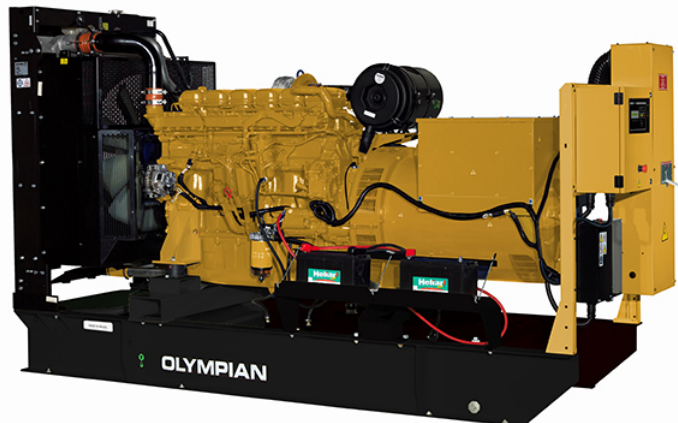


# OLYMPIAN™



## GES550-1

Diesel Generator Set  
Exclusively from your Cat® dealer

Image shown may not reflect actual package

<b>Output Ratings</b>		
<b>Generating Set Model - 3 Phase</b>	Prime*	Standby*
-	-	-
440/254V, 60Hz	500.0 kVA 400.0 kW	550.0 kVA 440.0 kW

\* Refer to ratings definitions on page 4.  
Ratings at 0.8 power factor.

<b>Technical Data</b>		
<b>Engine Make &amp; Model:</b>	Scania DC13072A	
<b>Alternator Model:</b>	GTA311A141	
<b>Control Panel:</b>	Optional	
<b>Base Frame Type:</b>	Heavy Duty Fabricated Steel	
<b>Circuit Breaker Type:</b>	3 Pole MCCB - Option	
<b>Frequency:</b>	<b>50 Hz</b>	<b>60 Hz</b>
<b>Engine Speed: RPM</b>	-	1800
<b>Fuel Tank Capacity: litres (US gal)</b>	-	250 (66.0)
<b>Fuel Consumption, Prime: l/hr (US gal/hr)</b>	-	100.7 (26.6)
<b>Fuel Consumption, Standby : l/hr (US gal/hr)</b>	-	113.1 (29.9)

## Engine Technical Data

Physical Data	
<b>Manufacturer:</b>	Scania
<b>Model:</b>	DC13072A
<b>No. of Cylinders/Alignment:</b>	6 / IN LINE
<b>Cycle:</b>	4 Stroke
<b>Induction:</b>	Turbocharged Air To Air Charge Cooled
<b>Cooling Method:</b>	Water
<b>Governing Type:</b>	Electronic
<b>Governing Class:</b>	ISO 8528 G1
<b>Compression Ratio:</b>	16.3:1
<b>Displacement:</b> l (cu.in)	12.7 (775.0)
<b>Bore/Stroke:</b> mm (in)	130.0 (5.1)/160.0 (6.3)
<b>Moment of Inertia:</b> kg m <sup>2</sup> (lb. in <sup>2</sup> )	3.11 (10627)
<b>Engine Electrical System:</b>	
-Voltage/Ground:	24/Negative
-Battery Charger Amps:	10
<b>Weight:</b> kg (lb) - Dry:	1084 (2390)
- Wet:	1100 (2425)

Air System	50 Hz	60 Hz
<b>Air Filter Type:</b>	Replaceable Element	
<b>Combustion Air Flow:</b>		
m <sup>3</sup> /min (cfm) -Standby:	-	30.8 (1088)
-Prime:	-	29.9 (1056)
<b>Max. Combustion Air Intake</b>		
<b>Restriction:</b> kPa (in H <sub>2</sub> O)	-	4.9 (19.7)
<b>Radiator Cooling Air Flow:</b>		
m <sup>3</sup> /min (cfm)	-	713.8 (25208)
<b>External Restriction to</b>		
<b>Cooling Air Flow:</b> Pa (in H <sub>2</sub> O)	-	220 (0.9)

Cooling System	50 Hz	60 Hz
<b>Cooling System Capacity:</b>		
l (US gal)	-	48.0 (12.7)
<b>Water Pump Type:</b>	Centrifugal	
<b>Heat Rejected to Water &amp; Lube Oil:</b> kW (Btu/min)		
-Standby:	-	166.0 (9440)
-Prime:	-	142.0 (8075)
<b>Heat Radiation to Room:</b> Heat radiated from engine and alternator		
kW (Btu/min) -Standby:	-	67.1 (3816)
-Prime:	-	57.9 (3293)
<b>Radiator Fan Load:</b> kW (hp)	-	17.0 (22.8)
Cooling system designed to operate in ambient conditions up to 50°C (122°F). Contact your local Olympian™ dealer for power ratings at specific site conditions.		

Lubrication System	
<b>Oil Filter Type:</b>	Spin-On, Full Flow
<b>Total Oil Capacity</b> l (US gal):	45.0 (11.9)
<b>Oil Pan</b> l (US gal):	34.0 (9.0)
<b>Oil Type:</b>	ASTM 2896 TBN 12
<b>Cooling Method:</b>	Water

Performance	50 Hz	60 Hz
<b>Engine Speed:</b> RPM	-	1800
<b>Gross Engine Power:</b> kW (hp)		
-Standby:	-	487.0 (653.0)
-Prime:	-	445.0 (597.0)
<b>BMEP:</b> kPa (psi)		
-Standby:	-	2548.0 (369.5)
-Prime:	-	2328.0 (337.7)

Fuel System				
<b>Fuel Filter Type:</b>	Paper Filter Element			
<b>Recommended Fuel:</b>	Class A2 Diesel			
<b>Fuel Consumption:</b> l/hr (US gal/hr)				
	<b>110% Load</b>	<b>100% Load</b>	<b>75% Load</b>	<b>50% Load</b>
<b>Prime</b>				
50 Hz	-	-	-	-
60 Hz	113.1 (29.9)	100.7 (26.6)	73.3 (19.4)	50.9 (13.4)
<b>Standby</b>				
50 Hz	-	-	-	-
60 Hz	113.1 (29.9)	81.0 (21.4)	54.9 (14.5)	
(based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2)				

Exhaust System	50 Hz	60 Hz
<b>Silencer Type:</b>	Industrial	
<b>Silencer Model &amp; Quantity:</b>	IND - 1	
<b>Pressure Drop Across</b>		
<b>Silencer System:</b> kPa (in Hg)	-	0.52 (0.154)
<b>Silencer Noise Reduction</b>		
<b>Level:</b> dB	-	18.4
<b>Max. Allowable Back</b>		
<b>Pressure:</b> kPa (in. Hg)	-	10.0 (3.0)
<b>Exhaust Gas Flow:</b>		
m <sup>3</sup> /min (cfm) -Standby:	-	90.7 (3203)
-Prime:	-	82.2 (2903)
<b>Exhaust Gas Temperature:</b> °C (°F)		
-Standby:	-	557 (1035)
-Prime:	-	521 (970)

## Alternator Performance Data

Data Item	50 Hz				60 Hz				
						380/220V			440/254V 220/127V
Motor Starting Capability* kVA	-	-	-	-	-	1250	-	-	1800
Short Circuit Capacity %	-	-	-	-	-	300	-	-	300
Reactances: Per Unit									
Xd	-	-	-	-	-	3.130	-	-	2.280
X'd	-	-	-	-	-	0.190	-	-	0.140
X''d	-	-	-	-	-	0.147	-	-	0.112

Reactances shown are applicable to prime ratings.

\*Based on 30% voltage dip at 0.6 power factor.

## Alternator Technical Data

Physical Data	
Manufactured for Olympian by:	OLYMPIAN
Model:	GTA311AI41
No. of Bearings:	1
Insulation Class:	H
Winding Pitch - Code:	2/3 - A
Wires:	12
Ingress Protection Rating:	IP21
Excitation System:	AUX COIL
AVR Model:	GRT7-TH4E

Operating Data	
Overspeed: RPM	2160
Voltage Regulation: (steady state)	+/- 0.5%
Wave Form NEMA = TIF:	50
Wave Form IEC = THF:	5.0%
Total Harmonic Content LL/LN:	5.0%
Radio Interference:	Suppression is in line with European Standard EN61000-6
Radiant Heat: kW (Btu/min)	
-50 Hz:	-
-60 Hz:	26.1 (1484)

