



# SDEC

## Diesel Generating Set

| MODEL                | SD-SC188 (S) |
|----------------------|--------------|
| Prime Power (50Hz)   | 150kW/188kVA |
| Standby Power (50Hz) | 165kW/206kVA |



### Standard Features



- SDEC diesel engine made by SDEC China, Model: SC7H250D2. With radiator at ambient temperature 40°C, fans are driven by belt, with safety guard, With DC 24V charge alternator.
- SDEC Alternator Model: SC274FC1 single bearing alternator; IP22 Protection, Insulation class H
- Stand type control panel with many kinds of Display and Protection function is equipped
- Two 12V starter maintenance free battery.
- Power output MCCB is equipped.
- Accessory: A suit of ripple flex exhaust pipe; exhaust siphon, muffler; and a set of spare parts & Tools & Documents.



- The structure is built-up, the built-in residential muffler makes the noise lower.
- Exhaust guide plate and air channel for air intake&noise reduction are mounted within soundproof canopies.
- Outside Emergency Stop Button.
- Inside power Cathode switch.
- Outside Fuel Inlet.
- Base Fuel tank is equipped, With lifting ear and forklift slots. Outside fuel inlet/return, outside lub oil and coolant drain.
- Noise level with no loads @ 7M is 74dB(A)

### Generator Ratings

| Voltage<br>(V) | Frequency<br>(Hz)                       | Phases | Power Factor<br>(COSφ) | Standby Current<br>(A) | Prime Current<br>(A) | Standby Power<br>(kW/kVA) | Prime Power<br>(kW/kVA) |
|----------------|-----------------------------------------|--------|------------------------|------------------------|----------------------|---------------------------|-------------------------|
| 440/254        | 50                                      | 3      | 0.8                    | 270.6                  | 246.0                | 165/206                   | 150/188                 |
| 400/230        | 50                                      | 3      | 0.8                    | 297.7                  | 270.6                | 165/206                   | 150/188                 |
| 380/220        | 50                                      | 3      | 0.8                    | 313.4                  | 284.9                | 165/206                   | 150/188                 |
| Other          | Customizing for Different Specification |        |                        |                        |                      |                           |                         |

### Sales Promises

- All the gensets are tested on load before they leave factory, various kinds of functions are tested . and test reports are provided.
- Warranty for all of our gensets and accessories is according to our standard conditions since testing: 12 months or 1,000 running hours accumulatively, subject to the earlier, kindly refer to our service terms.



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| Engine Data                           |                                     |
|---------------------------------------|-------------------------------------|
| Manufacturer / Model:                 | SDEC/SC7H250D2                      |
| Air Intake System:                    | 4-Cycle, Turbocharger, Aftercooling |
| Fuel System:                          | Direct injection                    |
| Cylinder Arrangement:                 | 6 cylinders Vertical in-line        |
| Displacement:                         | 6.44L                               |
| Bore×Stroke:                          | 105×124 (mm)                        |
| Compression Ratio:                    | 16:1                                |
| Rated RPM:                            | 1500rpm                             |
| Max. Standby Power at Rated RPM:      | 185kW                               |
| Governor Type:                        | Electronic Speed Governor           |
| Exhaust System                        |                                     |
| Exhaust Flow:                         | 27.2m³/min                          |
| Exhaust Temperature:                  | 600°C                               |
| Max Back Pressure:                    | 6kPa                                |
| Air Intake System                     |                                     |
| Max Intake Restriction:               | 6kPa                                |
| Combustion air Flow:                  | 12.2m³/min                          |
| Fuel System                           |                                     |
| 110% Standby Power Load:              | 44.2L/h                             |
| 100% Prime Power Load:                | 39.9L/h                             |
| 75% Prime Power Load:                 | 29.6L/h                             |
| 50% Prime Power Load:                 | 19.8L/h                             |
| Oil System                            |                                     |
| Max. sump capacity                    | 17.5L                               |
| Cooling System                        |                                     |
| Total Coolant Capacity (engine only): | 9.6L                                |
| Thermostat operation range:           | 82-95°C                             |
| Electrical System                     |                                     |
| System Voltage:                       | DC 24 V                             |
| Rated Current for Charge Alternator:  | 55 A                                |



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## Alternator Data

|                                    |                                          |
|------------------------------------|------------------------------------------|
| Manufacturer / Type:               | SDEC/ SC274FC1                           |
| Number of Phase:                   | 3                                        |
| Connecting Method:                 | 3 Phase and 4 Wires, "Y" type connecting |
| Number of Bearing:                 | 1                                        |
| Power Factor:                      | 0.8                                      |
| Protection Grade:                  | IP22                                     |
| Altitude Requirement:              | $\leq 1000\text{m}$                      |
| Exciter Type:                      | Brushless, Self-exciting                 |
| Insulation Class/Temperature Rise: | H/H                                      |
| Telephone Influence Factor (TIF):  | $< 50$                                   |
| THF:                               | $< 2\%$                                  |
| Voltage Regulation, Steady State : | $\leq \pm 1\%$                           |
| Alternator Capacity:               | 190kVA                                   |
| Alternator Efficiencies:           | 92.5%                                    |

## Generating Set Data

|                                                |                  |
|------------------------------------------------|------------------|
| Frequency Reduce:                              | $\leq 5\%$       |
| Frequency Regulation, Stead State:             | $\leq 1.5\%$     |
| Waveform Distortion(no load):                  | $< 1.5\%$        |
| Sudden Frequency Warp (100% Sudden Reduce):    | $\leq +12\%$     |
| Sudden Frequency Warp (Sudden Increase):       | $\leq -10\%$     |
| Frequency Recovery Time (100% Sudden Reduce) : | $\leq 5\text{S}$ |
| Frequency Recovery Time (Sudden Increase):     | $\leq 5\text{S}$ |
| Voltage Regulation:                            | $\geq \pm 5\%$   |
| Voltage Regulation, Stead State:               | $\leq \pm 2.5\%$ |
| Voltage Modulation:                            | 0.30%            |
| Sudden Voltage Warp (100% Sudden Reduce):      | $\leq +25\%$     |
| Sudden Voltage Warp (100% Sudden Increase):    | $\leq -20\%$     |
| Voltage Stable Time (100% Sudden Reduce):      | $\leq 6\text{S}$ |
| Voltage Stable Time (100% Sudden Increase):    | $\leq 6\text{S}$ |
| Voltage Unbalance:                             | 1%               |



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## Standard Control Panel



HKY-6110 control panel is fit for backpack structure and standing structure. This control panel is a panel which holds a HGM6110 made by Smartgen the professional module maker in China as its core intelligent control module. It has plenty friendly operation interface with many functions such as running parameter detecting, static, record, pre-alarm, Remote control, monitor & protection.

## Options

| Engine                                                                                                                                                                                             | Alternator                                                                                                                                                   | Control and Power Distribution System                                                                                                                                                                                                                                                            | Others                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>● 50°C High Temperature Radiator</li> <li>● Water Separator</li> <li>● Water Jacket Heater</li> <li>● Oil Heater</li> <li>● Oil Discharging Pump</li> </ul> | <ul style="list-style-type: none"> <li>● Permanent Magnet Generator (PMG)</li> <li>● Anti Condensation Heater</li> <li>● Drop CT(For Paralleling)</li> </ul> | <ul style="list-style-type: none"> <li>● ComAp Control module</li> <li>● Deepsea Control module</li> <li>● Auto Transfer Switch(ATS)</li> <li>● Battery Charge</li> <li>● Manual Paralleling System</li> <li>● Auto Paralleling System</li> <li>● Electronic Indicator for Fuel Level</li> </ul> | <ul style="list-style-type: none"> <li>● Daily Fuel Tank</li> <li>● Base Fuel Tank</li> <li>● Trailer Type</li> <li>● Automatic Input System For Fuel</li> <li>● Maintenance Tools</li> <li>● Accessory Bag</li> <li>● Wind Scooper for Soundproof Canopy</li> </ul> |

## Dimension & Weight

| Open Type       |  |                                                |                                                            |
|-----------------|--|------------------------------------------------|------------------------------------------------------------|
|                 |  | Overall Size L×W×H<br>2450mm × 1000mm × 1650mm |                                                            |
|                 |  | Weight<br>1550 kg                              | Base fuel tank capacity<br>Full load running for 6~8 hours |
| Soundproof Type |  |                                                |                                                            |
|                 |  | Overall Size L×W×H<br>3200mm × 1130mm × 1850mm |                                                            |
|                 |  | Weight<br>2470 kg                              | Base fuel tank capacity<br>Full load running for 6~8 hours |