Silent Type (enclosed canopy) Diesel Generator Set

Model: DB-64GF

Powered by Ricardo

Diesel Generator Technical Specifications	
Manufacturer:	Guangxi Dingbo Generator Set Manufacturing Co.,Ltd
Genset model	DB-64GF
Type	**Silent type (enclosed canopy)**
Power:	**64KW/80KVA**
Rated current:	122A
Rated voltage:	380/220V
Rated speed/frequency	1500rpm/50Hz
Power factor:	0.8lag
Phase:	3 phase 4 wire
MCCB Breaker	250A
Fuel type	Light diesel
Fuel consumption@ 50% / 75% / 100%(L/h）	9.4/13.4/17.8
Stable voltage regulation rate	≤±0.5%
Volatility	≤±0.25%
Transient voltage regulation rate	≤+20~-15%
Steady state frequency regulation	≤±0.5%
Transient frequency adjustment rate	≤±7%
Frequency adjustment rate	≤±1%
Frequency stability time	1s
Voltage stability time	≤1s
Daily fuel tank for silent type	185L
Noise level for silent type	75dBA at 7 meters, 87dBA at 1m
Dimension(L x W x H) for silent type	2700*1240*1790mm
Weight for silent type	1400kg

Note: Dingbo power generator set complies with ISO 9001 and CE standards, including the Following directives:
Machinery Directive 2006/42/EC
2014/30/EU Electromagnetic Compatibility Directive
EN 60204-1:2018,EN ISO 12100:2010,EN ISO 8528-13:2016
EN IEC 61000-6-2:2019,EN IEC 61000-6-4:2019

Remarks:

Prime power (PRP): Prime power is available for an unlimited number of annual hours in variable load application, in accordance with GB/T2820-97 (eqv ISO8528); A 10% overload capacity is available for a period of 1 hour within a 12-hour period of operation.

Standby power rating (ESP): The standby power rating is applicable for supplying emergency power for the duration of utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.

■ Optional Equipment

- Automatic transfer with ATS
- Synchronizing controller
- Engine oil heater, water jacket pre-heater
- Alternator anti-condensation heater, pre-heater
- External fuel tank
- Welded frame with fuel tank
- Fuel level sensor
- Low fuel level alarm
- Automatic fuel feeding system
- Silent enclosure, silent container, waterproof canopy(without silent function), Mobile trailer (4 wheels, with universal turntable)
- Fuel level display on diesel filler on silent enclosure
- External fire extinguisher
- Silent enclosure air inlet with anti insect and anti sand leakage cores
- External aluminum alloy waterproof quick plug on silent enclosure
- Silent enclosure material options: Galvanized sheet, cold-rolled sheet
- Automatic fire extinguishing system (for silent container version).
- Wooden box package

■ Optional Configurations / Designs

- Enclosed Silent Canopy
- Galvanized Coating (Optional)
- ISO Containerized (Optional)
- Marine-Grade Anticorrosive Coating (Optional)
- For other alternator, control panel, or circuit breaker configurations, please contact an authorized dealer.

■ Directives

- 2006/42/EC Machinery Safety Directive
- 2014/30/EU Electromagnetic Compatibility Directive
- 2014/35/EU Low Voltage Directive

■ Standards

- EN ISO 8528-13:2016 (or the latest version)
- EN ISO 12100:2010
- EN ISO 13857:2019
- EN 60204-1:2018

- EN IEC 61000-6-2:2019
- EN IEC 61000-6-4:2019

Quality Management Systems (if applicable)
- ISO 9001, ISO 14001, ISO 45001, etc.

■ Engine Specifications: Ricardo TAD64GE

Engine Technical Specifications	
Manufacturer:	**Ricardo**
Engine model	**TAD64GE**
Prime power:	**70KW**
Standby power:	**73.5KW**
Frequency/Speed:	50Hz/1500RPM
Cylinders no. & Type:	4 cylinders, In line, 4 stroke, diesel engine, water-cooled with radiator with fan
Aspiration:	Turbo charged and intercooled
Displacement:	4.84L
Compression ratio	17.5:1
Governor	Electric speed control
Bore x Stroke(mm):	108 x 132
Start mode:	Electric start
Starter motor:	12V DC electric start with battery
Fuel System:	Direct injection
Oil Pan Capacity	15L
Maximum oil temperature	121℃
Cooling way	Water-cooled
Engine coolant capacity	9L
Standard thermostat (modulating) range	72-82℃
Maximum Top Tank Temperature for Standby / Prime Power	104/100℃

■ Alternator Specifications

Alternator	
Manufacturer	**Shanghai Stamford Power Equipment Co.,Ltd**
Alternator model	**Shanghai Stamford GR225G**
Prime power	**64KW**
Type	**Synchronous alternator**

Rated Voltage:	380/220V
Frequency/Speed:	50Hz/1500RPM
Wire connecting method	Y type, 3 phase 4 wire
Power Factor:	0.8lag
Efficiency:	95.2%
Regulator:	AVR
Rotor:	Single/double bearing
Exciter type:	Brushless Self-Excited
Recovery time(Tr)	1s
Waveform : TIF	<50
Waveform : THF	<2%
Winding Pitch	2/3
Voltage regulation:	± 1.0 %
Protection:	IP23
Insulation class	H
Temperature rise grade:	H
Duty	Continuous
Overload	110% rated load for1 hour per12 hours

LCD multifunction control panel SmartGen controller, model HGM6110N-4G-G

Model：HGM6110N-4G-G

Automatic control system with auto start/stop

(Our cloud service management system can let you remote control(start/stop) and monitor generator set by App on computer or mobile phone any time any where, more efficient and cost-effective management of your generator set)

Operating Environment:

Operating temperature:	-25℃～+70℃
Relative humidity:	95%
Operating voltage:	DC24V(range: 8-35V)
Panel	Silicone Rubber
IP Rating	IP65
Function	Auto start
Built-in Cloud Monitoring	Yes
SMS	Yes
Working Mode	Auto/Stop/Manual
Alarm Protection	Warning/Shutdown

Product Features:

Automatic controller has network communication module inside, which can realize genset access to internet. After controller logging in cloud server, the unit data information (include GPS positioning, altitude, etc.) will be uploaded in real time to the corresponding cloud server. Users can monitor the genset and inquire the genset running status, the event log, as well as configure the parameters via cloud server by phone APP (ISO or Android) and computer terminal equipment. The network communication module also has SMS function.

Automatic controller uses 32-bit microprocessor which can achieve precision measurement, value adjustment, timing and threshold setting etc.. All the parameters can be configured from front panel or use USB interface (or RS485 interface) to adjust via PC. It can be widely used in all types of automatic control system for its compact structure, simple connections and high reliability.

Automatic controller, integrating digital, intelligent and network techniques, is used for automatic control and monitoring system of genset. It can carry out functions of automatic start/stop, data measurement, alarm protection and three “remote” (remote control, remote measure and remote communication). The controller uses LCD display, optional display interface including Chinese, English, Spanish, Russian, Portuguese, Turkish, Polish and French with easy and reliable operation.

Feature

1. Remote control(start/stop)

Display "real time status" for engine and alternator.

Support automatic/manual stop/start, reset, close and other operations.

Support power generation closing / opening, utility closing / opening and other operations.

All operations need to be authenticated by face or control code.

2. Remote monitoring

Diesel engine: Speed, water temperature, oil pressure, liquid level, battery voltage, charging voltage etc.

Generator: Power, power factor, three-phase current, three-phase voltage, frequency, etc.

3. "Real time data"

Diesel engine: including all detailed data such as accumulated running time, maintenance countdown, etc

Generator: including the accumulated electric energy and other detailed data that can be collected and analyzed.

Mains / bus: three phase voltage, single phase voltage, frequency, phase, etc.

Various input and output, programmable access, etc.

4. Save the operation data of the genset in recent 3 months.

5. Genset daily running hours, total running hours for easier maintenance.

6. Record all information of genset, such as power, voltage, current, model, brand, supplier etc.

7. Support multi genset management and parallel genset management.

8.Multi machine view, single machine control, unlimited number, multi person management.

Below protection shut down causes are included:

Low Coolant Level

High coolant temperature

Low oil pressure

Low output frequency

High output frequency

Low output voltage

High output voltage

Low Fuel Level

Emergency stop

The main characteristics are as follows:

- ✓ 132*64 LCD display with backlight, eight optional languages interface (Chinese, English, Spanish, Russian, Portuguese, Turkey, Polish and French), push-button operation;
- ✓ Acrylic screen, improved wearable and scratch resistance property;
- ✓ Silica-gel panel and keys can well adapt to higher and lower temperature;
- ✓ With RS485 communication port, can achieve “three remote” functions via MODBUS protocol (available for the controller with RS485 port);
- ✓ With CANBUS port which can be connected to EFI 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;
- ✓ Adapt to 3P4W, 3P3W, 1P2W and 2P3W (120V/240V), 50Hz/60Hz AC power system;
- ✓ Can collect and display 3 phase voltage, 3 phase current, frequency, power parameter of mains/gens;

Mains	**Generator**
Line voltage (Uab, Ubc, and Uca)	Line voltage (Uab, Ubc, and Uca)
Phase voltage (Ua, Ub, and Uc)	Phase voltage (Ua, Ub, and Uc)
Frequency HZ	Frequency HZ
Phase Sequence	Phase Sequence

Load

Current IA, IB, IC

Active power kW

Reactive power kvar

Apparent power kVA

Power factor PF

Generator accumulated energy kWh

Output percentage with load %

- ✓ Mains have functions of over/under voltage and loss of phase; Gens have functions of over/under voltage, over/under frequency, over current and over power;
- ✓ Precision measure and display of parameters about engine,
- ✓ Temp. (WT), °C/ °F
- ✓ Oil pressure (OP), kPa/psi/bar
- ✓ Fuel level (FL), % Fuel remains L
- ✓ Speed (SPD), r/min
- ✓ Battery Voltage (VB), V
- ✓ Charger Voltage (VD), V
- ✓ Accumulative running hours
- ✓ Accumulative start times
- ✓ Control protection: Automatic start/stop of diesel genset, close/open (ATS control) and perfect failure display and protection;
- ✓ With ETS, idle speed control, pre-heat control, speed droop/raising control, all of them are relay output;
- ✓ Parameter setting: Allow user to modify setting and store them in internal EEPROM memory. The parameters cannot be lost even when power off. All of parameters can be set not only from the front panel, but also use USB interface (or PS485 interface) to adjust them via PC.;
- ✓ Multi sensors of temperature, pressure and fuel level can be used directly, parameters can be defined by user;
- ✓ Multi conditions of crank disconnect (speed, oil pressure, frequency) can be selected;
- ✓ With emergency start function;
- ✓ With flywheel teeth numbers automatic identification function;
- ✓ Power supply range: (8~35)VDC, accommodating to different starting battery volts;
- ✓ Connect to cloud server through 4G Wi-Fi;

- ✓ With SMS function, alarm information can be sent by the set 5 phone numbers, and can control the genset and inquire the genst status by SMS;

- ✓ With GPS positioning function to obtain the genset position to realize the positioning of genset;
- ✓ Applied JSON format network data communication protocol to realize upload when genset data changes, the compression algorithm is adopted at the same time, significantly reduces the network flow, and the alarm data can be uploaded to server immediately;

- ✓ With maintenance function. Types (date or running time) can be selected and actions (warning or alarm shutdown) can be set when maintenance time out;

- ✓ Event log, real-time clock, scheduled start & stop pump unit (can be set as start pump unit once a day/week/month whether with load or not);

- ✓ Add rubber gasket between shell and controller screen, the waterproof can reach IP65;

- ✓ Controller is fixed by metal fixing clips;

Modular design, flame-retardant ABS shell, embedded mounting, compact structure and easy installation.