

# POWER TO YOU



Low  
operational cost



Reduced  
emissions



Best-in-class  
product support



Prime rating Gensets



All-weather  
performance



Compact design



Genset Monitoring System at  
your finger tips



**697**  
ENGINE


**TATA MOTORS**  
GENSETS



# TATA MOTORS GENSETS

## ENGINE FEATURES:

Tata Motors sets the standard with prime-rated Generator engines, offering a current range from 25 to 125kVA. Tata Motors engines are a testament to reliability and durability and are known for their unmatched performance. Tata Motors offers proven technology, thanks to thousands of engineers working round the clock to offer the most fuel-efficient engines resulting into the lowest cost of ownership at the Genset level.



All Tata Motors CPCBIV+ Gensets have CRDI engines at their heart of operations. Common rail direct injection technology, popularly known as CRDI, provides a significant upgrade over traditional mechanical fuel injection systems. CRDI provides precise fuel control, multiple injections, enhanced performance & durability, lower noise and reduced emissions.

## Furthermore, Tata Motors Gensets offer the following:



Best in-class block loading capability



High altitude operation capability



Lower engine noise facilitates optimum canopy size and improved acoustics



Proven and easy-to-integrate switches and sensors



Competitive fuel consumption



Dry-type air cleaner and conventional fuel filter with water separation to ensure engine durability



Pan India service support and easy spares availability



Low-cost spare parts with a minimum requirement of special tools



# GENSET CONTROLLER

Genset controllers display a host of Genset parameters and put all controls at your fingertips.

## MONITORING FEATURES

Phase voltage and current, Frequency, Genset kVA, kW, kWh, Power factor, Lube oil pressure, Engine temperature, RPM, Run hours, Fuel level, Auto/Manual stop, Battery charge condition, etc.

## DIAGNOSTIC FEATURES

- Battery charging failure, Over/Under speed, Over current, Over/Under voltage, Over kW, Phase seq., Phase missing, Mains under voltage, Low fuel level.
- Low lube oil pressure, High engine temperature, Low/High battery voltage.





# TELEMATICS: TATA MOTORS GENSETS RMS



In an era defined by efficiency, reliability, and data-driven decision-making, we are thrilled to present our cutting-edge Smart Diesel Generator Monitoring Solution.

Gone are the days of guesswork and reactive maintenance when it comes to your generator systems. Our innovative solution is engineered to revolutionize the way you monitor, manage, and optimize your diesel generators.



## Here's how our solution can benefit customers

**Power, Current & Voltage Measurement:** Real-time visibility into crucial generator parameters, accurately measuring and reporting Power, Current, and Voltage output.

**Run Time Tracking:** Run-time tracking to monitor generator operational hours, essential for optimal performance and timely maintenance scheduling.

**Maintenance Schedule & Notifications:** Maintenance schedules based on operational hours, sending timely notifications to help keep generators in optimal condition and prevent downtime.

**Fuel Levels & Consumption Trends:** Real-time fuel level monitoring and consumption trend analysis. Customers can optimise fuel usage and budget effectively with detailed information and historical data.

**Reports & Alarms:** Comprehensive reporting capabilities to generate reports from collected data. Alarms and alerts can be configured to notify customers about anomalies related to power, run time, maintenance, and fuel levels.

# ACOUSTIC ENCLOSURE

- ▶ Specially designed to meet stringent CPCB IV+ norms of 75 dBA @ 1mtr as per ISO 8528 standard
- ▶ -10 to 50 °C of ambient temperature Genset operating capabilities at rated load
- ▶ The acoustic enclosure is made of a metal base frame painted in black
- ▶ High-quality noise absorbent and fire-retardant grade acoustic Insulation material (Foam) complying with IS 8183
- ▶ Two-point top lifting provision for the canopy ensures easy handling at the customer site
- ▶ Air inlet & exhaust louvers are specially designed to operate at rated load





# SUMMARY OF NEW FEATURES & ENHANCEMENTS

## TCO

- Best in-class running cost per unit of electrical power.
- Improved fuel efficiency over the CPCBII range.

## Power

- 4SP – 42 KW → 55 KW (Prime rating)
- 497 – 67 KW → 76 KW (Prime rating)
- 697 – 115 KW → 118 KW (Prime rating)

## Customer Support

- Technical support for system integration and product validation.
- TML world-class vendors & pan India service centres equipped and skilled to handle CRS, SCR systems.

## Robustness

- Best-in-class Adblue tank with 25 liters capacity.
- Simplified Inline EAT system.
- FI system is capable of meeting environmental conditions for off-highway applications.
- Fuel filtration system compatible with BSVI diesel.
- Relevant learnings during auto BSVI development & validation carried over for CPCB4+ development.

## Electronic Interface

- Package protected for Genset synchronization feature.
- CAN-based engine diagnostics.
- Fault code display on Genset controller.
- Software monitoring and protection features to avoid any unintended usage.
- Real-time data acquisition and end-user display (operating hours, fuel used per hour, etc.)





## REAL ESTATE

Since power outages are common in cities and rural areas, a majority of commercial and residential real estate complexes, and residential bungalows rely on Tata Motors Gensets for power backups. The low noise, small footprint and the low emissions of Tata Motors Gensets make them suitable for use near residential areas.



## POWERING KEY SECTORS

Many infrastructure and construction sites may be in off-grid remote areas. A number of machineries such as welders, chainsaws, hand drills, air compressors, etc. present onsite need motive power. In projects undertaken at night, sufficient lighting is another necessity. Also, if administrative staff needs computers, they can also be powered onsite. And hence, Tata Motors Gensets are the trust of many organisations for their infrastructure needs.



Road



Metro



Construction Site





## RENTAL

Renting is popular among businesses as rental expenditure can be written off as revenue expenditure in the same year, whereas owning the Genset would mean incurring capital expenditure that can be amortized in the future years. Many businesses, thus, use renting as a strategic tool. Tata Motors Gensets are known for their fuel efficiency, and are best-suited for rental application.



Mobile Gensets



## HEALTHCARE & SERVICE INDUSTRY

The nature of healthcare industry requires uninterrupted power supply, failing which lives would be lost. Similarly, uninterrupted power supply is critical for the operations of the service industry. Our reliable & durable Tata Motors Gensets, help these industries maintain their commitment to clients.



Hospital



Showroom



Hotel





## TELECOM

Communication is very important in today's world. To keep distant communication seamless, it requires uninterrupted power backup in remote places. Tata Motors Gensets are the ideal choice, considering the after-sales support available at remote areas through our countrywide workshops to provide service backup.



## OFFICES & WAREHOUSES

In any office, a power failure can not only cause interrupted service delivery and losses in revenue, but also IT challenges, security risks, and safety issues affecting customer trust, regardless of industry. Warehouses across any nation are critical to the supply chain and power failures can have far-reaching consequences. Hence, Tata Motors Gensets are preferred for this industry application.



Warehousing



Bank



Corporates



## GENSET SPECIFICATIONS

Genset models		
Power rating kVA	100	125
Duty	Prime	
Power rating kWe	80	100
Power factor	0.8 (lagging)	
Voltage	415 V	
Current	139 Amp	174 Amp
RPM/Frequency	1500 RPM/50 Hz	
DG set noise at 1 meter	< 75 dBA	

## CANOPY DIMENSION

Length (mm)^	3300
Width (mm)^	1250
Height (mm)^	1920
Weight (kg)^	2160

## ALTERNATOR

Enclosure type	IP23
Class of insulation	Class H
Voltage regulation	+/-1%
Maximum unbalanced load across phases	Up to 25%

## RATING DEFINITIONS

Prime Power (PRP): Applicable for supplying power to varying electrical load for unlimited hours with 10% overload capability. Prime Power (PRP) is in accordance with ISO8528.

## ENGINE SPECIFICATIONS 697

Model	697
Rated power (kW)	118
Horse power	160
Performance class	ISO 8528
Governing class	G3
Displacement	5675
Number of Cylinders	6
Bore X Stroke	97 x 127
Rated speed (RPM)	1500
Aspiration	Turbocharger Intercooler
Ambient temperature range	-10 to 50 deg C
Fuel system	CRDI
Lube oil change period	500
Total lubrication system capacity (litre)	16
Total coolant capacity including engine & radiator (litre)	23
DEF capacity (litre)	25
Starting system	12V
Fuel	High Speed Diesel
Lube oil	CK4 15W40

Disclaimer: Specifications may vary at Genset level.





**FOR MORE DETAILS & ENQUIRIES CONTACT US**

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