



Company Introduction

- India’s leading engineering company with over 160 years of rich legacy
  - Core Competencies: Generator Sets, Pump Sets, Diesel / Petrol Engines, and Farm Equipments.
  - Manufacturing 5 lakh engines annually.
  - More than 85% of diesel 3-wheelers in India, run on Greaves engines
- 5 state-of-the-art manufacturing facilities spread across the country, and excellent infrastructure for R & D.
  - Significant Strengths: Technology. Value, Reach.
  - Strong team of more than 300 R&D professionals.
  - Extensive Marketing and Service Network: Over 1200 sales & service centres across India.
  - Global footprint, with local presence in SAARC, Africa and Middle-East.

Powering Lives



Driving Business



Power Gen Business

- Over 5 decades of experience in generator sets. 1 Lakh+ Gensets population in Operations
  - New Genset Manufacturing facility at Chakan with annual capacity of more than 10000 Gensets
  - Fuel-efficient, rugged and reliable.
  - Total solutions by single point of contact for sales, service & spare parts: anytime, anywhere.
- Testing facility equipped with sophisticated equipment is among the best in the industry and can test engines up to 2 MW.
  - State-of-the-art manufacturing facilities at Chakan and Chinchwad Pune for multi-cylinder / higher HP engines and gensets.
  - Segments we serve: Real Estate, Malls, Hospitals, Hotels, Industries, Manufacturing, Infrastructure, Engineering, Dairy, Petroleum, Telecom, Food Processing, Textile & more

Powering Missons



Application and More



DG Set Technical Specifications \*\*\*

Genset Model	GPWII-P1I-10E	GPWII-P1I-15X	GPWII-P1I-20X	GPWII-P1I-25E	GPWII-P1I-30X	GPWII-40A	GPWII-45A	GPWII-P1I-45	GPWII-P1I-50	GPWII-P1I-62.5	GPWII-P1I-75	GPWII-P1I-82.5	GPWII-P1I-100	GPWII-P1I-125	GPWII-P1I-160	GPWII-P1I-180	GPWII-P1I-200	GPWII-P1I-250	GPWII-320	GPWII-400	GPWII-500
Power Rating (kVA/kW)	10 / 8*	15/12	20/16	25/20	30/24	40/32	45/36	45/36*	50/40	62.5/50	75/60	82.5/66	100/80	125/100	160/128	180/144	200/160	250/200	320/256*	400/320*	500/400
No. of Phases	1 / 3	1 / 3	1 / 3	1 / 3	1 / 3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Current @ 0.8 PF (Amps)	43.5/13.9	65.2 /20.9	87.0/27.8	108.7/34.8	130.4/41.7	55.6	62.6	62.6	69.6	87.0	104.3	114.8	139.1	173.9	222.4	250.2	278.0	347.5	444.8	556.0	695.0
Power Factor	0.8 OR 1	0.8	0.8	0.8	0.8	0.8	0.8	0.8 / 1	0.8	0.8	0.8	0.8	0.8	0.8	0.8/1	0.8	0.8	0.8	0.8	0.8/1	0.8
Battery Rating (AH)	88AH	88AH	88AH	88AH	88AH	88AH	88AH	88AH	88AH	88AH	88AH	88AH	88AH	88AH	120AH	120AH	120AH	2 X 180AH	2 X 180AH	2 X 180AH	2 X 180AH
Integral Fuel Tank Capacity (Ltrs)	50	50	75	75	75	100	100	100	150	150	150	150	350	350	360	360	360	565	810	990	990
Engine : 1500 RPM, with Premix coolant - 50:50 of Ethylene Glycol and DM water																					
Engine Model	G-12-II	G-15-II	G-20-II	G-25-II	G-30-II	G-40-II	G-40-II	3G11TAG25	3G11TAG25	3G11TAG25	3G11TAG26	3G11TAG26	4G11TAG25	4G11TAG26	6G11TAG26	6G11TAG29	6G11TAG29	D3V6TAG21	D3V8TAG21	12V14TAG23	12V14TAG23
Aspiration	Natural	Natural	Natural	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled	Turbocharged & aftercooled
No. of Cylinders	2	2	3	3	3	4	4	3	3	3	3	3	4	4	6	6	6	6	8	12	12
Compression Ratio	17.5	17.5	17.5	17.5	17.5	17.5	17.5	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	17	17
Bore x Stroke (mm)	91X110	95X110	91X110	91X110	91X110	91X110	91X110	108X133	108X133	108X133	108X133	108 x 133	108 x 133	108 x 133	108X133	108X133	108X133	128X130	128X130	115X135	115X135
Cubic Capacity (Ltrs)	1.43	1.56	2.14	2.14	2.14	2.86	2.86	3.655	3.655	3.655	3.655	3.655	4.87	4.87	7.31	7.31	7.31	10.03	13.38	16.8	16.8
Power (HP)	18.0	21.6	25.2	33.6	42.0	58.0	58.0	80.2	80.2	80.2	101.3	101.3	126.4	155.0	196.5	243.1	243.1	308.6	386.1	603.7	603.7
Power (kW)	13.3	15.9	18.5	24.7	31.2	42.8	42.8	59.0	59.0	59.0	74.5	74.5	93.0	114.0	144.5	178.8	178.8	227.0	284.0	444.0	444.0
Governing	Mech. / G2	Mech. / G2	Mech. / G2	Mech. / G2	Mech. / G2	Mech. / G2	Mech. / G2	Mech. / G2	Mech. / G2	Mech. / G2	Mech. / G2	Mech. / G2	Mech. / G2	Mech. / G2	Mech. / G2	Mech. / G2	Mech. / G2	Electronic /G3	Electronic /G3	Electronic /G3	Electronic /G3
Starting System	12V ESE	12V ESE	12V ESE	12V ESE	12V ESE	12V ESE	12V ESE	12V ESE	12V ESE	12V ESE	12V ESE	12V ESE	12V ESE	12V ESE	12V ESE	12V ESE	12V ESE	24V ESE	24V ESE	24V ESE	24V ESE
Lube Oil Sump Capacity (Ltrs) with filter	5.5	5.5	6.5	6.5	6.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	10	10	17	17	17	30	40	50	50
Lube oil Specification	15W40	15W40	15W40	15W40	15W40	15W40	15W40	15W40	15W40	15W40	15W40	15W40	15W40	15W40	15W40	15W40	15W40	15W40	15W40	15W40	15W40
	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves	Greaves
	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm	Maxtherm
	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4	API CI4
Alternator: AVR Controlled, Brushless Alternator with 3ph, 50Hz ,voltage range-415V-440 volts. IP23 Protection. Single Phase Voltage 230 Volts. Insulation class H with temperature rise restricted to class H limits.																					
Fuel Consumption																					
100% Load (LPH)	3.0	3.9	5.0	6.3	7.4	9.0	11.1	10.7	12.1	14.9	17.5	19.1	23.6	28.6	36.5	40.2	44.8	58.2	76.5	84.7	107.9
75% Load (LPH)	2.3	2.8	3.8	5.0	5.9	7.0	8.6	8.5	8.9	11.0	12.6	14.0	17.4	20.8	27.2	30.2	33.0	42.3	57.7	63.6	82.5
Genset Installation																					
3 & 1/2 Core cable, Al. Armoured (mm <sup>2</sup> X runs)	10 X 1	16 X 1	25 X 1	25 X 1	25 X 1	35 X 1	35 X 1	35 X 1	50 X 1	70 X 1	95 X 1	95 X 1	150 X 1	95 X 2	120 X 2	150 X 2	185 X 2	70 X 4	120 X 4	185 X 4	240 X 4
3 & 1/2 Core cable, Cu. Armoured (mm <sup>2</sup> X runs)	2.5 X 1	4 X 1	4 X 1	6 X 1	10 X 1	16 X 1	25 X 1	25 X 1	25 X 1	35 X 1	50 X 1	70 X 1	95 X 1	120 X 1	70 X 2	95 X 2	120 X 2	95 X 3	150 X 3	150 X 4	185 X 4
Exht. Pipe Size (NB)	2" NB	2" NB	2" NB	2"NB	2" NB	2" NB	2" NB	2" NB	3" NB	3" NB	3" NB	3" NB	4" NB	4" NB	4" NB	5" NB	5" NB	5" NB	5" NB	5" NB	5" NB
Dimensions																					
L x W x H (mm)	1420 X 930 X 1242	1420 X 930 X 1242	1650 X 930 X 1242	1650 X 930 X 1242	1650 X 930 X 1242**	2350 X 950 X 1380	2350 X 950 X 1380	2500 X 1150 X 1535	2500 X 1150 X 1535	2500 X 1150 X 1535	2800 X 1150 X 1540	2800 X 1150 X 1540	3000 X 1350 X 1884	3000 X 1350 X 1884	3800 X 1350 X 1900	4000 X 1600 X 1900	4000 X 1600 X 1900	4500 X 1800 X 2200	5000 X 2000 X 2220	5600 X 2000 X 2300	5600 X 2000 X 2300
Weight (Kg) (Approx.)	595	660	810	860	945	1260	1490	1210	1210	1230	1270	1270	1600	1610	2150	2295	2300	4050	4300	5490	5610

\*Gensets for PF = 1 can be used.  
\*\*For 30 kVA Single Phase (Genset Model is - GPWII-30) Dimensions(mm) are -2300 X 950 X1360 .  
¹ G3 Governing is also available From 10kVA to 200kVA engine fitted with Electronic Governor , as an Option.  
All Genset Specifications as per ISO 8528

\*\*\* Due to the Policy of continual Improvements , the specifications may change without prior notice.



## Engine Features and Benefits

- Very low, basic engine noise level. Contributes to bettering the statutory MoEF stipulated noise level of 75 dB(A) for the DG Set.
- Lowest exhaust emissions. Meets the next generation CPCB norms.
- Individual cylinder head design. Savings on maintenance, cost and time (45kVA onwards).
- Modular design. High degree of commonality of hardware and components over entire range.
- Easy accessibility of all maintenance parts.
- Deep skirt crank case design. High degree of rigidity and ruggedness.
- Higher reserve margins in the lube and cooling circuits gives following benefits –
  - Increased wear life & extended Overhauling periods
  - Hassle-free operation in Low and high ambient temperatures from 0°C. to 50°C.
- Wet liner construction eliminates time consuming and expensive block re-boring during overhauls.
- Gear-driven water pump (45 kVA onwards) improves the reliability of the cooling system.
- Engines with Electronic Governor from 250-500 kVA as Std, and other range optional.

## DG Sets - State-of-the-art Acoustic Enclosures

- Smallest Footprint through Most compact acoustic enclosures.
- Lowest vibrations - most suitable for roof-top installations.
- Enclosures Louvers & Radiators are designed to ensure safe operations upto 50°C.
- Silencers inside upto 200 kVA Gensets lowering the height of the gensets.
- Enclosures & doors are designed for ease of Service, Access & Maintenance of DG set & Radiator
- CRCA steel Material processed with CNC punching/laser cutting machines to ensure precision.
- Surface treatment with 9 tank process to give high retention of surface finish
- Fully automatic, Pure Polyester and UV resistance powder coating process for outdoor installations and corrosive environments.
- Acoustic insulation with Fire retardant Foam/Rockwool material conforming to IS 7888/IS 8183.
- Water and lube oil drain outlets located on the outer surface - Leading to ease of maintenance and cleanliness.
- Toughened glass inspection window for clear view of control panel.
- Green passivated/stainless steel fasteners and hardware for trouble-free operation.

## Integrated DG Set Controller

The unique integrated DG Set Controller incorporates both engine and alternator parameters in one console. This micro-processor based controller provides the most exhaustive display of critical engines and alternator performance parameters with alarm and safety features.

Display Parameters	Audio-Visual Warning	Shut-down with Audio-Visual Annunciation
<b>Engine:</b> RPM, Oil Pressure, Coolant Temp, Fuel level %, Battery Voltage. <b>DG set:</b> Hours run, Gen. volts ( L-N, L-L) Gen. Current (Amps)., kW, PF & kWh.	Low oil pressure, High coolant temperature, Low battery voltage, Low fuel level	Low oil pressure, High coolant temperature, Engine over speed, Engine under speed, Under voltage, Over voltage, Over frequency, Under frequency, Low water level*, High canopy temp*

\*Applicable for 160kVA and above



**DG Set Controller with Remote Monitoring Feature (Optional)**

The controller has data logging facility for the latest 50 faults recorded and option for RS232 / RS485 connectivity for remote monitoring / BMS integration.

### Scope of Supply

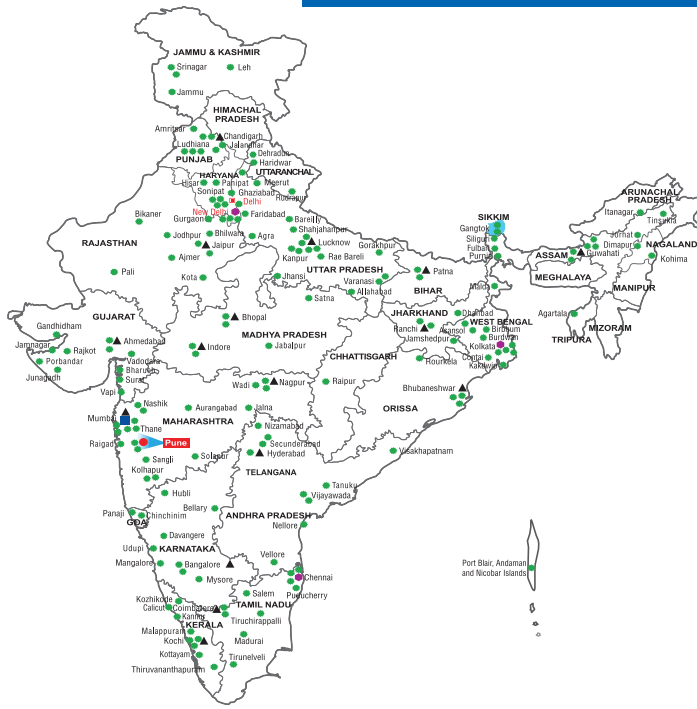
The Ready to Use DG Set is supplied with the following standard accessories:

- In-built control panel with complete internal wiring/cabling
- Residential silencer - mounted with complete exhaust piping
- Right size Lead Acid Fully charged & tested battery
- In-built fuel tank to ensure Min. 8 Hrs. run @ 80% Load

### Optional

- Electronic governor in lieu of mechanical governor upto 200kVA
  - AMF/ATS panel with auto change-over features
- Auto / Manual synchronising panels
- Trailer / trolley mounted mobile sets
  - Single phase alternator in lieu of 3 phase
  - Genset controller with remote monitoring feature
  - Heavy duty air filter
  - Cold starting kit for Engine
  - PMG, RTD/BTD, space Heater to Alternator

## Sales and Service Network



- Head Office
- Corporate Office
- ▲ Branch Office
- ◆ Regional Office
- Greaves Dealer Outlet

## Our Esteemed Customers



### Greaves Cotton Limited

#### Auxiliary Power Business

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Email: greavespower.sales@greavescotton.com | Website: www.greavescotton.com

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Tel: +91-022-6221 1700 | Fax: 022- 3381 2799

#### Head Office:

Pune - Old Mumbai - Pune Highway, Anna Sahib Nagar, Chinchwad, Pimpri-Chinchwad, Pune, Maharashtra 411019.

#### Delhi Office:

Park End, Shop No. 51, Metro Pillar 100, Swasthya Vihar, Delhi, 110092.

#### Chennai Office:

Bharati Vilas, 2<sup>nd</sup> Floor, 26B Jawaharlal Nehru Salai, Ekkattuthangal, Guindy Industrial Estate, Chennai 600032.

#### Kolkata Office:

Victoria Park, 09th Floor, Block GN, Plot, 37/2, Sector - V, Salt Lake, Kolkata 700 091. West Bengal, India.

ISO 9001:2008 certified by



ISO 14001:2004 certified by



#### Greaves Channel Partners

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# POWERING PROGRESS



**Diesel Generator Set**  
2.5 kVA to 1250 kVA



### FEATURES

- Superior Aesthetics & Paint Finish
- Best TCO-Total Cost of Ownership
- Greaves Factory Built Gensets
- Compact Size with Lowest Footprint
- Single Window: 3S

**GREAVES**  
Auxiliary Power Business

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