

## SGE 250/275/300/350/400/450/500/550



### Scangen SGE series generating set powered by Scania engine

SCANGEN model		SGE250	SGE 275	SGE 300	SGE 350	SGE 400	SGE 450	SGE 500	SGE 550	
Prime power	KW	200	220	240	280	320	360	400	440	
	KVA	250	275	300	350	400	450	500	550	
Standby power	KW	220	242	264	308	352	396	440	484	
	KVA	275	302	330	385	440	495	550	605	
SCANIA engine model		DC9 63A	DC 9 63A	DC 12 54A	DC 12 54A	DC 12 54A	DC16 43A	DC16 43A	DC16 44A	
Cycle		Four stroke								
Engine speed		1500RPM, conform to ISO3046、BS5514、DIN6280、ISO8528 international standard								
Aspiration		Turbocharged and air to air charged air cooled								
Cylinder		5 / L			6 / L			8 / V		
Bore (mm)		127			127			127		
Stroke (mm)		140			154			154		
Fuel consumption (Full load)		197g/kwh	200g/kwh	190g/kwh	190g/kwh	193g/kwh	190g/kwh	192g/kwh	195g/kwh	
Piston displacment (L)		9			11.7			15.6		
Exhaust flow (kg / min)		15	20	22	25	28	33	36	36	
Air consumption (kg / min)		14	20	21	24	27	32	35	35	
Lube oil capacity (L)		27			33			35		
Starting system		24 V DC, electric								
Emergency stop		Close fuel electromagnetic valve								
Fuel system		Electronic unit injection								
Cooling system		Set mounted radiator								
Radiator front area (m <sup>2</sup> )		0.75			1.0			1.2		1.24
Filter system		Dry type paper element air filter and replaceable lube oil and fuel filter								
Exhaust emission standard		Engine can be supplied to meet European exhaust emission regulation. Low exhaust emission is result of complete fuelcombustion, it increased the power rating of the engine and equate to cleaner exhaust gas								
Fuel grade / Lube oil		Fuel grade: comply with EN590 (European standar) /Lube oil: ACEA E3, E4 and E5								
Noise level		Generating set can be supplied in a canopy to reduce noise level to 75dBA or 85dBA at 1m away								
Voltage / Frequency		380 - 415V / 50Hz								
Type		Brushless, self field excitation, automatic voltage regulation, single bearing								
Power factor		0.8 (Lagging)								
Insulation class / Protection		Class F / IP 21 protection grade								
Steady state voltage regulation rate(≤%)		±1								
Appication standar		IEC, BS NEMA								
Phase and wire		3 phase and 4 wire								
Control power supply voltage		Starter system: 24 V lead-acid high energy storage battery								
Control panel components		Start / stop controller, voltmeter, ammeter, frequency meter, hour run meter, start button, emergency stop button and alarm								
Alarm protection system		High water temperature, low lube oil pressure, over-speed and radiator low water level								
Telemonitoring equipment		Serials telemonitoring equipment system, liquid crystal digital display with RS232 or 485 interface (optional)								
Dimension (For open type)	Length (mm)	3100			3200			3400	3500	
	Width (mm)	1060			1220					
	Height (mm)	1800			1885			2050	2050	
Dry Weight (kg)		2500			3000			3500	3800	
Baseskid		8 hours service tank (optional)								
Prime power		Applicable for supplying variable load, no limitation to the annual operating hours and can supply 10% overload power for 1 hour in 12 hours, average 75% load factor								
Standby power		Applicable for supplying continuous electrical power in the event of a utility power failure, no overload is permitted on these ratings								
Technical standard		Conform to GB2820, ISO8582, VDE0530, BS5000, IEC34 and DIN6271								
Resilient mounting		Engine and alternator are resiliently mounted onto baseskid								

\* Due to continuous product improvements, specifications are subjected to change!

[www.scangen.com.sg](http://www.scangen.com.sg)

## Technology Standard

### Generator Set Performance

SCANGEN Generator Set has high technology power system:  
 Advanced gas distribution system, special exhaust gas turbocharger  
 High efficient engine management system, low exhaust gas emission, advanced environmental protection standard  
 High reliability, quick response, long operating life, low fuel consumption, low noise, good stability  
 High technology standardization design, precise technical structure, strong component parts versatility and long major overhaul period

### Standard

SCANGEN Generator Set conforms to ISO3046, IEC34, ISO8528, DIN6280, BS4999, VDE0875, DIN6271, BS5000, SAEJ1349, VDE0530, GE4712 international standard. Diesel engine's exhaust standard conforms to ISO8178-4 international standard and environmental protection exhaust standard

### Technical Data

Rated Voltage : 380-415/220-240V  
 Rated Frequency : 50Hz  
 Power Factor : 0.8 (lagging)  
 Wiring : three phase and four wire  
 Excitation Model : brush less self-excitation (voltage self-regulation)  
 Rated Speed : 1500rpm  
 Starting System : 24V DC  
 Cooling System : radiator with engine driven fan and expansion tank, close type cooling system



### Operating Condition

Ambient Temperature: 40 deg C  
 Height above Sea Level: Up to 300m  
 Relative Humidity: under 95%

### Starting System

Generator Set is equipped with 24V lead acid battery capable of performing minimum six starts and charging alternator (Starting time: 1-10seconds, adjustable)

### Control System

Standard control panel comes with micro processed autostart module which has complete alarm protection function, user friendly with clear display at all time of the day. The panel also includes voltmeter with selector switch, ammeter with selector switch, dual scale frequency/rpm meter, water temperature gauge, lub oil pressure gauge, battery voltmeter, operating hour-run with optional RS232 and 485 connections. The control module can be configured to user requirement.

Container Soundproof



Super Soundproof



## Powered by Scania and Taiyo



### Generator Set

SCANIA diesel engine, four stroke, electronic unit injection, turbocharged, fan and radiator cooling system, rated speed 1500rpm, 24V DC starter system, compact construction, excellent overload capacity, speed adjustment precision accuracy, complete air/diesel oil/lube oil filter, low exhaust emission standard.

TAIYO AC Alternator, brushless, self field excitation, automatic voltage regulation, single bearing, insulation F class, IP 21 protection grade, conforms to UK BS5000 Part3 standard, radio interference suppression meets BS800, VDE0875-N and GB2820 institute, designed for continuous operation.

Complete generator set baseskid is robustly built. It is optimally designed to handle both static and dynamic weight of the genset. All weight-bearing members are strengthened to reduce local stress buildup. The set are carefully aligned and are resiliently mounted to reduce transmission of structure born noise.

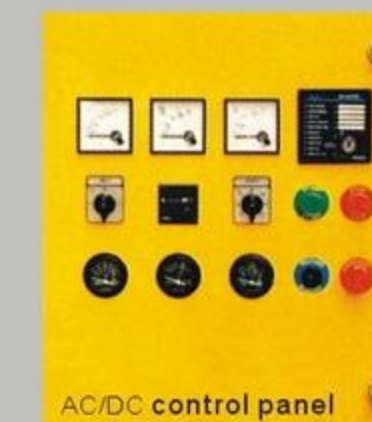
### Standard

- SCANIA diesel engine
- TAIYO alternator
- Radiator (fan, expansion tank)
- Documentation
- Exhaust Industrial silencer, expansion joints and connection flange
- 2 x 12VDC lead acid batteries
- Control panel with autostart module
- 3Poles MCCB panel

Generator Set/Diesel Engine/Alternator O&M Manuals, Product Quality Certificate, Test Report  
 Generator Set Maintenance Manual.

### Optional

- AMF or digital control panel
- ATS automatic load switch cabinet
- Synchronizing device
- 5A static battery charger
- Spare parts
- Acoustic canopy generator set
- Mobile generator
- Baseskid fuel tank capacity: 8Hours



- Long Operating Life
- Good Investment Value
- Good Range of Power Rating and Specification
- Low Use Cost
- High Operating Efficiency
- Low Maintenance Requirement

### Optional 1+1 Extended Warranty Policy

The main objective of this arrangement is to enhance the product credibility of the Scangen generating set and to make a distinction above the other market players.

Further details can be obtained from Scangen dealers on the 2 years extended warranty programme.