

# Diesel Generators

## TDG1650B

MOTEURS  
**Baudouin**

STAND BY	kVA	1650
	kW	1320
PRIME	kVA	1500
	kW	1200



### STAND BY RATING (ESP)

It is the way that generators operate under variable load at certain time intervals. It can work as a backup power. It is not suitable to work under extreme load.

### PRIME RATING (PRP)

Applicable for supplying power to varying electrical load for unlimited hours. 10% overload capability is available for a period of 1 hour within 12-hour period of operation.

### CONTINUOUS OPERATION

It is the continuous working under constant load. Unlimited hours use of all (100%) of the defined power. It cannot be overloaded above the defined power. For use where there is no mains power.

### DESCRIPTION

TESCOM TDJ Series Diesel generator set is a fully integrated power generation system, providing optimum performance, reliability, and versatility for stationary standby, prime power and continuous duty applications.

### FEATURES

Baudouin heavy-duty engine - Rugged 4-cycle industrial diesel delivers reliable power, low emissions and fast response to load changes.

Alternator - Low reactance 2/3 pitch windings; low waveform distortion with non-linear loads, fault clearing short-circuits capability, and class H insulation.

Cooling system - The standard integrated kit model radiator system designed and tested for nominal ambient temperatures, simplifies facility design requirements for heat rejected.

Control system - Datakom electronic control is standard equipment and provides total genset system integration, including auto remote start/stop, alarm and status message display.

Canopy Types - Optionally it is possible to make it protective and soundproof against adverse climatic conditions.

Warranty and service - Backed by a comprehensive warranty and worldwide after-sales support, 10 years of spare parts supplying.



## MOTOR FEATURES

Frequency	50Hz
Output rating	1450kW
Manufacturer and model	Baudouin 12M33G1650/5
Fuel	Diesel
Injection	Direct
Aspiration	Naturally aspirated
Cylinders	12
Bore and Stroke	150 x 185mm
Displacement	39,2lt
Cooling	Water
Engine oil specification	SAE 15W40
Compression ratio	15:1
Engine oil capacity (sump only)	160lt
Coolant capacity (incl.radiator)	188lt
Governor	Electronic
Air filter	Dry element
<b>FUEL CONSUMPTION</b>	
100% load	354,2lt/h
75% load	234,2lt/h
50% load	156,1lt/h
<b>EXHAUST SYSTEM</b>	
Maximum temperature	< 700°C
Exhaust gas flow	350,4m <sup>3</sup> /min
Maximum exhaust back pressure	75mBar
Exhaust flange size (internal dia.)	200mm
<b>AIR SYSTEM</b>	
Intake air flow	101,1m <sup>3</sup> /min
Air intake temperature rise	< 5°C
<b>STARTING SYSTEM</b>	
Starter motor	2x8,5kW
Battery capacity	55Ah
Auxiliary voltage	24V



## ALTERNATOR FEATURES

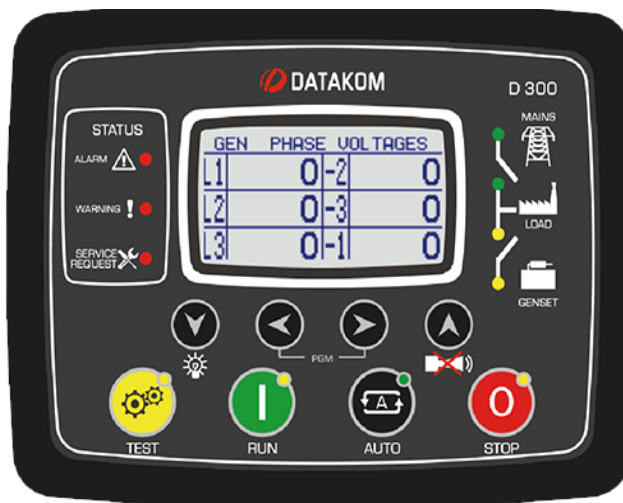
Brand	TESCOM
Poles	4 Poles
Frequency	50/60Hz
Winding connections	Star
Insulation	Class H
Enclosure	IP23
Power factor	0,8
Altitude	1000m
Exciter system	Self excitation
Voltage regulator	AVR
Steady state voltage regulation	± 1%
Direction of rotation	Clockwise
Cooling	Direct drive centrifugal blower fan

## CONTROL SYSTEM

The new D300 MK2 genset controller is a cost effective modular genset controller ready for internet monitoring through plug-in modules. Its main advantages are multifunctionality, support for multiple topologies, harmonic analysis and detailed power measurements.

## DESCRIPTION

Software features are complete with easy firmware upgrade through USB port. The Windows based PC software allows monitoring and programming through USB, RS-485, RS-232, Ethernet and GPRS. The Rainbow Scada web service allows monitoring and control of an unlimited number of gensets from a single central location.



## MAJOR FEATURES

- Diesel and gas genset support
- 400Hz operation support
- 400 event logs, full snapshot
- All parameters front panel editable
- 3 level configuration password
- 128x64 graphical LCD display
- Downloadable languages
- Waveform display of V & I
- Harmonic analysis of V & I
- 16Amp MCB & GCB outputs
- 8 configurable digital inputs
- 6 configurable digital outputs
- 3 configurable analog inputs
- Both CANBUS-J1939 & MPU
- 3 configurable service alarms
- Multiple automatic exerciser
- Weekly operation schedule
- Dual mutual standby with equal aging of gensets
- Manual "speed fine adjust" on selected ECUs
- Automatic fuel pump control
- Disable protections feature
- Excess power protection
- Reverse power protection
- Overload IDMT protection
- Load shedding, dummy load
- Multiple load management
- Current unbalance protection
- Voltage unbalance protection
- Fuel filling & fuel theft alarm
- Battery back-up real time clock
- Idle speed control
- Battery charge run enabled
- Combat mode support
- Multiple nominal conditions
- Contactor & MCB drive
- 4 quadrant genset power counters
- Mains power counters
- Fuel filling counter
- Fuel consumption counter
- Modem diagnostics display
- Configurable through USB, RS-485, Ethernet and GPRS
- Free configuration program
- Allows SMS controls
- Ready for central monitoring
- Mobile genset support
- Automatic GSM geo-location
- Easy USB firmware upgrade
- -40°C operation with optional display heater
- IP65 rating with optional gasket

## COMMUNICATION

- USB Device
- J1939-CANBUS
- Geo-locating through GSM
- Internet Central Monitoring
- SMS message sending
- E-mail sending
- Free PC software: Rainbow Plus
- Modbus RTU (2400-57600baud)
- Modbus TCP/IP

## FUNCTIONALITIES

- AMF unit
- ATS unit
- Remote start controller
- Manual start controller
- Engine controller

## MEASUREMENTS

- Mains & genset PN/PP voltages
- Mains & genset frequency
- Mains & genset phase currents
- Mains & genset neutral currents
- Mains & genset, phase & total, kW, kVA, kVAr, pf
- Engine speed
- Battery voltage

## TOPOLOGIES

- 3 ph 4 w, star & delta
- 3 ph 3 w, 2 CTs
- 2 ph 3 w
- 1 phase 2 wires

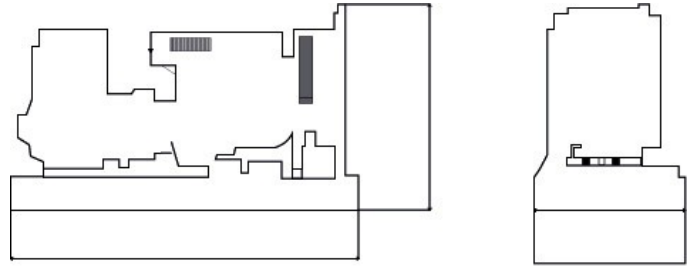
## PLUG-IN MODULES

- GSM Modem (2G-3G-4G)
- Ethernet 100Mbps
- Wi-Fi (802.11 b/g/n)
- RS-485 (2400-57600baud)
- RS-232 (2400-57600baud)

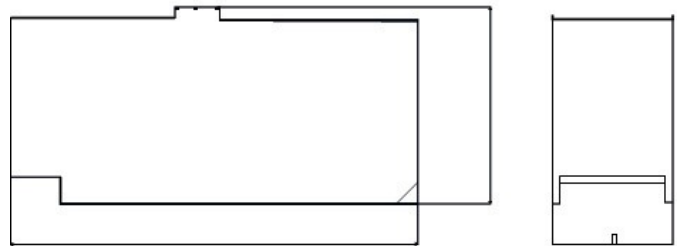
## CANOPY STANDART SPECIFICATIONS

- Compact design connection with non-welded nuts and bolts.
- Integrated canopy,generator set,exhaust system fuel tank.
- Body made from steel components treated with polyester powder coating
- Easy access to all service points
- Exhaust system inside canopy
- Large doors on each side
- Control panel viewing window in a lockable access door
- Emergency stop push button mounted on cabin exterior
- Fuel fill and battery can only be reached via lockable access doors.
- Customer options available to meet your applications needs.
- TESCOM makes its generating sets noise level tests in accordance with directive 2000/14/EC validation of the noise level test has been aproved by the notified body Szutest (CE conformity assessment body).

### OPEN TYPE



### WITH CABINET



	Length (mm)	Width (mm)	Height (mm)	Tank capacity (L)
OPEN TYPE	5500	2500	2550	2000
WITH CABINET	5500	2500	2750	2000

## CERTIFICATES

- Power according to ISO 3046 and ISO 8528
- EN 12100 , EN 13857 , EN 60204
- 2006/42/CE Machinery Safety
- 2006/95/EC Low Voltage
- 2004/108/CE EMC
- Ambient reference conditions 1000 mbar,  
25 °C, 30 % relative humidity ISO8528

