SCANIA DC12 59A 10-33A	CGT Stamford HCI 444 F1	Generator model: **UP-SC450S-50**

50Hz	3-Phase	Power Factor Cos Φ = 0.8

MODEL	UP-SC450S-50
Standby Power(50Hz)	**360kW / 450kVA**
Prime Power(50Hz)	**320kW / 400kVA**

Key Features:

- Engine (SCANIA DC12 59A 10-33A)
- Radiator 50˚C max. fans are driven by belt, with safety guard
- 24V charge alternator
- Alternator: single bearing alternator IP 23, insulation class H/H
- Absorber
- Dry type air filter, fuel filter, oil filter, coolant filter
- Main line circuit breaker
- Standard control panel
- Two 12V batteries, rack and cable
- Ripple flex exhaust pipe, exhaust siphon, flange, muffler
- User manual

Sample drawing

Generator Ratings

Voltage	Standby Amps	Standby Ratings (kW/kVA)	Prime Ratings (kW/kVA)
440/254	590	360/450	320/400
415/240	626	360/450	320/400
400/230	650	360/450	320/400
380/220	684	360/450	320/400

Prime Power (PRP): Prime power is available for an unlimited number of annual hours in variable load application, in accordance with ISO8528. A 10% overload capability 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 a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.

Warranty

Universal Power provides a full line of brand new and high quality products. Each and every unit is strictly factory tested.
Standard warranty conditions; 15 months from date of sale to the first buyer or, one year after installation; or, 1000 running hours (accumulated); whichever comes first.
Service and parts are available from Universal Power or distributors in your area.

ENGINE DATA

Manufacturer / Model:	SCANIA DC12 59A 10-33A, 4-cycle
Air Intake System:	Turbo, Air/Air Cooling
Fuel System:	Elec. Injection
Cylinder Arrangement:	6 in line
Displacement:	11.7L
Bore and Stroke:	127×154 (mm)
Compression Ratio:	16:1
Rated RPM:	1500rpm
Max. Standby Power at Rated RPM:	399kW
Governor Type:	EMS

Exhaust System

Exhaust Gas Flow:	32kg/min
Exhaust Temperature:	559˚C
Max Back Pressure:	10kPa

Air Intake System

Max Intake Restriction:	5kPa
Burning Capacity:	30kg/min
Air Flow:	480m^3/min

Fuel System

100%(Prime Power) Load:	205 g/kWh
75%(Prime Power) Load:	207 g/kWh
50%(Prime Power) Load:	208 g/kWh
100%(Prime Power) Load:	82.7L/h

Oil System	
Oil Consumption:	<0.3 g/kWh
Engine Oil Tank Capacity:	33L
Oil Pressure at Rated RPM:	300-600kPa

Cooling System	
Engine Coolant Capacity:	63L
Thermostat:	75˚C
Max Water Temperature:	105˚C

ALTERNATOR SPECIFICATION

General Data

Compliance with GB755, BS5000, VDE0530, NEMAMG1-22, IED34-1, CSA22.2 and AS1359 standards.

Alternator Data	CGT Stamford HCI 554 C1
Number of Phase:	3
Connecting Type:	3 Phase and 4 Wires, “Y” type connecting
Number of Bearing:	1
Power Factor:	0.8
Protection Grade:	IP23
Altitude:	≤1000m
Exciter Type:	Brushless, self-exciting
Insulation Class, Temperature Rise:	H/H
Telephone Influence Factor (TIF):	<50
THF:	<2%
Voltage Regulation, Steady State:	≤±1%
Alternator Capacity:	400KVA
Alternator Efficiencies:	93.4%
Air Cooling Flow:	0.8m^3/s

GENERATOR DATA

Voltage Regulation:	≥±5%
Voltage Regulation, Stead State:	≤±1%
Sudden Voltage Warp (100% Sudden Reduce):	≤+20%
Sudden Voltage Warp (Sudden Increase):	≤-15%
Voltage Stable Time (100% Sudden Reduce):	≤4S
Voltage Stable Time (Sudden Increase)	≤4S
Frequency Regulation, Stead State:	≤5%
Frequency Waving:	≤0.5%
Sudden Frequency Warp (100% Sudden Reduce):	≤+10%
Sudden Frequency Warp (Sudden Increase):	≤-7%
Frequency Recovery Time (100% Sudden Reduce):	≤3S
Frequency Recovery Time (Sudden Increase):	≤3S

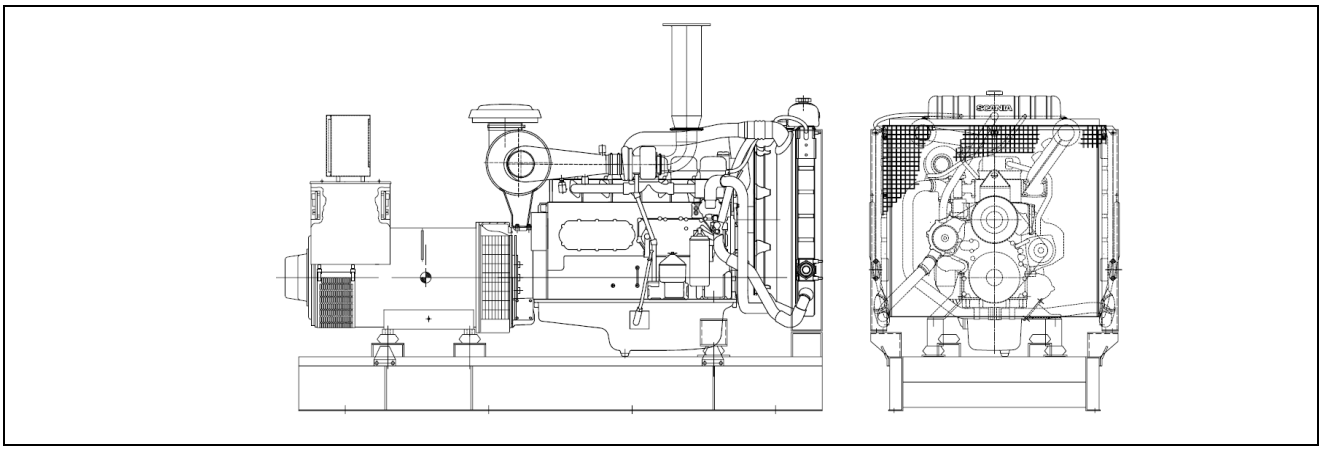
STANDARD FEATURES

- “COMAP” Standard Auto Control System or “Deepsea” Auto Control System.
- Permanent Magnet Generator (PMG)
- Oil Drain Valve
- Documents
- Battery Charger
- Starting batteries (Maintenance-Free) with connective wires
- Exhaust system
- Water Separator
- Engine Heater

OPTIONS

- Daily Fuel Tank
- Alternator Heater
- Spare Parts
- Automatic Transfer Switch
- Rainproof Type
- Soundproof Type
- Trailer Type
- Remote Control Panel
- Paralleling System
- Switch box

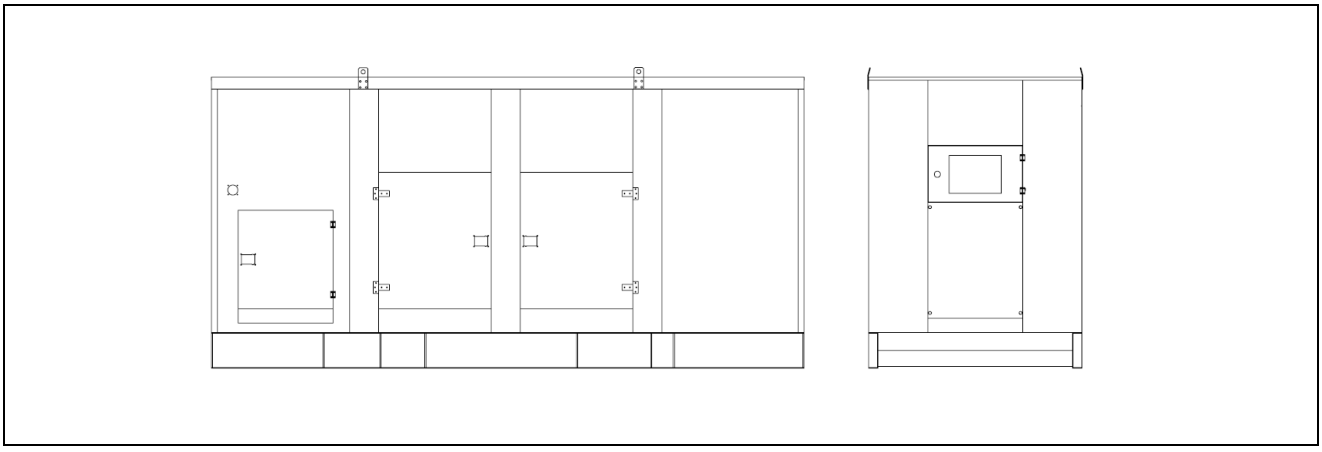
DIMENSION & WEIGHT



Standard Configuration (Open Type)

Overall Size: 3200(mm)×1270(mm)×1940(mm)

Weight: 2770kg



Soundproof Type

Overall Size: 4630(mm)×1660(mm)×2250(mm)

Weight: 3600kg

CONTROL PANELS

Automatic Control

Auto Module Control Panel is the configuration for nobody on duty controlling generators. This kind of panel adopts auto module control system, with large LCD display to show the menu.

Features: MRS10-can receive remote output signal from ATS and realize auto start and stop of generators.

MRS16-can realize all functions of MRS10, add RS232 interface which can communicate with PC to realize remote operation.

AMF25-Auto Mains Failure controller, can realize all functions of MRS16, furthermore can detect ATS and control directly.

The DSE 7310 & 7320 control systems provide complete power monitoring and protection facilities including: Pre-alarms for Low Oil Pressure and High Coolant Temperature, Digital display of kW, kVA and Power Factor, Under/Over Volts protection, Over Current Protection, Full RS485 Telemetry implementation as well as full SAE J1939 CANBus implementation. In fact, all generating sets driven by engines with onboard ECU/CANBus come with this system as standard. The DSE 7320 provides full AMF functionality with integrated mains monitoring and generator/mains contactor control

Automatic Parallel Control

Automatic Parallel Control Panel This new automatic parallel system adopts intelligent modules, inserted and folded installed, no need the peripheral relay and logic circuit. The main switch adopts electronic breaker or frame breaker, combined together with the generator, which is very reliable. One generator, one panel. The panel can be used both for singly and parallel. It is only need to parallel generator with such panel when the capability needs to be enlarged in the future.

DSE 8610 & BC 8620 control systems provide the same features as DSE 7310 & DSE 7320 respectively but has the following added functions:

- DSE8610 - Set-to-Set Synchronization
- DSE8620 - Single Set-to-Mains synchronization with integrated mains monitoring
- DSE8660 - Multi Set-to-Mains synchronization. In addition, each set in the system requires a DSExx10 unit.