 120	88.9 x 120	88.9 x 110	88.9 x 110	88.9 x 110	88.9 x 110	88.9 x 110	88.9 x 110	88.9 x 110	88.9 x 110	96 x 122	96 x 122	96 x 122	105 x 137	105 x 137	105 x 137	105 x 137	105 x 137	116.6 x 146.1	116.6 x 146.1
Displacement [Ltr]	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.7	2.7	3.5	3.5	3.5	4.7	4.7	7.2	7.2	7.2	9.3	9.3
Lube Oil Specification	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	SAE 15W40 CI4+	15W40 CI4+
Total Lube Oil Capacity [Lit]	5	5	6.2	6.2	7	7	7	7	10.5	10.5	8.5	8.5	11.5	13.5	13.5	20.2	20.2	20.2	35	35
Lube Oil Change Period [hrs.]	600 Hrs	600 Hrs	600 Hrs	600 Hrs	600 Hrs	600 Hrs	600 Hrs	600 Hrs	600 Hrs	600 Hrs	600 Hrs	600 Hrs	600 Hrs	500 Hrs	500 Hrs	500 Hrs	500 Hrs	500 Hrs	500 Hrs	500 Hrs
Radiator Coolant Capacity [Lit]	5.5	5.5	5.5	5.5	5.5	9.5	9.5	9.5	9.5	9.5	15	15	19	19	19	25	24	24	31	45
Alternator Specifications																				
Make (at our option)	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent	CG/LS Equivalent
Type																				
Enclosure Type	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23	IP23
Voltage Regulation	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%	+/-1%
Class of Insulation	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
Maximum Unbalanced Load across Phases	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%



**Low Fuel Consumption**



**Low Ownership Cost**



**Long Life Reliable**



**Easy Serviceability**

### Note:

- ❖ All engines & alternators conform to respective IS standards
- ❖ All the genset specifications conform to ISO 8528 standard
- ❖ All Specifications are at Standard NTP operating conditions
- ❖ Above specifications are subject to change without prior notice due to continuous product improvements

<sup>ss</sup> Height Shown without silencer/exhaust tail pipe  
Fuel - High Speed diesel (HSD IS 1460-2005)