WINTPOWER®

WT-SC150 150KVA Technical Data sheet

WINTPOWER

ISO 9001 QUALITY ASSURANCE

Professional Genset Manufacture On Your Side

FUZHOU WINTPOWER TECHNOLOGY CO., LTD.

WINTPOWER

Gensets model	Prime Power (50hz)	Standby Power (50hz)	Engine Model	Alternator Model
WT-SC165	138KVA/110KW	150KVA/120KW	SC7H220D2	WT274E

General Features:

ΔSDEC diesel engine made by SDEC China, with radiator at ambient temperature 40°C, fans are driven by belt, with safety guard

ΔWintpower Alternator with single bearing alternator; IP Protection, Insulation class H

ΔAir Filter,Oil filter and fuel filter fitted

ΔLube-oil drain valve fitted

ΔElectric Starter Charge motor 24 VD.C

Δ Battery Charger

ΔOptional soundproof and weatherproof canopy

Δ3 pole MCCB Delixi breaker/Optional ABB

ΔOperation & Maintenance manual

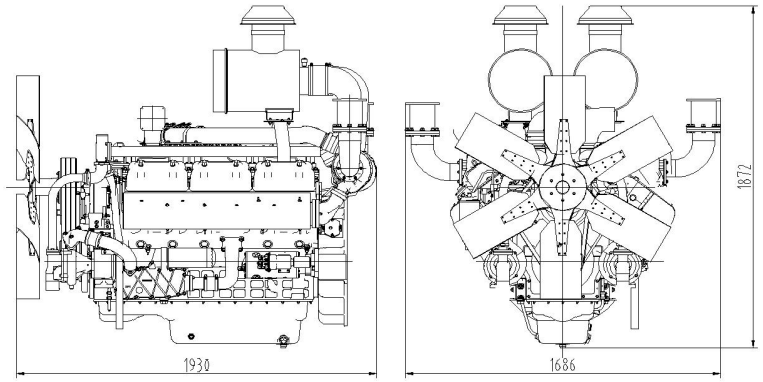
ΔAccessory: A suit of ripple flex exhaust pipe; exhaust siphon, muffler; and a set of spare parts & Tools

Δ The structure is built-up, the built-in residential muffler makes the noise lower.

ΔExhaust guide plate and air channel for air intake&noise reduction are mounted within soundproof canopies.

ΔOutside Emergency Stop Button.

Δ 8 Hours Base Fuel tank is equipped, With lifting ear and forklift slots. Outside fuel inlet/return, outside lub oil and coolant drain.



Voltage Regulation:

Voltage regulation maintanined within ±0.5%

Between 0.8 and 1.0 lagging and unity

From no load to full load

At speed droop variation upto 4.5%

Frequency Adjustable Ratio:

Change load from 0-100%,within 1.0%(electric speed regulator),within 4.5%(mechanical speed regulator)

Frequency Undulation:

load from 0-100%,frequency undulation within 0.25%

No load wire volts max undulation ration\ within 1.8%

Three Phrase balanced load in the order of 5%

Note:

1)The engine performance is as per GB/T2820/Ratings are based on GB/T1147.1.

2)Prime Power (PRP): Prime power is available for continuous 12-hours running, in accordance with GB/T2820, ISO8528; A 10% overload capability is available for a period of 1 hour within a 12-hours period of operation. Standby Power Rating (ESP): The standby power rating is applicable for supplying emergency power. No overload, soundproof gensets only run under rating power.

3)Standby power is available in the event of a utility power outage or under test conditions for up to 200 hours of operation per year. The permissible average power output over 24 hours of operation shall not exceed 80% of the standby power rating.

Sales Promise:

(1) All the gensets are tested on load before they leave factory, various kinds of functions are tested . and test reports are provided.

(2) Warranty for all of our gensets and accessories is according to our standard conditions since testing: 24 months or 1500 running hours accumutively, subject to the earlier, kindly refer to our service terms.

Engine Technical Data Sheet

◎ SPECIFICATIONS

○ Engine Model	SC7H230D2
○ Engine Type	In-line,4 strokes, water-cooled 4 valves, Turbo charged air-to-air intercooled
○ Combustion type	Direct injection
○ Cylinder Type	Dry liner
○ Number of cylinders	6
○ Bore × stroke	105(4.14) × 124(4.89) mm(in.)
○ Displacement	6.44(393) lit.(in3)
○ Compression ratio	16:01
○ Firing order	1-5-3-6-2-4
○ Injection timing	12°BTDC
○ Dry weight	Approx. 580 kg (1278.7 lb)
○ Dimension	1343×741×1267 mm
(L×W×H)	(52.9×29.2×49.9 in.)
○ Rotation	Counter clockwise viewed from Flywheel
○ Fly wheel housing	SAE NO.3
○ Fly wheel	SAE NO.11.5

◎ FUEL CONSUMPTION

○ Power	lit/hr
25%	9.6
50%	18.2
75%	27.3
100%	36.5
110%	40.5

◎ FUEL SYSTEM

○ Injection pump	Longkou in-line “P” type
○ Governor	Electric type
○ Feed pump	Mechanical type
○ Injection nozzle	Multi hole type
○ Opening pressure	250 kg/cm2 (3556 psi)
○ Fuel filter	Full flow, cartridge type
○ Used fuel	Diesel fuel oil

◎ MECHANISM

○ Type	Over head valve
○ Number of valve	Intake 2, exhaust 2 per cylinder
○ Valve lashes at cold	Intake 0.25mm (0.0099 in.)
○ Valve lashes at cold	Exhaust 0.50mm (0.0197 in.)

◎ VALVE TIMING

	Opening	Close
○ Intake valve	20.9°BTDC	44.9°ABDC
○ Exhaust valve	51.7°BBDC	11.7°ATDC

◎ LUBRICATION SYSTEM

○ Lub. Method	Fully forced pressure feed type
○ Oil pump	Gear type driven by crankshaft
○ Oil filter	Full flow, cartridge type
○ Oil pan capacity	High level 17.5 liters (4.62 gal.)
○ Oil pan capacity	Low level 15 liters (3.96 gal.)
○ Angularity limit	Front down 25 deg.
○ Angularity limit	Front up 35 deg.
○ Angularity limit	Side to side 35 deg.
○ Lub. Oil	Refer to Operation Manual

◎ COOLING SYSTEM

○ Cooling method	Fresh water forced circulation

◎ ENGINEERING DATA

○ Water flow	170 liters/min @1,500 rpm

⚬ Water capacity (engine only)	9.6 liters (2.5 gal.)	⚬ Heat rejection to coolant	18.4 kcal/sec @1,500 rpm
		⚬ Heat rejection to CAC	9.1kcal/sec @1,500 rpm
⚬ Pressure system	Max. 0.5 kg/cm2 (7.11 psi)	⚬ Air flow	12.2 m3/min @1,500 rpm
⚬ Water pump	Centrifugal type driven by belt	⚬ Exhaust gas flow	27.2 m3/min @1,500 rpm
⚬ Water pump Capacity	170liters (44.9 gal.)/min at 1,500 rpm (engine)	⚬ Exhaust gas temp.	600 °C @1,500 rpm
⚬ Thermostat	Wax–pellet type	⚬ Max. permissible	
⚬ Thermostat	Opening temp. 82°C	⚬ Intake system	3 kPa initial
⚬ Thermostat	Full open temp. 95°C	⚬ Intake system	6 kPa final
⚬ Cooling fan	Blower type, plastic 660 mm diameter, 10 blades	⚬ Exhaust system	6 kPa max.
⚬ Cooling air flow	4.53 m^3/s	⚬ Max. permissible altitude	2,000 m

◎ ELECTRICAL SYSTEM

⚬ Charging generator	28V×55A
⚬ Voltage regulator	Built-in type IC regulator
⚬ Starting motor	24V×6kW
⚬ Battery Voltage	24V
⚬ Battery Capacity	150 AH

◎ CONVERSION TABLE

in. = mm × 0.0394	lb/ft = N.m × 0.737
PS = kW × 1.3596	U.S. gal = lit. × 0.264
psi = kg/cm2 × 14.2233	kW = 0.2388 kcal/s
in3 = lit. × 61.02	lb/PS.h = g/kW.h × 0.00162
hp = PS × 0.98635	cfm = m3/min × 35.336
lb = kg × 2.20462	

Alternator Technical data

Wintpower WT274E

Δ Bruxhless,self exciting	Exciter	Brushless
Δ class "H" insulation	Cooling Fan	Cast alloy aluminum
Δ Standard degree of protection is IP23	Bearing	Single,double shielded
Δ self regulating	Windings	100% copper
Δ With fan cooling	Connection Type	Reconnectable
Δ Resist Humid grease	Insulation Type	Class H
Δ AC excitation,roating rectification tube	Pitch	2/3
Δ Stator grease insulation covered	Amortisseur Winding	Full
Δ Rotator and exciation high polymer,Resist the corruption of oil and acid	Voltage Regulator	AVR SX460
	Voltage Regulator NL-FL	±0.5%
Δ Rotator ballance is in accordance with BS5625 standard 12.5	Underspeed Protection	Standard
	Overexcitation Protection	IP23
Δ High-quality lubrication sealed long-time bearing	TIF (1960 Weightings)	<50
Δ Rotator sillicon steel close tight	Exciation System	SHUNT

Control Panel - DEEPSEA DSE4620

The base mounted control panel in a vibration isolated sheet steel enclosure.The control panel is equipped as
a)Instruments:Analogue Volmeter,Hours Run Meter.Water pressure Meter.
b) Controls:Emergency Stop Pushbutton,Volmeter Phase Selector Switch.

c) Control module:Standard collocation is DEEPSEA DSE4620

DEEPSEA DSE4620 CONTROLLER

Main Features:

Δ Automatic or manual start/stop of the genset

Δ 3 phase AMF function

Δ configuration analog inputs

Δ Configurable programmable binary inputs and outputs

Δ Warm-up and cooling functions

Δ Battery voltage,engine speed measurement

Δ Modem communication support(IL-AMF25 only)

Δ RS232 interface

Δ Support of engines equipped with Electronic Control Unit (J1939 interface)

Δ Graphic back-lit LCD display

Δ Comprehensive diagnostic messages; SPN/FMI codes;KWP2000 Support

Δ 6 LED indicators

Δ Sealed to IP65

Δ Generator C.B and Mains C.B control with feedback and return timer

Optional SYK1 (SuYang) Automatic Transfer Switch Without/With Cabinet

The Automatic Transfer Switch Without/With Cabinet Main Function as follows:

ATS can automatically transfer load between the main power and the emergency power(generationg set) without operator.When the main power fails or voltage drops below 80% of normal voltage,the ATS will start emergency generating set after a preset time 0-10 seconds(adjustable),and transfer the load to emergency power(generating set).Contrarily, when the main power revovers normal,the ATS will transfer the load from the emergecncy power(generating set) to the main power, and then stop the emergency power(generating set.)

Optional 1-ATS without Cabinet (Can be installed on the control panel Directly)

Δ Small Size/Operator conveniently

Δ ATS 63A-1100A with Economical Cost

Optional 2-ATS With Cabinet

ΔMains on lamp

ΔMains on load lamp

ΔGensets on lamp

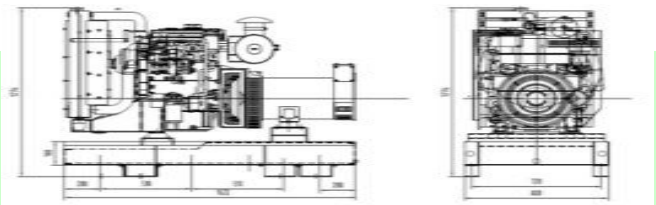
ΔGensets on load lamp

ΔMode Transfer Switchr

ΔEmergency Stop

ΔATS 63A-3200A

Sound Attenuated Enclosure/Option



Robust Corrosion Resustant Construction

Δ Black finish stainless stell lock and hinges

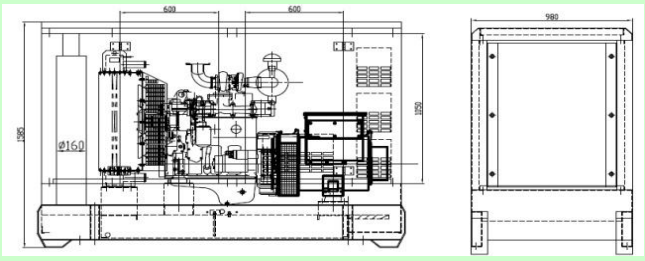
Δbody made from steelcomponents treated with

Excellent Access for Maintenance

Δtwo large doors on each side

Δradiator fill access plate

Δlube oil and cooling water drains pipes to exterior of



Security and Safety

Δcontrol panel viewing window in a lockable access

Δemergency stop push buttom (red)mounted on

Δcooling fan and battery charging alternator fully

Δexhaust silencing system totally enclosed for

Dimensions and Weights-Open Type

Length (L)	Width (W)	Height (H)	Dry	Wet
mm	mm	mm	kg	kg
2390	940	1511	2060	2140

Dimensions and Weights-Canopy Type

Length (L)	Width (W)	Height (H)	Dry	Wet
mm	mm	mm	kg	kg
3560	1220	1815	2110	2160

Sound Attenuated (SA) Sound Pressure Levels (dBA)

7m (23ft)		1m (3ft)	
75% Load	100% Load	75% Load	100% Load
76.9	77.8	77.9	79.7

General Information

Wiring Diagram And Testing

A full set of operation and maintenance manuals and circuit wiring diagrams.

Ambient temperature: -25℃ to 45℃.The coolant heater is needed when the temperature is below 5℃

Humidity: Less than 80%.

Inspection items

Protection devices working test

Starting ability in normal temperature

50% rated power load moment capability

Voltage deviation and speed variation: 0%, 25%, 50%,

The customer could also choose the color which the manufacturer offers

Offer a range of optional features to tailor our generator sets to meet your power needs.

Options

50°C High Temperature ● Permanent Magnet Gen ● Auto Control Panel ● Daily Fuel Tank Radiator -erator (PMG) ● Auto Transfer Switch(ATS) ● Base Fuel Tank

Water Separator ● Anti Condensation Heater ● Trailer Type

Water Jacket Heater ● Drop CT(For Paralleling) ● Manual Paralleling System ● Automatic Input System For

Oil Heater ● Auto Paralleling System Fuel

Oil Discharging Pump ● Electronic Indicator for● Maintenance Tools Fuel Level ● Accesory Bag