Tanon 图农 Power & Machinery

# SHANGHAI TANON POWER CO LTD

## Diesel Generating Set TNCS-96 60Hz

## General Features

| | | |
|---|---|---|
| ● **Engine** | 4BTA3.9-G11 | Cummins Made in China |
| ● **Alternator** | UCI224F | Stamford Made in China |
| ● **Controller** | DSE7320 | Deepsea Made in UK |

| | |
|---|---|
| **Prime power(kw/kva)** | **67.2/84** |
| **Standby Power(kw/kva)** | **76.8/96** |

- Electric speed control
- 24v starting batteries,maintennance-free type,connecting cables
- Equipped with CHINT MCCB;ABB in Option
- Equipped with industrial silencer and flexible exhaust hose
- Radiator 40°C max, fans are driven by belt with safety guard
- 24v charge dynamo
- Equipped with 8-hours operation base tank
- Design comply to ISO8528/GB2820
- Absorber (anti instant braking)
- User manual, Packing list

## General Ratings

| Voltage | Power | | | | Frequency | Phase | P.F (COSφ) | Prime Current |
|---|---|---|---|---|---|---|---|---|
| | Prime | | Standby | | | | | |
| | kw | kva | kw | kva | (Hz) | | | (A) |
| 220/380V | 67.2 | 84.0 | 76.8 | 96.0 | 60 | 3 | 0.8 | 127.6 |
| 230/400V | 67.2 | 84.0 | 76.8 | 96.0 | 60 | 3 | 0.8 | 121.2 |
| 240/415V | 67.2 | 84.0 | 76.8 | 96.0 | 60 | 3 | 0.8 | 116.9 |
| 254/440V | 67.2 | 84.0 | 76.8 | 96.0 | 60 | 3 | 0.8 | 110.2 |

**Prime power**

This rating is for the supply of continuous electrical power at variable load. A 10% overload capability is available for a period of 1 hour within each 12-hour peiord of operation.

**Standby power**

This rating is for the supply of continuous electrical power at variable load in the event of utility power failure.
No overload is permitted.

**Rated voltage**

Available with customers requirements.

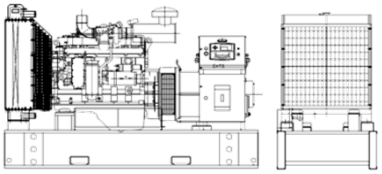
## Sales Promise

TANON POWER provides a full line of 100% brand new and high quality products.
Each and every unit is strictly factory tested before delivery.
Warranty is according to below standard conditions, subject to the earlier one.
1. 13 months, counted on the date of Bill of lading
2. One year after installation.
3. 1000 running hours.

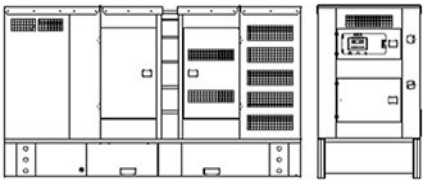
Service and parts are available from TANON or distributors in your location.

## Dimension And Weight

**Open frame**
Size(L*W*H):1850*800*1350(mm)
N.W.:800 (kgs)



**Silent with Canopy**
Size(L*W*H):2280*950*1510(mm)
N.W.:1150(kgs)



# Diesel Generating Set TNCS-96 60Hz

## Engine Specifications

| | | |
|---|---|---|
| 1 | Engine model | 4BTA3.9-G11 |
| 2 | Engine manufacturer | DCEC |
| 3 | Number of cylinders | 4 |
| 4 | Cylinder arrangement | Vertical in line |
| 5 | Cycle | 4 |
| 6 | Aspiration | Turbo Water Cooling |
| 7 | Bore×Stroke(mm×mm) | 102×120 |
| 8 | Displacement (Liter) | 3.9 |
| 9 | Compression Ratio | 16.5:1 |
| 10 | Prime power/speed (kW/RPM) | 77/1800RPM |
| 11 | Standby power/speed (kW/RPM) | 84/1800RPM |
| 12 | Speed governor | electronic |
| 13 | Cooling system | Positive Water Cooling Cycle |
| 14 | Coolant capacity (engine only) (L) | 8.00 |
| 15 | Steady speed droop (%) | 1% |
| 16 | Total lubrication system capacity (L) | 9 |
| 17 | Oil consumption (% of fuel) | 0.15% of fuel consumption |
| 18 | Fuel consumption at 100% load (L/h) | 17.0 |
| 19 | Fuel consumption at 75% load (L/h) | 13.6 |
| 20 | Fuel consumption at 50% load (L/h) | 10.2 |
| 21 | Starter motor | 24v |
| 22 | Dynamo | 24v |

## Alternator Specifications

Compliance with GB755,BS5000,VDE0530,NEMAMG1-22,IED34-1,CSA22.2 and AS1359

| | | |
|---|---|---|
| 1 | Alternator model and Prime Power | UCI224F |
| 2 | Alternator manufacturer | Stamford |
| 3 | Exciter type | Single bearing, Brushless, Self-excited |
| 4 | Rated speed | 1800 RPM |
| 5 | Rated frequency | 60 Hz |
| 6 | Phase | 3 |
| 7 | Rated voltage | 400V |
| 8 | Power factor | 0.8 |
| 9 | Voltage adjust range | ≥5% |
| 10 | Voltage regulation NL-FL | ≤±1% |
| 11 | Insulation grade | H |
| 12 | Protection grade | IP23 |

**Alternator option**

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## Main Electrical Performance Data

| Voltage | | | | Frequency | | | |
|---|---|---|---|---|---|---|---|
| Stable Regulation rate | Fluctuation | Recover time | Instantaneous Regulating rate | Stable regulation rate | Instantaneous regulating rate | Recover time | Fluctua-tion |
| +/-2.5% | 0.5% | 1.5s | +20%/-15% | +5% | +/-10% | 5S | 0.5% |

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## Diesel Generating Set TNCS-96 60Hz

## Control System

| Deepsea (UK) | Model | | DSE7320 |
|---|---|---|---|
| **Protection** | **Parameter** | | **PHOTO** |
| ● Low oil pressure | ● Volt | ● oil pressure |  |
| ● High water temp | ● current | ● oil temp | |
| ● Over speed | ● power | ● power factor | |
| ● over crank | ● speed | ● running time | |
| ● Over load | ● frequency | ● water temp | |
| ● Over/low volt | | ● battery voltage | |
| ● Over/low frequency | | | |
| ● Battery charge failure | | | |

## Option

**Generator Set**
□ Trailer generator set
□ ABB MCCB circuit breaker
□ 50°C Radiator

**Fuel system**
□ 12 hours base fuel tank
□ 24 hours base fuel tank
□ Dual wall base fuel tank
□ External fuel tank

**Exhaust system**
□ Residential exhaust silencer

**Alternator**
□ PMG excitation
□ Anti Condensation Heater

**For cold area**
□ Water heater
□ Oil heater
□ Rapid water preheater (diesel burner)

**Auto system**
□ Remote Control panel
□ ATS control cabinet
□ Paralleling System

**External ATS**

**220V water heater**

**Diesel powered heater**

**220V Oil heate**

**Syn. Cabinet**

**Parker separator**