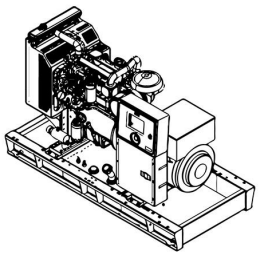
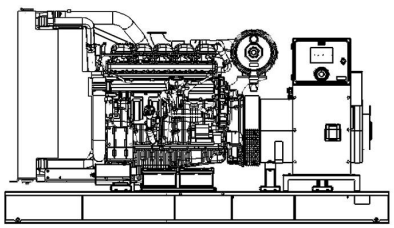
# TJ49MS6S

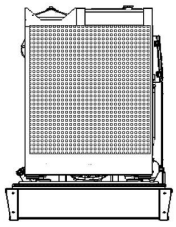
## 60 Hz Diesel Generator Sets

| Output Power | | |
|---|---|---|
| Standby Power (ESP) | kVA | 49 |
| | kW | 39 |
| Prime Power (ESP) | kVA | 47 |
| | kW | 38 |

| Size | WxLxH (mm) | Weight (kg) | Fuel Tank (lt) | Noise dB(A) @1m |
|---|---|---|---|---|
| Canopied | 950 x 2200 x 1450 | 858,3 | 90 | TBA |
| Open Skid | 950 x 1650 x 1000 | 598,3 | 90 | TBA |







### Continuous Power

The maximum power which a generating set is capable of delivering continuously whilst supplying a constant electrical load. Average load can be 100%. The generator must not be overloaded.

### Standby Power

The max power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 hrs of operation per year under average of 70% load. Overloading isn't permissible.

### Prime Power

The maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load. Average load should be 70%. The generator can be overloaded 10% for 1 hour per 12 hrs.

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TEKSAN

### Engine

| | | |
|---|---|---|
| Manufacturer | | MITSUBISHI |
| Model | | S4SDT-61SD |
| No of Cylinders | | 4 |
| Cylinder Configuration | | INLINE |
| Displacement | lt | 3.331 |
| Bore | mm | 94 |
| Stroke | mm | 120 |
| Compression Ratio | | 17:01 |
| Aspiration | | TURBOCHARGE |
| Governor Type | | MECHANIC |
| Cooling System | | WATER |
| Coolant Capacity | lt | 9,5 |
| Lubrication Oil Capacity | lt | 9 |
| Electrical System | VDC | 12 |
| Speed / Frequency 60 Hz | Hz | 1800 rpm / 60 Hz |
| Engine Gross Power (Standby 60 Hz) | kW | 46,2 |
| Fuel Consumption 110 % 60 Hz | lt/h | 12,6 |
| Fuel Consumption 100 % 60 Hz | lt/h | 9,8 |
| Fuel Consumption 75 % 60 Hz | lt/h | 8,1 |
| Fuel Consumption 50 % 60 Hz | lt/h | 6,4 |
| Exhaust Outlet Temperature 60 Hz | °C | 530 |
| Exhaust Gas Flow 60 Hz | m3/dk | 9,3 |
| Combustion Air Flow 60 Hz | m3/dk | 3,4 |
| Cooling Air Flow 60 Hz | m3/dk | 19,2 |

### Alternator

| | | |
|---|---|---|
| Manufacturer | | STAMFORD |
| Model | | PI144J |
| No of Phases | | 3 |
| Power Factor | | 0,8 |
| No of Bearings | | SINGLE |
| No of Poles | | 4 |
| No of Leads | | 12 |
| Voltage Regulation (Steady State) | | ± %1 [In Steady State, Speed %4] |
| Insulation Class | | H |
| Degree of Protection | | IP 23 |
| Excitation System | | AVR (Automatic Voltage Regulator), Brushless |
| Connection Type | | STAR |
| Total Harmonic Content (No Load) | | < %2 |
| Frequency | Hz | 60 |
| Voltage Output 60 Hz | VAC | 277 / 480 |
| Rated Power (Standby) 480_60 Hz | | 56,3 |
| Efficiency (4/4_480 V_60 Hz) | | 87,1 |

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### Standard Equipments

**Engine**
In Teksan generator sets, leading engine brands that have state of the art technology and have compliance with ISO 8528, ISO 3046, BS 5514, DIN 6271 standarts, are being used. These engines with low fuel consumption, provide accurate speed setting and order, mount to the fuel pump, also have mechanic or electronic type governors.

**Alternator**
In products Teksan produced, leading alternator brands of the world that have state of the art technology, high quality, productivity and durability, are being used. All alternators, which pass necessary test process and found appropriate according to EC 60034-1; CEI EN 60034-1; BS 4999-5000; VDE 0530, NF 51- 100,111; OVE M-10, NEMA MG 1.22. standarts, have bearing system that does not need maintenance, with electronic type voltage regulator providing voltage setting.

**Control Panel**
Standard control panel, that is used in Teksan generator sets, ensures comfortable and safe usage. All measured and statistical parameters, operating modes, notice and alarms and condition of generator, are monitored easily from the control panel. On the front of the panel's metal body has electronic control module and the emergency stop button and the panel's metal body is made of steel sheet and is painted with electrostatic powder paint.

Teksan offers panel design and solutions that comply with special requirements of customers as well as quality standard panels.

**Chassis and Fuel Tank**
Chassis is manufactured from steel that has features and durability for carrying burden of generator set. Thanks to its rigid structural design and anti-vibration mounts, it reduces vibration level to minimum. All chassis contain lifting lugs. Apart from chassises that are produce by Teksan, special solutions that design in accordance with customer desires, make transportation and positioning easier.

In less than 1600 kVA power generator sets, fuel tank is produced integratedly to the chassis. In more than 1600 kVA power generator sets, rectangular type fuel tank is provided with generator set seperately. In all types of fuel tank have its level and indicator.

**Cooling System**
System, that consists of quality industrial - type radiator, expansion tank and cooler fan, keeps the temprature of generator set's equipments constant at a proper level.

### Canopy Features

***TEKSAN*** Standard Canopies' default features are as follows;

- Compatible with 2000/14/EC directives, certified noise emission level,
- 2 or 4 points transport possibility according to cabin size,
- Hidden exhaust inside the canopy,
- Emergency stop button located on the canopy,
- Improved air suction channel to ensure homogenous cooling in the canopy,
- Radiator air outlet and exhaust with designed towards above,
- Lid on cab that provides to be filled up water and antifreeze easily to the radiator,
- Amplified paint system against corrosion and rust,
- Improved performance in terms of sound insulation,
- Demounted parts that make transportation and maintenance easier,

As well as the standard range of canopies, TEKSAN can also design tailormade canopies with specific sound level or size upon customer requests.

### Optional Equipments

Some Optional Equipments that Teksan provides with Generator Sets;

- Medium voltage alternator,
- Remote radiator applications,
- Automatic fuel filling system,
- Fuel tank, oil pan, dashboard, alternator, coil heaters,
- Alternator with double AVR and PMG,
- Synchronization systems,
- The generator output breaker,
- Grid-generator transfer switches,
- Accordance with the specific volume of demand-insulated cabins,
- Seismic solutions,
- Trailer,
- Remote monitoring.

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### Control Panel Features-TJ 509-T

- The TJ-509T is a next generation genset control unit combining multi-functionality and wide communication possibilities together with a reliable and low cost design.
- The unit complies and mostly exceeds world's tightest safety, EMC, vibration and environmental standards for the industrial category.
- Software features are complete with easy firmware upgrade process through USB port. The Windows based PC software allows monitoring and programming through USB, RS-485, Ethernet and GPRS.
- The PC and server based Rainbow Scada software allows monitoring and control of an unlimited number of gensets from a single central location.

### Functions

- AMF unit with uninterrupted transfer
- ATS unit with uninterrupted transfer
- Remote start controller
- Manual start controller
- Engine controller
- Remote display & control unit
- Waveform display of V & I
- Harmonic analysis of V & I
- CTs at genset or load side

### Topologies

- 2 phases 3 wires, L1-L2
- 2 phases 3 wires, L1-L3
- 3 phases 3 wires, 3 CTs
- 3 phases 3 wires, 2 CTs (L1-L2)
- 3 phases 3 wires, 2 CTs (L1-L3)
- 3 phases 4 wires, star
- 3 phases 4 wires, delta
- 1 phase 2 wires

### Communications

- SM-GPRS
- Web monitoring
- Web programming
- GSM-SMS
- e-mail
- USB Device
- RS-232
- J1939-CANBUS

- Technical information and values are according to ISO8528, ISO3046,NEMA MG-1.22, IEC 600341, BS 4999-5000, VDE 0530 standards.
- Producing with ISO9001, ISO14001, OHSAS18001, TSE, CE standards.
- All information given in this leaflet is intended for general purposes only.
- Due to a policy continuous improvement Teksan reserves the right to amend details and specifications without notice and all information given is subject to the Teksan's current condition of sales.

TBA: To Be Asked TBD: To Be Determined NA: Not Avaliable N/A: Not Applicable TTDTJ49MS6S1019EN