

## TDJ500DF



STAND BY	kVA	500
	kW	400
PRIME	kVA	455
	kW	364



\* 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 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

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 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.

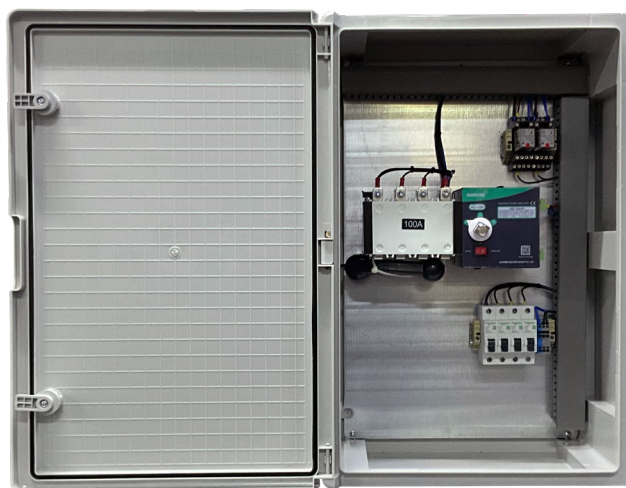
## CONTROL PANEL FEATURES

- 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 fireproof 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 TRANSFER 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



## MOTOR FEATURES

Model	S142TAD47DJ
Standby	450kW
Prime	409kW
Frequency	50Hz
Cylinder displacement	14,2lt
Number of cylinders / Type	6 / In line
Bore x Stroke	135 x 168mm
Compression ratio	15,5:1
Governor type	Electronic
Aspiration	Turbocharge Intercooler
Injection type	Direct injection
Cooling system	Liquid cooled
Oil capacity	35lt
Cooling liquid capacity	75lt
Battery voltage	24V
Battery capacity	2x60A
<b>FUEL CONSUMPTION</b>	
100% load	100lt/h
75% load	75lt/h
50% load	53lt/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 excitation
Voltage regulator	AVR
Steady state voltage regulation	± 1%
Direction of rotation	Clockwise
Cooling	Direct drive centrifugal blower fan

## 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
- 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



TESCOM TCM01



DEIF AGC 150



DEIF SGC 120



DEIF SGC 420



DATAKOM D500



DEEPSEA 6120



DEEPSEA 7320



ComAp AMF25

## 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, kVA<sub>r</sub>, 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

## 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)	Weight (kg)	Tank capacity (L)
WITH CABINET	3400	1600	2200	3750	500
OPEN TYPE	3400	1600	2000	3150	500

## 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

