# **TESCOM DIESEL GENERATORS**

# TDJ1000DF

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| STAND BY | kVA | 1000 |
|----------|-----|------|
|          | kW  | 800  |
| PRIME    | kVA | 909  |
|          | kW  | 727  |





\* The image is for illustrative purposes only. It may vary depending on the power rating.

#### 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 perod of operation.

#### CONTINUOUS OPERATION

It is the continious 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

Shanghai Dongfeng 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 standart integrated kit model radiator system designed and tested for nominal ambient temparatures, 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 aftersales support, 10 years of spare parts supplying.

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#### CONTROL PANEL FEATURES

- The cable group we use in our generators is fireproof cable class. Cable sheaths form the defense line of cables against various chemicals and flame.
- The use of Halogen-free materials in the outer sheath of the cables prevents the spread of toxic gases during a fire. At the same time, fireproof cable sheaths have low smoke density and flame retardant properties. This feature of firepr of cable sheaths prevents the spread of fire and minimizes possible damages.
- Schneider Electric breaker group is used in generator control panels. As a standard, all our products have a 3/4 pole MCCB (Molded Case Circuit Breaker)



## ATS (AUTOMATIC TRASFER SWITCH) GENERAL FEATURES

- The SQ5 Dual Power Automatic Transfer Switch Series is a kind of automatic transfer switch that combines the switch and the logic controller, enabling the mechanical and electrical to become an inseparable whole.
- Superior electromagnetic compatibility, high resistance to interference.
- It has zero-time transfer technology with high reliability.
- It cuts the dual circuit power simultaneously.
- In addition to PLC remote control, it has a multi-circuit input / output interface that can automate the system.



| ATS MODEL                                  | GENERATOR POWER RANGE |
|--|-----------------------|
| 100 A TRANSFER PANEL WITH TRANSFER SWITCH  | 0-70 kVA              |
| 160 A TRANSFER PANEL WITH TRANSFER SWITCH  | 82-124 kVA            |
| 250 A TRANSFER PANEL WITH TRANSFER SWITCH  | 125-165 kVA           |
| 400 A TRANSFER PANEL WITH TRANSFER SWITCH  | 220-275 kVA           |
| 630 A TRANSFER PANEL WITH TRANSFER SWITCH  | 300-440 kVA           |
| 800 A TRANSFER PANEL WITH TRANSFER SWITCH  | 500-550 kVA           |
| 1000 A TRANSFER PANEL WITH TRANSFER SWITCH | 660-715 kVA           |
| 1250 A TRANSFER PANEL WITH TRANSFER SWITCH | 750-825 kVA           |
| 1600 A TRANSFER PANEL WITH TRANSFER SWITCH | 900-1100 kVA          |
| 2000 A TRANSFER PANEL WITH TRANSFER SWITCH | 1250kVA               |
| 2500 A TRANSFER PANEL WITH TRANSFER SWITCH | 1400-1600 kVA         |
|  |                       |



| Model                       | S296TAD87DJ             |  |
|-----------------------------|-------------------------|--|
| Standby                     | 886kW                   |  |
| Prime                       | 805kW                   |  |
| Frequency                   | 50Hz                    |  |
| Cylinder displacement       | 28,3lt                  |  |
| Number of cyclinders / Type | 12V                     |  |
| Bore x Stroke               | 138 x 165mm             |  |
| Compression ratio           | 16:1                    |  |
| Governor type               | Electronic              |  |
| Aspiration                  | Turbocharge Intercooler |  |
| Injection type              | Direct injection        |  |
| Cooling system              | Liquid cooled           |  |
| Oil capacity                | 61lt                    |  |
| Cooling liquid capacity     | 84lt                    |  |
| Battery voltage             | 24V                     |  |
| Battery capacity            | 2x60A                   |  |
| FUEL CONSUMPTION            |                         |  |
| 100% load                   | 188lt/h                 |  |
| 75% load                    | 144lt/h                 |  |
| 50% load                    | 100lt/h                 |  |
|                             |                         |  |

# 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 exication                      |  |  |  |
| Voltage regulator               | AVR                                 |  |  |  |
| Steady state voltage regulation | ± 1%                                |  |  |  |
| Direction of rotation           | Clockwise                           |  |  |  |
| Cooling                         | Direct drive centrifugal blower fan |  |  |  |
|                                 | ·                                   |  |  |  |

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## CONTROL SYSTEM

The new TESCOM TCM01 genset controllers are 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.

Different brand controller can be offered upon request. (DEIF AGC 150, DEIF SGC 120/12, DEIF SGC 420/421, Datakom D500, DEEPSEA 6120, DEEPSEA 7320, ComAp AMF25)

## 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
- ${\scriptstyle \bullet}$  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

TESCOM reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice

- 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

## 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)

#### 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

#### FUNCTIONALITIES

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

### TOPOLOGIES

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







DEIF AGC 150



DEIF SGC 120



DEIF SGC 420

DATAKOM D500

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DEEPSEA 6120

a' a' a

DEEPSEA 7320

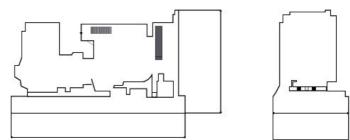
ComAp AMF25

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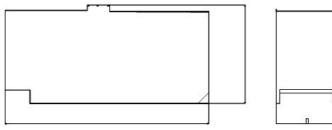
## CANOPY STANDART SPECIFICATIONS

- Compact design connection with non-welded nuts and bolts.
- Integrated canopy,generator set,exhaust system fuel tank.
- $\boldsymbol{\cdot}$  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) | Weight (kg) | Tank capacity (L) |
|--------------|-------------|------------|-------------|-------------|-------------------|
| WITH CABINET | 4400        | 2000       | 2650        | 7000        | 1000              |
| OPEN TYPE    | 4400        | 2000       | 2500        | 6300        | 1000              |

## 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

