



# SDEC

## Diesel Generating Set

MODEL	SD-SC80 (S)
Prime Power (50Hz)	64kW/80kVA
Standby Power (50Hz)	70kW/88kVA



### Standard Features



- SDEC diesel engine made by SDEC China, Model: SC4H115D2. With radiator at ambient temperature 40°C, fans are driven by belt, with safety guard, With DC 24V charge alternator.
- SDEC Alternator Model: SC224FC1, 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 73dB(A)

### Generator Ratings

Voltage (V)	Frequency (Hz)	Phases	Power Factor (COSφ)	Standby Current (A)	Prime Current (A)	Standby Power (kW/kVA)	Prime Power (kW/kVA)
440/254	50	3	0.8	114.8	105.0	70/88	64/80
400/230	50	3	0.8	126.3	115.5	70/88	64/80
380/220	50	3	0.8	132.9	121.6	70/88	64/80
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/SC4H115D2
Air Intake System:	4-Cycle, Turbocharger
Fuel System:	Direct injection
Cylinder Arrangement:	4 cylinders Vertical in-line
Displacement:	4.3L
BorexStroke:	105x124 (mm)
Compression Ratio:	17.3:1
Rated RPM:	1500rpm
Max. Standby Power at Rated RPM:	86kW
Governor Type:	Electronic Speed Governor
Exhaust System	
Exhaust Flow:	14.1m³/min
Exhaust Temperature:	600°C
Max Back Pressure:	6kPa
Air Intake System	
Max Intake Restriction:	6kPa
Combustion air Flow:	6.2m³/min
Fuel System	
110% Standby Power Load:	22.1L/h
100% Prime Power Load:	20.2L/h
75% Prime Power Load:	15.2L/h
50% Prime Power Load:	10.3L/h
Oil System	
Max. sump capacity	13L
Cooling System	
Total Coolant Capacity (engine only):	6.8L
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/ SC224FC1
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:	80kVA
Alternator Efficiencies:	90.1%

## 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, stastic, 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 Gen-erator (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>● Accesory Bag</li> <li>● Wind Scooper for Soundproof Canopy</li> </ul>

## Dimension & Weight

Open Type			
		Overall Size LxWxH 2000mm x 900mm x 1450mm	
		Weight 1200 kg	Base fuel tank capacity Full load running for 6~8 hours
Soundproof Type			
		Overall Size LxWxH 2450mm x 1000mm x 1650mm	
		Weight 1650 kg	Base fuel tank capacity Full load running for 6~8 hours