

Model No: SGR 25



Features / Benefits

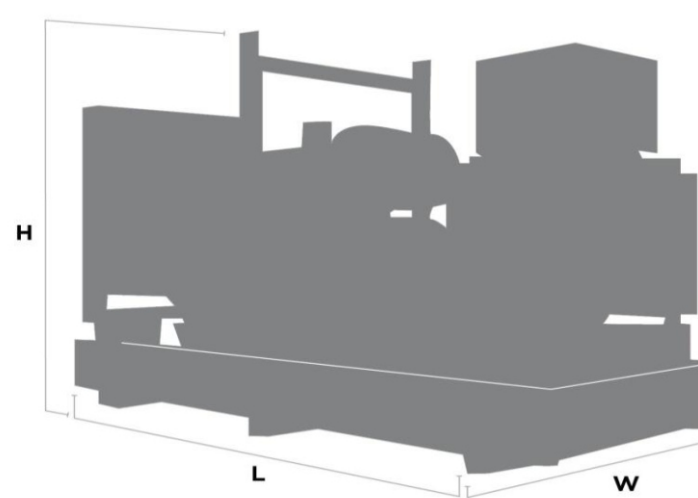
- CE compliant for stationary application
- Model available in openskid and soundproofed with galvanized rustproofed canopy.
- Designed, engineered and manufactured for an optimal performance
- External access to control and power panel
- Easy operation, maintenance and service.
- Wide range of options.

Technical data	50 Hz	60 Hz
Engine		
Exhaust emission Level	EU0	EPA4A
Performance class	G2	
■ Performance class in accordance with ISO 8528/5 (2005) taking into account the behaviour of the generator set in a permanent mode of operation with different load levels, as well as in a temporary mode of operation due to step loads.		

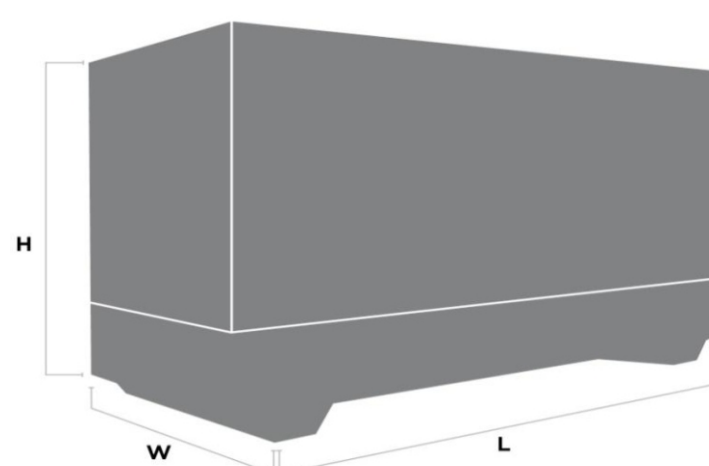
Mechanical structure	Openskid	canopy
Length (L) mm	1550	1860
Width (A) mm	700	840
Height (H) mm	1525	1230
Weight (kg)	547	727
Fuel tank capacity (l)	98	50,5
Acoustic pressure [LpA] (dBA @7m)	-	63
Acoustic power (dB(A))	-	89

Dimensions (mm)

Openskid



canopy



Note: These drawings are provided for illustration purposes only.

Ratings

Power according to the dedicated alternator

50 Hz	Prime Power	Prime Power	Standby Power	Standby Power
	kVA	kW	kVA	kW
380/220 V	20	16	22	18
400/230 V	20	16	22	18
415/240 V	20	16	22	17
60 Hz	Prime Power	Prime Power	Standby Power	Standby Power
	kVA	kW	kVA	kW
208/120 V	24	19	26	21
220/127 V	24	19	27	21
380/220 V	24	19	27	21
400/230 V	23	18,5	25	20
440/277 V	24	19	27	21
480/277 V	24	19	27	21

Single-phase

50 Hz	Prime Power	Prime Power	Standby Power	Standby Power
	kVA	kW	kVA	kW
220 V	-	-	-	-
230 V	20	16	22	18
240 V	-	-	-	-
60 Hz	Prime Power	Prime Power	Standby Power	Standby Power
	kVA	kW	kVA	kW
220/110 V	-	-	-	-
230/115 V	-	-	-	-
240/120 V	19	19	21	21

Prime Rating

PRIME POWER: Electrical power data available at a variable load without limits of hours per year. An overload of 10 % is allowed for 1 hour of every 12. In accordance with ISO 8528/1 (2005) – PRP

Standby Power

STANDBY POWER: Electrical power data at variable load in an emergency in accordance with standard ISO 8528/1 (2005) – ESP. Overloads of emergency power are not allowed.

Standard reference conditions

25 °C, 100 kPa and 30% relative humidity

Engine

General	50 Hz	60 Hz
Engine Brand	NPR	
Model	NPR 25	
R.P.M.	1500	1800
Net power (kWm)	20,3	23,9
Fuel	Diesel	
No. of cylinders	4	
Engine Capacity (c.c)	2216	
Bore (mm)	84	
Stroke (mm)	100	
Compression ratio	22,4:1	
Regulation class	ELECTRONIC	
Exhaust emission Level	EU0	EPA4A
TA-Luft compliant	TA-Luft 0	
50/60 Hz Switchable engine		

Cooling System	50 Hz	60 Hz
Fan air flow (m3/min)	40,2	47,4
Loss of radiator admissible load (Pa)	-	-
Cooling type	WATER	
Coolant capacity (l)	6,98	
Design temperature radiator	46°C	46°C
Maximum working Temp.	-	-

Engine heating system	
Coolant heater power (W)	1 x 750W

Lubrication System	
Oil capacity (l)	9
Maximum oil consumption (% fuel consumption)	0,3

Air intake system	50 Hz	60 Hz
Combustion air flow (m3/min)	1,45	1,74
Air filter	Medium	

Exhaust System				
	Openskid		canopy	
	50 Hz	60 Hz	50 Hz	60 Hz
T exhaust gas (°C)	505	510	505	510
Gas flow (m3/min)	3,94	4,76	3,94	4,76
Maxi. exhaust back pressure (kPa)	8,8	8,8	7,8	7,8
Number of exhaust	1		1	
Input diameter (")	2,5	2,5	2	2
Output diameter (")	2,5	2,5	2	2
Atenuattion (dB(A))	11		26	

Start system	
Voltage (V)	12
Battery type	1 x 12V 60 Ah 680 A

Fuel consumption table

Load level	PRIME 50 Hz			STAND-BY 50 Hz			PRIME 60 Hz			STAND-BY 60 Hz		
	(L/h)	Aut. (h) Openskid	Aut. (h) canopy	(L/h)	Aut. (h) Openskid	Aut. (h) canopy	(L/h)	Aut. (h) Openskid	Aut. (h) canopy	(L/h)	Aut. (h) Openskid	Aut. (h) canopy
25%	-	-	-	-	-	-	-	-	-	-	-	-
50%	2,8	35,0	18,0	-	-	-	3,4	28,8	14,9	-	-	-
75%	3,9	25,1	12,9	4,3	22,8	11,7	4,7	20,9	10,7	5,1	19,2	9,9
100%	5,2	18,8	9,7	5,9	16,6	8,6	6,0	16,3	8,4	6,7	14,6	7,5
110%	5,9	16,6	8,6	-	-	-	6,7	14,6	7,5	-	-	-

NOTE: range according to the standard configuration.

Electric Panel

- Grounding system TN quick change and emergency shutdown pushbutton.

Voltage (V)	400/230V	230V	480/277V	208/120V	220/127V	240/120V
Frequency	50 Hz	50 Hz	60 Hz	60 Hz	60 Hz	60Hz
Genset Circuit breaker	4P 32A	3P 100A R	4P 32A	4P 80A R	4P 63A	3P 100A R

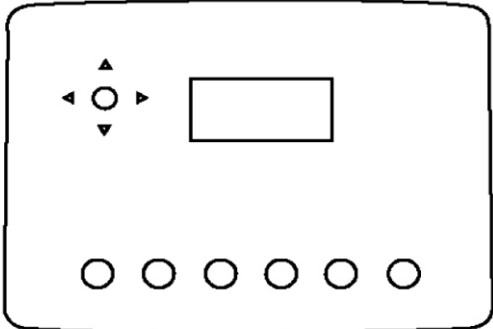
Battery electronic chargerDK - 309

Control Panel

- Grid monitor
- Independent operational mode buttons
- Alarms and status indicating LEDs
- Communications via USB
- Configurable through a PC with a Windows environment
- Operating modes: START-UP, SHUTDOWN AND AUTO
- Events history and programming of alarms, events, start-ups and shutdowns.

- Pixel LCD lighting
- 5 navigation menubuttons

- 32bit microprocessor.



Alternator

- 4 pole alternator
 - Lifetime lasting greased bearing
 - H class insulation
 - Brushless
 - 2/3 pitch
 - AVR
 - Incorporates electromagnetic emissions suppressor in accordance with CE legislation
 - Joining of engine and alternator through flexible disc coupling.
- Regulations:**

 - IEC 60034
 - ISO 8528/3
- Low wave distortion:**

 - THD < 4%
 - THF (IEC) < 2%
 - TIF (NEMA) < 50

- For models with AREP or MAUX excitation system
- Excitation system with auxiliary winding
 - Overload capacity 3 times the nominal current for at least 10 s

Model	SGR	SGR	SGR	SGR	SGR	SGR	SGR
Manufacturer							
Voltage (V)	400/230	400/230	230	480/277	208/120	220/127	240/120
Frequency	50Hz	50Hz	50Hz	60Hz	60Hz	60Hz	60Hz
Alternator power (kVA)	22		24,2	27	26	27,5	21,5
Power ratings	(SB 27)		(SB 27)	(SB 40)	(SB 40)	(SB 40)	(SB 40)
Number of wires	12	12	12	12	12	12	12
Winding	6		6	6	6	6	6
IP alternator	IP 23	IP 23	IP 23	IP 23	IP 23	IP 23	IP 23
Excitation system	SHUNT	MAUX	SHUNT	SHUNT	SHUNT	SHUNT	SHUNT
AVR model	R 220	DSR	R 220	R 220	R 250	R 250	R 220
Voltage Regulation	±1%	±1%	±0,5%	±1%	±1%	±1%	±0,5%
Performance at 75% p.f. 0.8 (%)	88	88	90	88	89	89	93
Performance at 100% p.f. 0.8 (%)	87	87	89	88	89	89	92
Direct sub. reactance X"d (p.u.)	7,7	9,6	8,1	8			
Subt. time constant (T"d) (ms)	7	14	5	7			
Zero sequence reactance (Xo) (ms)	0,1	3,3	14,9	0,1			
Short-circuit ratio (Kcc)	0,63	0,62	0,44	0,61			

Commercial references and ratings

Family:	SGR-25	50 Hz			60 Hz			
	Alternator model	Voltage	SGR	SGR	SGR	Voltage	SGR	SGR
	Prime/Standby Power rating (kVA) for alternative voltage configuration	415/240 V	20/21,5	20/21,5		480/277 V	24/27	
						440/254 V	24/27	24/27
		400/230 V	20/22	20/21,5		400/230 V	21/23	23/25
		380/220 V	20/22			380/220 V	21/23	23/25
						208/120 V	22/24	24/26
						220/127 V	23/25	24/27
		230 V		20/22,1		240/120 V		19,2/21,3
								

Regulations:

- The generator set has a CE Marking that includes the following directives:
- 2006/42/CE Machine Safety.
 - 2006/95/CEE Low Voltage.
 - 2004/108/CE Electromagnetic compatibility.
 - 97/68/CE Gases and contaminating particles emissions.
 - 2005/88/CE Noise emissions of machines outdoors in soundproof generator sets.
- Applicable international regulations:
- ISO 8528
 - ISO 3046
 - BS 5000
 - IEC 60034

Options

Mechanical

- o Galvanised Retention Bund (For soundproofed Units)
- o Integrated Retention Bund in baseframe
- o Fuel tank 24H
- o Fuel tank 48H
- o Auxiliary Double Walled Fuel Tanks
- o Connection to external fuel tank
- o Automatic Fuel Systems
- o Standard or different color (for gensets soundproofed)
- o Mounts-Shock Absorbers
- o Earth Leakage Protection

Control panel

- o DK-309 Remote display
- o DK-309 - Volt free signal
- o DK-309 - Inputs module
- o DK-309 - LED module
- o GSM modem (RS232 port required)
- o DK-309 - TCP/IP module
- o DK-309 Webnet Gateway (Ethernet, GPRS and GPS)
- o DK-309 Ethernet Gateway
- o DK-309 SNMP Gateway
- o DK-309 Battery charger 12V, 5A
- o Earth Leakage Protection
- o Analogue meters
- o Insulation protection

ATS panel

ATS panel with integrated mechanical and electrical interlocking device.
High number of operations

	400/230
	50Hz
ATS panel	4P 40A

ATS optional

- o DK-309 installed in ATS panel

Engine

- o Electronic Governor
- o High Performance Fuel filter water Separator
- o Residential Exhaust -35 dB(A) (Open-Skid Gensets)
- o Oil Sump Pump

Alternator

- o Alternator excitation type: AREP, PMI or PMG
- o Anti condensation heaters
- o Protection System 2 or 4
- o Special AVR

AMF Synchronizing control panel

- o IG-NT (SPtM)
- o IG-NT (MINT)
- o DK-309
- o DK-309

Island Synchronizing control panel

- o DK-309
- o IG-NT (MINT)

Maintenance kits (*)

- o Pak 500h
- o Pak 1000h
- o Pak 2000h
- o Start-up kit
- * Please consult our After-sales department for description

DISTRIBUTED BY:



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SOY DIŞ TİCARET

Osmanağa Mah. Gaziosmanpaşa Sok. Plevne Apt. No:5/6 Kadıköy - İSTANBUL
Tel:+90 216 330 69 60 Fax:+90 216 414 36 44 Gsm:+90 532 687 53 32
www.soy-gen.com e-mail:soygen@soy-gen.com