

# TSO88Z 50Hz POWERED BY SDEC SERIES



## TECHNICAL SPECIFICATIONS

### DIESEL GENERATING SET 400/230V-50Hz-3Phase

Model	TSO88Z	
Power(ESP)	kVA/kw	87.5/70
Power(PRP)	kVA/kw	80/64
Starter Voltage	V	24
Rated Current	A	126
Rated rotation speed	r/min	1500
Power Factor		0.8
Fuel Consumption	Litre/hour	19.5
Fuel Tank Capacity	Litre	Open Type : 158 / Silent Type: 278
Noise level	dB(A)@7m	≤76

## WEIGHT AND DIMENSIONS

GEN-Set	Dimension ( L*W*H )	Weight
Open Type	1800 mm*820 mm*1278 mm	1145 Kg
Silent Type	3146 mm*1056 mm*1850 mm	1631 Kg

## STANDARDS:

**Genset:** GB/T2820—2009,ISO8528

**Alternator:** SINOCOX ,SMF225FS

**Diesel Engine:** SDEC , 4HT4.3-G23

**Standby Power:** Continues running at variable load for duration of an emergency. No overload is permitted on these ratings.

**Prime Power:** Continues running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period.

## CONFIGURATION:

**Standard:** Engine, alternator, cooling system, Base frame (excluding fuel tank), shock absorber, air inlet system, control box (including mains floating charge), plastic fan blades (when the engine and water tank do not bring).

**Optional:** Base frame (including fuel tank), water jacket heater, fuel water separator, fuel heater, fuel level sensor (only supporting underframe tank), switch box (with switch), power switch, the water level sensor, motor anti condensation heater, automatic fueling system (only supporting base frame including fuel tank), battery frame.

**Accessories:** Silencer, bellow, exhaust silencing system accessories (with the matching engine), regular battery, starting cord assembly, data of gen-set, random tool (with the matching engine).



# ENGINE Specification

## Manufacturer: SDEC

Model	4HT4.3-G23
Engine speed Rated	1500 RPM
Cylinder /Arrangement	4 / L
Displacement	4.3 L
Bore and Stroke	105 mm×124 mm
Compression ratio	17.3 : 1
Max. stand by power at rated RPM	86KW
Frequency regulation , steady state	≤1%
Governor : type	Electrical
Aspiration and Cooling	water-cooled , Turbo charged

## Exhaust System

Exhaust gas flow	13.2m <sup>3</sup> /min
Exhaust temperature	600 ℃
Max back pressure	6kPa

## Fuel System

Fuel consumption100% (of the Prime Power)	19.5 L / h
Fuel consumption75% (of the Prime Power)	14.3 L/h
Fuel consumption50% (of the Prime Power)	9.9 L/h
Fuel consumption110% (of the Prime Power)	21.8L/h

## Oil system

Total oil capacity w/filters	13 L
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## Air intake

Engine air flow	5.6m <sup>3</sup> /min
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## Coolant System

Radiator & engine capacity	6.8 L
Max water temperature	100 ℃
Thermostat	82-95 ℃



- Powered by SDEC
- Engine with Modular Design .Standardized design of accessories ,patent design ,machine body with strengthened high-intensity and rigidity
- Four-Valve Mechanism high-accuracy speed regulator
- Strong environmental adaptability capability ,powerful cold boot capability

Note: All data sheets are for reference only and subject to change without prior notice.



# ALTERNATOR Specification

**Manufacturer: SINOCOX**

Type	SMF225FS
Number of phase power	3
Factor (Cos Phi)	0.8
Pole	4
Bearing	1
Coupling	Direct
Exciter type	SHUNT
Insulation : class , temperature rise	H / H
Degree of protection	IP23
Altitude	≤1000m
Winding Pitch	2/3
Winding Leads	12

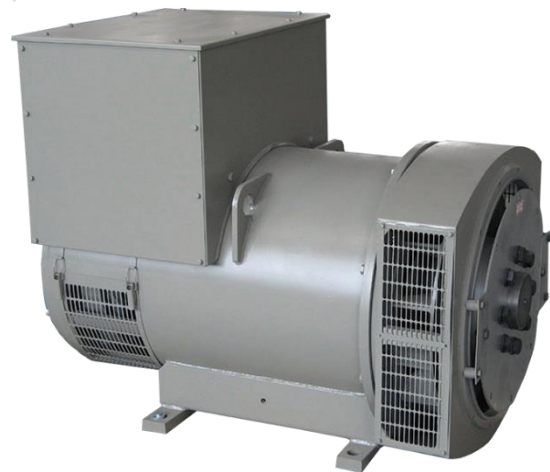
## FEATURES

- Class H insulation system
- selectable winding, To meet the demand of the bad environment
- 12 Lead Reconnect, able for different voltage, meet the demand of different countries and regions
- 2/3 pitch windings restrain the content of harmonious
- Different Excitation Systems for different load demand
- Ip23 standard protection, IP44 for option
- Provide single bearing or double bearing

## STANDARDS

-IEC60034, NEMA MG1-32, ISO8528, CSA  
C22.2-100, VDE 0530, GB755

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# Control Panel

**Model:** HGM6110CAN

## AUTO START CONTROL MODULES

### DIMENSIONS

#### OVERALL

**209mm x 166mm x 44mm**

#### PANEL CUTOUT

**186mm x 141mm**



#### KEY FEATURES

- LCD is 132x64, with a backlit, four languages (Chinese, English, Spanish, Russian, Portuguese, Turkey, Polish and French) display, touch button operation;
- The screen saver with a hard screen acrylic material, good wear resistance and scratch resistance;
- The use of silicone panel and buttons, the ability to adapt to the environment of high temperature;
- With RS485 communication port, can achieve “three remote” functions via MODBUS protocol;
- With CANBUS port which can be connected to electronic injection with J1939, it not only can monitor frequently-used data (such as water temperature, oil pressure, rotated speed and fuel consumption, etc.) but also can control start, stop, high speed and low speed (controller with CANBUS port is needed) via CANBUS port.
- Suitable for three-phase four-wire, three-phase three-wire, single-phase two-wire, two-phase three-wire (120V / 240V) power supply 50Hz / 60Hz systems;
- collect and display Mains / generator phase voltage, phase current, frequency, power parameters;
- Mains with overvoltage, undervoltage, phase function, power has overvoltage, undervoltage, over frequency, under frequency, overcurrent function;
- sophisticated collection of various engine parameters:
- control and protection functions: automatic diesel generator start / stop, sub-gate (ATS switch) and display complete fault protection and other functions;
- With ETS, idle speed control, preheat control, lifting speed control function, and are relay output;
- A variety of temperature, pressure, oil level sensor can be used directly, and custom parameters;
- A variety of starting conditions (speed sensor, hydraulic, power generation) option;
- A wide range power supply (8 ~ 35) VDC, can adapt to different starting battery voltage environments;
- All parameters are used in digital adjustment, eliminating the conventional analog potentiometer adjustment method, improve the reliability and stability of the machine;
- Add rubber gasket between shell and controller screen, the waterproof can reach IP65;;
- The controller uses the metal clamps fixed;
- A modular design, flame retardant ABS housing, pluggable terminal blocks, embedded installation, compact, easy to install.