



# Diesel Generators



## Output Ratings

|                     |                  |
|---------------------|------------------|
| Generator Set Model | RT-125           |
| Fuel - HSD          | Prime            |
| 380 - 415V, 50Hz    | 125 kVA / 100 Kw |

Ratings at 0.8 power factor

## Definitions

### Standby Rating

The Standby Power rating is only applicable for emergency and standby applications where the generator set serves as the back up to the normal utility source. In installations served by unreliable utility sources (where outages last longer or occur more frequently), where operation is likely to exceed 200 hours per year, the prime power rating should be applied. The Standby Power rating is only applicable for emergency and standby applications where the generator set serves as the back up to the normal utility source. (as defined in ISO 8528-3)

### Prime Rating

These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

## Standard Reference Conditions

Ratings in accordance with ISO 8528. All engine performance data based on the above mentioned maximum continuous ratings at Standard Reference Conditions 27°C Air Inlet Temp, 100 Mtrs. A.S.L. 30% relative humidity. Fuel Consumption data at full load with diesel fuel having specific gravity of 0.85 & conforming to BS2869: 1998, Class A2

## Engine Technical Data

|  |                             |
|--|-----------------------------|
| No. of Cylinders/Alignment:                | 6 in Line                   |
| Cycle:                                     | 4 Stroke                    |
| Bore/Stroke: mm (in)                       | 97.0 (3.8) / 128.0 (5.0)    |
| Induction:                                 | Turbo Charged & Intercooled |
| Cooling Method:                            | Coolant                     |
| Governing Type:                            | Mechanical                  |
| Frequency Regulation, no Load to full load | A1                          |
| Frequency Regulation, Steady State         | ISO 8528 G1                 |
| Compression Ratio:                         | 17.5:1                      |
| Displacement: l (cu.in):                   | 5.7 (347.8)                 |
| Engine Power kW (BHP)                      | 156                         |
| Air Cleaner Type                           | Dry Type                    |
| Engine Electrical System:                  |                             |
| -Voltage/Ground                            | 12/Negative                 |
| -Battery Charger Amps                      | 35/40                       |
| Piston Speed, m/sec (ft./sec.)             | 6.4 (20.9)                  |

## Ratings and Performance Data

|                             |                             |
|-----------------------------|-----------------------------|
| Engine Make & Model         | TATA697TC                   |
| Alternator Manufacturer     | Stamford                    |
| Generator Control Unit      | Woodward EasyGen 600        |
| Base Frame                  | Heavy Duty Fabricated Steel |
| Canopy/ Acoustic Enclosure  | TATA                        |
| Circuit Breaker Type/Rating | 3 Pole MCCB                 |
| Frequency                   | 50 Hz                       |
| Engine RPM                  | 1500                        |

## Available Options

TATA offers a range of optional features to tailor our generating sets to meet your power needs. Options include:

- 1- Upgrade to trailer Mounted Dgset for our rental & Emergency Power supply to Customers
- 2- A wide range of Sound Attenuated Containers
- 3- A variety of generating set control and synchronising panels
- 4- Additional alarms and shutdowns
- 5- A selection of exhaust silencer noise levels

For further information on all of the standard and optional features

for this product please contact your local Dealer or write to us at [marketing@rishabhengineering.com](mailto:marketing@rishabhengineering.com)

## Dimensions and Weights of Engine

| Length (L)  | Width (W)  | Height (H) | Dry | Wet |
|-------------|------------|------------|-----|-----|
| mm (in)     | mm (in)    | mm (in)    | kg  | kg  |
| 1236 (48.6) | 700 (27.5) | 955 (37.5) | 450 | 470 |

Dry = With Lube Oil

Wet = With Lube Oil and Coolant

## Sound Level

|                  |                               |   |                               |
|------------------|-------------------------------|---|-------------------------------|
| Open Type Genset | 102 db at 1 Mtr. In open area | Silent Type Genset with Acoustic Enclosure. | <75 db at 1 Mtr. In open area |
|------------------|-------------------------------|---|-------------------------------|

Ratings in accordance with ISO 8528, ISO 3046, IEC 60034, BS5000

and NEMA MG-1/22. Dgset picture may include optional accessories.

## Air Systems

|   |                     |
|---|---------------------|
| Air Filter Type:  | Replaceable Element |
| Radiator-cooled cooling air, m <sup>3</sup> / min       | 185                 |
| Combustion Air kg/hr                                    | 375                 |
| Heat rejected to ambient air :                          |                     |
| Engine, kW (Btu/mi n.)                                  | 5.65 (321.57)       |
| Restriction: kPa (in H2O)                               | 1.5 (6)             |
| Generator, kW (Btu/mi n.)                               | 8.6 (492)           |
| Air density, kg/m <sup>3</sup> ( lbm/f t <sup>3</sup> ) | 1.2 (0.075)         |

### Performance

|                                     |              |
|-------------------------------------|--------------|
| Engine Speed: rpm                   | 1500         |
| Weight (includes lube oil): kg (lb) | 470 (1036.1) |

### Alternator Physical Data

|                            |               |
|----------------------------|---------------|
| Manufactured for TATA by:  | Stamford      |
| Model:                     | UCI274V1      |
| No. of Bearings:           | Single Sealed |
| Insulation Class:          | H             |
| Winding Pitch Code:        | 2/3 (M)       |
| Wires:                     | 4             |
| Ingress Protection Rating: | IP23          |
| Excitation System:         | SHUNT         |
| AVR Model:                 | NA            |

### Alternator Operating Data

|                                    |   |
|------------------------------------|---|
| Voltage Rating, V                  | 415   |
| Voltage Regulation (steady state): | +/- 1%  |
| Wave Form NEMA = TIF:              | 50  |
| Wave Form IEC = THF:               | 2%  |
| Total Harmonic Content LL/LN:      | <6.0%   |
| Radio Interference:                | Suppression is in line with European Standard EN61000-6 |
| Radiant Heat: kW (Btu/min)         | 50 Hz 3.8 (216)   |

### General Information

#### Documentation

A full set of operation and maintenance manuals and circuit wiring diagrams.

#### Generating Set Standards

The equipment meets the following standards: BS5000, ISO 8528, ISO 3046, IEC 60034, NEMA MG-1.22. TATA is a fully accredited ISO 9001:2008 company. IEC 60034, NEMA MG-1.22. Rishabh is a fully accredited ISO 9001:2008 company.

#### Warranty

All equipment carries full manufacturer's warranty. Extended warranty terms available



### Cooling System

|   |                     |
|---|---------------------|
| Ambient temperature, °C (°F)  | drive               |
| Engine jacket water capacity, L (gal.)                                      | 4.5 (1.19)          |
| Radiator system capacity, including engine, L (gal.)                        | 18.5 (4.89)         |
| Engine jacket water flow, Lpm(gpn- Standby):                                | 110(29.1)           |
| Heat rejected to cooling water at rated kW, dry exhaust, kW                 | 46.75               |
| Water pump type   | - Standby: Impeller |
| Fan diameter, including blades, mm (in.)                                    | 515 (20.28)         |
| Max. restriction of cooling air, intake and discharge side of radiator, k F | 0.127               |

### Lubrication System

|                           |            |
|---------------------------|------------|
| Oil Filter Type:          | Spin-On    |
| Total Oil Capacity: Ltrs. | 18         |
| Oil Pan: Ltrs.            | 15         |
| Oil Type:                 | CH4 15W-40 |
| Oil Cooling Method:       | Coolant    |

### Exhaust System

|   |            |
|---|------------|
| Max. Allowable Back Pressure: kPa (in Hg)             | 11 (3.2)   |
| Exhaust Manifold type                                 | Dry        |
| Exhaust flow at rated kW, kg/hr                       | 431.7      |
| Exhaust temperature at rated kW, dry exhaust, °C (°F) | 700 (1292) |
| Exhaust outlet size at engine hookup, mm (in.)        | 75 (2.95)  |

### Fuel System

|  |             |
|--|-------------|
| Fuel supply line, min. ID, mm (in.)        | 15 (0.59)   |
| Fuel return line, mm. ID, mm (in.)         | 10 (0.39)   |
| Max. lift engine-driven fuel pump, m (ft.) | 1 (3.28)    |
| Fuel prime pum p                           | Manual      |
| Fuel Filter: quantity, type                | 1, Spin-on  |
| Recommended fuel                           | HSD-ASTM D2 |
| Fuel tank capacity , L                     | 200         |

### Fuel Consumption\* @ 0.85 kg/m³ Density

| Diesel, Lph (gph) at % load | Prime Rating |
|-----------------------------|--------------|
| 100%                        | 26.8         |
| 75%                         | 20.0         |
| 50%                         | 13.8         |

\*Tolerance +/- 5%

### Controller

**High Resolution LCD Display** | Run Time Hours, Current, Voltage, Engine RPM, Frequency, Engine Temperature & Oil Pressure, Battery V, Service Due Hours. Confirms to IP65.

LCD Fault Displays | High Engine Temperature, Low Oil Pressure, Overspeed, Over & Under Voltage, Over & Under Frequency, E-Stop, Low Fuel Level, Over Load, Auxiliary Fault

### Standard Features & Accessories

Master Switch : Start/Off-Reset/Auto

Remote two wire Start/Stop facility

Superior Electronics

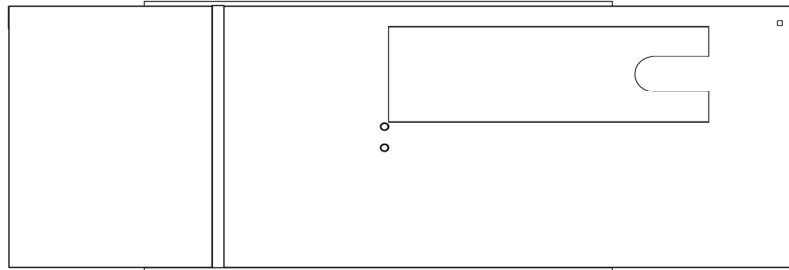
Language Option: Hindi & English

**Dimensions & Weights**

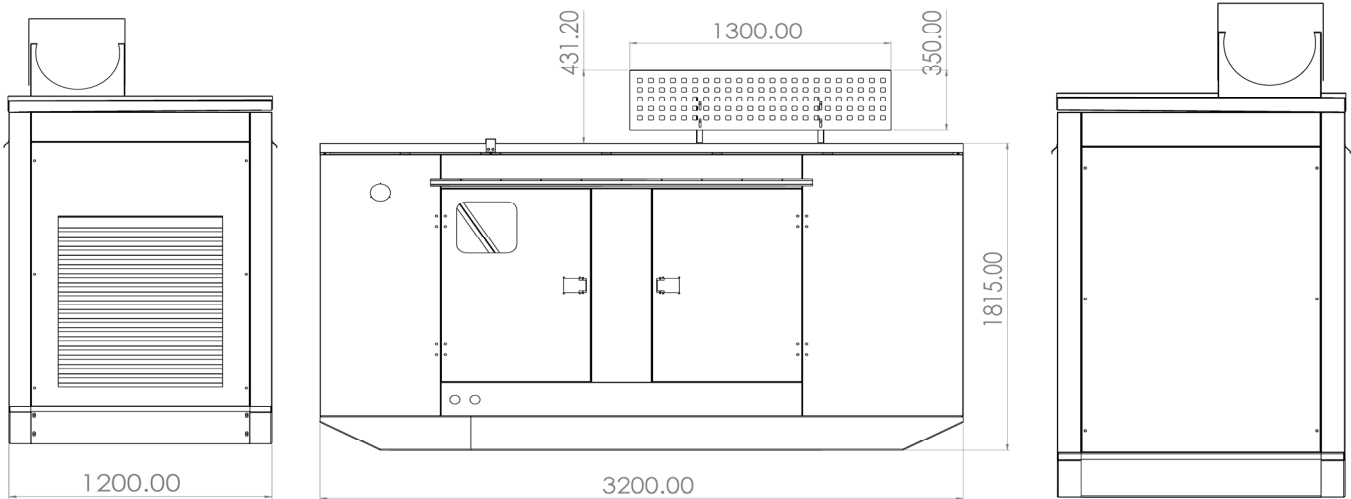
Overall Size, L x W x H, mm(in.) 3200(126) x 1200(47.2) x 1800(71)

**Weight**

Total Genset Weight, Dry, kg (lb.) 2050 (4519.4)



**TOP VIEW**



**REAR VIEW**

**RHS VIEW**

**FRONT VIEW**

Dgset Mfr By:- Authorized GOEM | TATA Motors



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Note: In View Of Continuous Product Upgradation & Design Changes, Above Specifications & Dimensions Are Subject To Change Without Prior Notice.