

# SHANGHAI TANON POWER CO LTD

# **Diesel Generating Set TNCS-50G2**

## 60Hz

# **General Features**

- Engine
- Alternator
  Controller
- 4BT3.9-G2 PI144J DSE7320



Cummins Made in China Stamford Made in China Deepsea Made in UK



| Prime power(kw/kva)   | 36/45 |
|-----------------------|-------|
| Standby Power(kw/kva) | 40/50 |



- 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**

|          | <u> </u> |      |         |      |           |       |        |               |
|----------|----------|------|---------|------|-----------|-------|--------|---------------|
|          | Power    |      |         |      | Frequency |       | P.F    | Prime Current |
| Voltage  | Prime    |      | Standby |      | Frequency | Phase | (COS¢) |               |
|          | kw       | kva  | kw      | kva  | (Hz)      |       | (0034) | (A)           |
| 132/230V | 36.0     | 45.0 | 40.0    | 50.0 | 60        | 3     | 0.8    | 113.0         |
| 220/380V | 36.0     | 45.0 | 40.0    | 50.0 | 60        | 3     | 0.8    | 68.4          |
| 230/400V | 36.0     | 45.0 | 40.0    | 50.0 | 60        | 3     | 0.8    | 65.0          |
| 254/440V | 36.0     | 45.0 | 40.0    | 50.0 | 60        | 3     | 0.8    | 59.0          |

### 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.

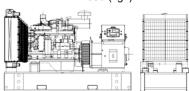
- 1. 13 months, counted on the date of Bill of lading
- 2. One year after installation.

3. 1000 running hours.

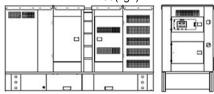
Service and parts are available from TANON or distributors in your location.

# **Dimension And Weight**





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









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| Engine | Specifications                        |                              |
|--------|---------------------------------------|------------------------------|
| 1      | Engine model                          | 4BT3.9-G2                    |
| 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)            | 40/1800RPM                   |
| 11     | Standby power/speed (kW/RPM)          | 44/1800RPM                   |
| 12     | Speed governor                        | Electric                     |
| 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)   | 9.1                          |
| 19     | Fuel consumption at 75% load (L/h)    | 7.3                          |
| 20     | Fuel consumption at 50% load (L/h)    | 5.5                          |
| 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 | PI144J                                  |
|----|----------------------------------|---|
| 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                 | Н                                       |
| 12 | Protection grade                 | IP23                                    |
| 11 | Insulation grade                 | Н                                       |

## Alternator option

Mecc Alte, Leroy Somer, Stamford copy

# Main Electrical Performance Data

| Voltage                      |             |                 |                               | Frequency              |                               |              |              |
|------------------------------|-------------|-----------------|-------------------------------|------------------------|-------------------------------|--------------|--------------|
| Stable<br>Regulation<br>rate | Fluctuation | Recover<br>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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#### **Control System** Model DSE7320 Deepsea (UK) Parameter рното Protection • oil pressure Low oil pressure Volt • oil temp High water temp • current Over speed • power power factor • over crank • running time • speed 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

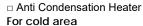
## Exhaust system

Residential exhaust silencer

## External ATS







Alternator

Water heater

PMG excitation

- Oil heater
- □ Rapid water preheater (diesel burner)

### Auto system

- □ Remote Control panel
- □ ATS control cabinet
- □ Paralleling System

## **Diesel powered heater**



## 220V Oil heate Syn. Cabinet



Parker separator



