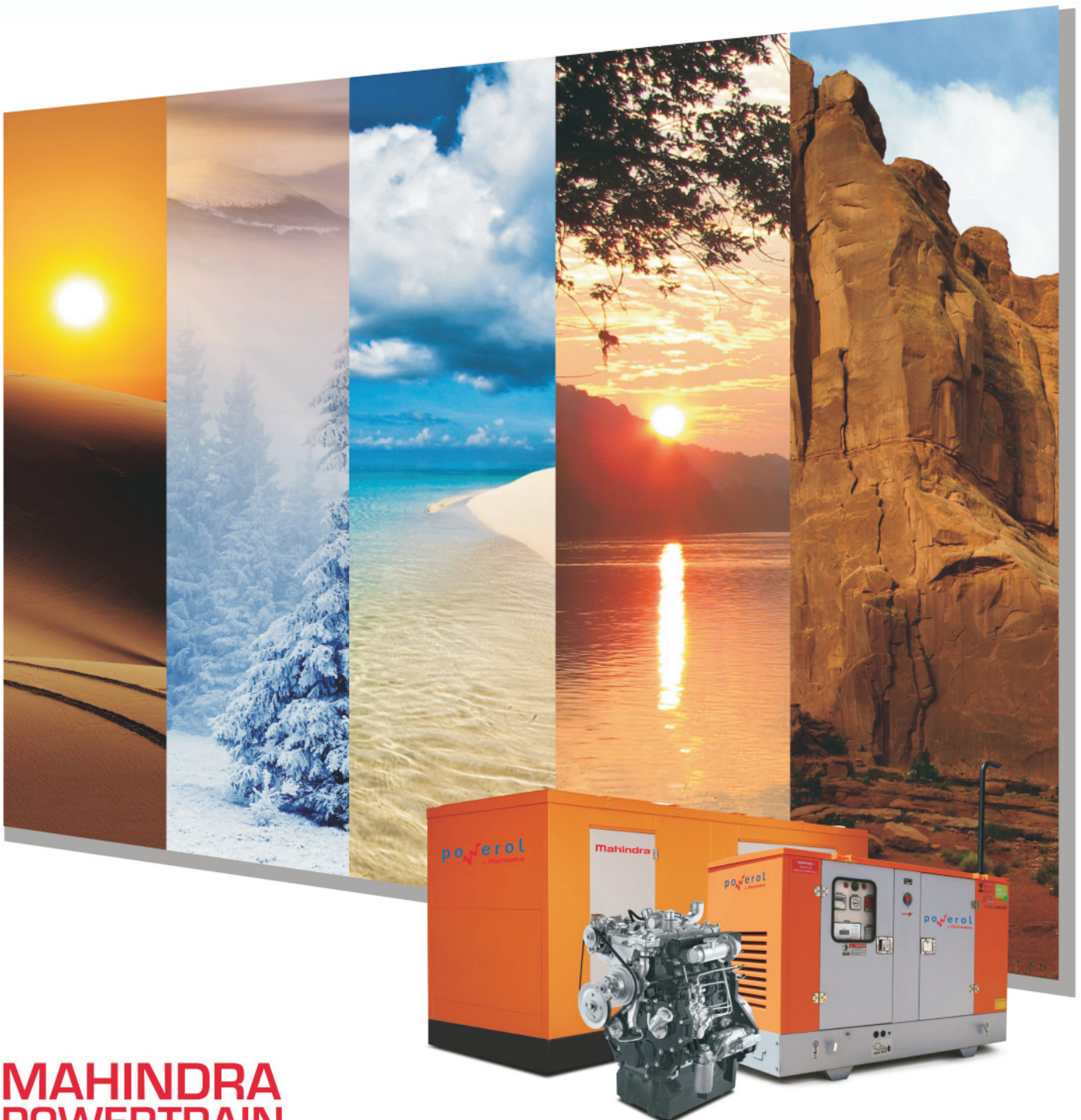


Efficient Diesel Generators for all terrain



Many Companies. One Mahindra.

Our story was cast and hewn in India's steel industry in 1945, and today, we're a US \$16.9 billion global federation of companies. Famous for our rugged and reliable automobiles, some also know us for our innovative IT solutions, and others for our commitment to rural prosperity.

Befitting our size, we operate in 20 key industries, providing insightful and ingenious solutions that are global in their ramifications. Our companies act as a federation, with an optimum balance of entrepreneurial independence and synergy. From Mobility to Rural Prosperity and IT, from Financial Services to Clean Energy and Business Productivity, we're empowering enterprise everywhere.

Headquartered in Mumbai, India, we have an operational presence in over 100 countries and employ more than 200,000 people. And though we operate across vast geographies, our governing spirit of "Rise" binds us as one Mahindra, dictating that we empower people everywhere to not only chart new frontiers, but to conquer them too.

FACTS



THE WORLD'S LARGEST TRACTOR COMPANY
In terms of volumes sold



37%

India market leader in SUV/Pick-up segment in market share (March 2015)



Tech Mahindra
ONE OF INDIA'S LEADING TELECOM SOFTWARE SERVICES EXPORTERS



Awards and Recognition

- Mahindra Reva in the top 50 Most Innovative Companies of the World in the Fast Company ranking 2013
- M&M Board of Directors ranked as one of "India's Best Boards" in the Economic Times - Hay Group survey 2014
- Ranked No. 10 globally in the Hay Group "Best Companies for Leadership" ranking

MAHINDRA - The Group Enabling People to Rise

The Mahindra Group believes in changing conventional thinking and innovatively using all resources to drive positive change in the lives of stakeholders and communities across the world, to enable them to Rise. Our purpose is why we exist and why we come to work every day, infusing our lives with meaning, and galvanizing us to deliver our promise.

WE AIM TO MAKE "MAHINDRA" ONE OF THE 50 MOST ADMIRERD GLOBAL BRANDS BY 2021.

Ten business sectors. One philosophy - Rise.



AEROSPACE & DEFENCE



AFTERMARKET



AUTOMOTIVE



FARM EQUIPMENT



FINANCIAL SERVICES



HOSPITALITY



TWO WHEELERS



PARTNERS



REAL ESTATE



INFORMATION TECHNOLOGY

About Mahindra Powertrain

At Mahindra, we put quality at the forefront of our core values, making quality the key to delivering value for money products to our customers. Mahindra Powertrain Division (PTD) was created to leverage our engineering excellence to deliver world-class powertrain solutions for global OEMs catering to automotive, agriculture, power generation & construction equipment sectors. The division develops products that reflects 'innovation led technology' with a special focus on the 'Customer First' philosophy, which is the foundation of the company.

Mahindra has wide range of engines starting from 0.6 litres to 7.2 litres of diesel and gasoline engines along with powertrains up to 550 N-m range. Mahindra PTD boasts of production capacity of manufacturing over 750,000 engines & 350,000 transmissions per year with 11 state-of-the-art manufacturing plants across India at multiple locations.

Mahindra Research Valley at Chennai, a 125 acre research & development facility at Chennai, houses more than 1500 engineers working to upgrade engines and transmissions to keep abreast with the latest technology around the world. State-of-the-art chassis dyno, vehicle testing, noise testing labs help develop some of the world's most powerful & capable powertrain systems. Mahindra engines conform to the most stringent emission norms by qualifying to meet Euro 5, Euro 6 & Tier IV norms.

Apart from powertrain solutions, Mahindra Powertrain also manufactures diesel generators under the Mahindra Powerol brand name.

About Powerol

Over the years, Mahindra has built a reputation for itself as one of the pillars of the Indian economy. The name Mahindra and Mahindra has become a part of the Indian industrial legends because of its ingenuity in the field of tractors and utility vehicles.

In 2001 Mahindra and Mahindra got itself engaged in the field of power generation through its engines under the brand name Mahindra Powerol that are propelling Diesel Generating sets from rating 5kVA to 200kVA. Trusted by all the Telecom majors in India, Mahindra Powerol is known for its fuel efficiency and quick customer response. It has been just a relatively shorter affair for Mahindra Powerol in the genset industry but the success that it has already tasted shows the level of commitment and customer centric approach that Mahindra Powerol as a brand has taken care while devising its strategies, as can be evinced from its the sale of more than 325,000 DG sets and engines made since 2001. In a little over a decade it has also expanded its footprint in South East Asia, Middle East and Africa.

Mahindra Powerol through its technology & service has taken deep strides in the engine and DG set industry. Mahindra Powerol is the preferred choice of most customers today and is known for delivering peace of mind. Recently by winning Deming Prize from JUSE (Union of Japanese Scientists & Engineers) for TQM, Mahindra Powerol shows its commitment for delivering highest quality products to its customers.



Technical Specifications

Genset Rating (kVA)	10	15	15	20
Duty (Standby/ Prime)	Prime	Stand By	Prime	Stand By
Power Rating @ 100 kWe(in KW)	8	12	12	16
No. of Phases	1 phase /3 phase			
Output Voltage	230V/415V			
Power Factor	0.8			
Current (in Amp.)	43.4/13.92	54.25/17.4	65.1/20.88	80.29/25.76
Frequency (Hz) & RPM	50/1500			
Dimension (canopy) (L X W X H) in mm	1800 x 900 x 1290	1800 x 900 x 1300	1800 x 900 x 1300	2120 x 900 x 1410
Engine Specification				
Model	2185 GM C2	2205 GM C2	3255 GM C2	3285 GM C2
Gross Rated Power at 100% Load kW (hp)*	12 (16.3)	13.5 (18.3)	16.7 (22.6)	18.7 (25.4)
Aspiration	NA	NA	NA	NA
No. of cylinders	2	2	3	3
Bore x Stroke (mm)	88.9 x 110	88.9 x 120	88.9 x 101.6	88.9 x 110
Compression Ratio	19.4 : 1	20.5 : 1	19.5:1	19.5:1
Displacement (cc.)	1365	1489	1891	2047
Fuel	HSD IS 1460: 2005			
Fuel consumption @ 75% load (Lit/hr) **	2.4	2.7	3	3.6
Fuel consumption @ 100% load (Lit/hr)**	2.9	3.6	3.8	4.8
Starting system	12V DC Electrical			
Lube oil specification	SAE15W40 CH4	SAE15W40 CH4	SAE15W40 CH4	SAE15W40 CH4
Total lubrication system capacity (lit.)	5.5	5.5	6	6
Lube oil consumption @ full load	0.15%FC	0.15%FC	0.15%FC	0.15%FC
Total coolant capacity (lit.)	5.5	5.5	6.5	6.5
Length x Width x Height (mm)	902 x 588 x 892	902 x 588 x 892	948 x 588 x 892	948 x 588 x 892
Mean Piston Speed (M/s)	5.5	6	5.08	5.5
Exhaust Temperature(in °C)	425	425	425	425
Unit Dry wt. of Bare Engine (Kg)***	240	240	255	255
Fuel Pump type	Inline			
Overload capacity	10 % overload for 1 hour is allowed after continuous running of 12 hours	Not Applicable	10 % overload for 1 hour is allowed after continuous running of 12 hours	Not Applicable
Alternator				
Make	Crompton			
Alternator frame	G1R160S1B / G1R132MC	G1R160SC/G1R160S1B	G1R160S2C/G1R160S1B	G1R160M2R/G1R160SB
Enclosure Type	IP23			
Voltage regulation	±1%			
Class of insulation	Class H			
Winding Pitch	2/3 Pitch			
Stator Winding	2 Leads / 6 Leads; Double Layer			
Rotor				
Waveform distortion/ Total Harmonic Distortion	NL< 2.5% ; Non distorting balanced linear load < 5 %			
Maximum Unbalanced Load across Phases	25%			
Telephonic Harmonic Factor	As per VDE0875 (N)			
Type	AVR-SR-7/3			

Above specifications are subject to change without notice due to continuous technical developments. All the above engine models conforms to IS 10000 specifications. Engine
 * A tolerance value of +-5% will be applicable on declared power values ** A tolerance of +5% shall be applicable on Fuel consumption values on account of product to
 ***Dry Weight of engine is without flywheel housing, mounting brackets and radiator.

22.5	25	30	40	50
Prime	Prime	Prime	Prime	Prime
18	20	24	32	40
1 phase /3 phase				3 phase
230V/415V				415V
0.8				
97.65/31.32	108.5/34.8	130.8/41.76	173.6/55.68	69.6
50/1500				
2150 x 1030 x 1365	2120 x 900 x 1410	2500 x 1030 x 1376	2500 x 1030 x 1376	2770 x 1150 x 1800
3335 TCGM C2	3385 TCIGM C2	3445 TCIGM C2	4575 TCIGM C2	4725 GM C2
22 (29.8)	25.77 (35)	29.4 (39.9)	38.1 (51.7)	48.12 (65.3)
TC	TCA	TCA	TCA	TCA
3	3	3	4	4
88.9 x 101.6	88.9 x 101.6	88.9 X 110	88.9 X 110	94 x 115
19.2:1	19.5:1	19.5 : 1	19.5 : 1	18.4:1
1891	1891	2047	2730	3191
HSD IS 1460: 2005				
3.99	4.7	5.7	7.3	9.5
4.99	6.2	7.3	9.9	12.4
12V DC Electrical				
SAE15W40 CI4	SAE15W40 CI4	SAE15W40 CI4	SAE15W40 CI4	SAE15W40 CI4
6	6	6	10	8.5
0.15%FC	0.15%FC	0.15%FC	0.15%FC	0.15%FC
7	9.5	9.5	10.5	12
935 x 636 x 872	1015 x 671 x 860	1015 x 671 x 860	1270 x 665 x 950	1371 x 786 x 997
5.08	5.08	5.5	5.5	5.75
450	475	300	400	400
255	255	255	290	370
Inline				
10 % overload for 1 hour is allowed after continues running of 12 hours				
Crompton				
G1R200SF/G1R160SC	G1R200SF/G1R160SC	G1R200SB/G1R160M2A	G1R200SD/G1R200SE	G1R200SB
IP23				
±1%				
Class H				
2/3 Pitch				
2 Leads / 6 Leads; Double Layer			6 Leads; Double Layer	
		NL< 5% - 1PH / NL< 2.5%; Non distorting balanced linear load < 5 %	NL< 5% - 1PH / NL< 2.5%; Non distorting balanced linear load < 5 %	NL< 2.5% ; Non distorting balanced linear load < 5 %
		25%	25 % - 3 PH	25%
As per VDE0875 (N)				
		AVR-SR-7/6 - 1 PH ; AVR-SR-7/3 - 3 PH ;	AVR-SR-7/6 - 1 PH ; AVR-SR-7/3 - 3 PH ;	AVR-SR-7/6

governing as per BS 5514. Alternator : Reputed make conforming to respective IS standards.
product variation due to engine & +3% of tolerance due to alternator product to product variation

Technical Specifications

Genset Rating (kVA)	62.5	75	82.5	100
Duty (Standby/ Prime)	Prime	Prime	Prime	Prime
Power Rating @ 100 kWe(in KW)	50	60	66	80
No. of Phases	3 phase			
Output Voltage	415V			
Power Factor	0.8			
Current (in Amp.)	87	104.4	114.84	139.2
Frequency (Hz) & RPM	50/1500			
Dimension (canopy) (L X W X H) in mm	2770 x 1150 x 1800	3000 x 1150 x 2135	3200 x 1300 x 2290	3200 x 1300 x 2290
Engine Specification				
Model	4905 GM C2	41035 GM C2	82.5 KVA Mech CPCB II	100 KVA Mech CPCB II
Gross Rated Power at 100% Load kW (hp)*	60.2 (81.7)	68.9 (93.6)	74.5 (101.2)	93 (126.3)
Aspiration	TCA			
No. of cylinders	4	4	4	4
Bore x Stroke (mm)	96 x 122	96 x 122	105 x 137	105 x 137
Compression Ratio	19.5:1	16:01	16.9:1	16.9:1
Displacement (cc)	3530	3530	4742 cc	4742 cc
Fuel	HSD IS 1460: 2005			
Fuel consumption @ 75% load (Lit/hr) **	11.3	13.5	13.9	17.3
Fuel consumption @ 100% load (Lit/hr)**	15.3	17.8	18.1	23.1
Starting system	12V DC Electrical	12V DC Electrical	12 V DC Electrical	12 V DC Electrical
Lube oil specification	SAE15W40 CI4	SAE15W40 CI4	15W40 API CI4+	15W40 API CI4+
Total lubrication system capacity (lit.)	8.5	8.5	13.5	13.5
Lube oil consumption @ full load	0.1%FC	0.1%FC	0.1%FC	0.1%FC
Total coolant capacity (lit.)	15	15	19	19
Length x Width x Height (mm)	1493 x 843 x 1210	1493 x 843 x 1210	1277 x 861 x 1246 (LWH with Radiator)	1277 x 861 x 1246 mm (LWH with Radiator)
Mean Piston Speed (M/s)	6.1	6.1	6.85	6.85
Exhaust Temperature(in °C)	400	400	430	553
Unit Dry wt. of Bare Engine (Kg)***	380	380	410	410
Fuel Pump type	Inline	Inline	Rotary	Rotary
Overload capacity	10 % overload for 1 hour is allowed after continues running of 12 hours			
Alternator				
Make	Crompton			
Alternator frame	G1R200SC	G1R200MB	G1R200MD	G1R250SB
Enclosure Type	IP23			
Voltage regulation	±1%			
Class of insulation	Class H			
Winding Pitch	2/3 Pitch			
Stator Winding	6 Leads; Double Layer			
Rotor				
Waveform distortion/ Total Harmonic Distortion	NL < 2.5% ; Non distorting balanced linear load < 5 %			
Maximum Unbalanced Load across Phases	25%			
Telephonic Harmonic Factor	As per VDE0875 (N)			
Type	AVR-SR-7/6			

Above specifications are subject to change without notice due to continuous technical developments. All the above engine models conforms to IS 10000 specifications. Engine g

* A tolerance value of +5% will be applicable on declared power values ** A tolerance of +5% shall be applicable on Fuel consumption values on account of product to

***Dry Weight of engine is without flywheel housing, mounting brackets and radiator.

125	160	180	200
Prime	Prime	Prime	Prime
100	128	144	160
3 phase			
415V			
0.8			
174	222.72	250.56	278.4
50/1500			
3750 x 1300 x 1750	3790 x 1300 x 1877	4500 x 1500 x 1878	4500 x 1500 x 1878
125 KVA Mech CPCB II	160 KVA Mech CPCB II	180 kva Elec CPCB II	200 kva Elec CPCB II
114.8 (156)	146.5 (199)	163 (221)	180 (244.5)
TCA			
6	6	6	6
105 x 137	105 x 137	105 x 137	105 x 137
16.9:1	16.9:1	16.9:1	16.9:1
7118 cc	7118 cc	7118 cc	7118 cc
HSD IS 1460: 2005			
21.4	27.8	28.7	33.3
28	36.7	38.2	40.8
24 V DC Electrical	24 V DC Electrical	24 V DC Electrical	24 V DC Electrical
15W40 API CI4+	15W40 API CI4+	15W40 API CI4+	15W40 API CI4+
20.2	20.2	20.2	20.2
0.1%FC	0.1%FC	0.1%FC	0.1%FC
22.5	25	24	24
1727 x 932 x 1274.4 mm (LWH with radiator)	1727 x 932 x 1534.4 (LWH with radiator)	1727 x 932 x 1794.4 (LWH with radiator)	1727 x 932 x 1794.4 (LWH with radiator)
6.85	6.85	6.85	6.85
570	580	608	610
600	600	610	610
Rotary	Rotary	HPCR	HPCR
10 % overload for 1 hour is allowed after continues running of 12 hours			
G1R250SD	Crompton G1R250MB		Crompton G1R250LD
	IP23		IP23
	±1%		±1%
	Class H		Class H
	2/3 Pitch		2/3 Pitch
	6 Leads; Double Layer		6 Leads; Double Layer
	NL < 2.5% ; Non distorting balanced linear load < 5 %		NL < 2.5% ; Non distorting balanced linear load < 5 %
	25%		25%
	As per VDE0875 (N) AVR-SR-7/6		As per VDE0875 (N) AVR-UVR-7

governing as per BS 5514. Alternator : Reputed make conforming to respective IS standards.
product variation due to engine & +3% of tolerance due to alternator product to product variation



Mahindra & Mahindra Ltd.
Mahindra Powertrain Division
Gate No. 2, Akurli Road, Kandivali (E),
Mumbai - 400 101, Maharashtra, India.

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