




CAT C4.4 generator set.



Image may not reflect actual generator set offered.

Technical specification for C4.4 Heat Exchanger cooled generator set with rating 99ekW @ 1800rpm 60Hz

	GENSET SPECIFICATIONS	Project no	
	CAT C4.4	Yard no	
	CAT GENERATOR 99ekW	Date	

Caterpillar diesel engine, type **C4.4TA**, a 4-stroke, 4-cylinder direct injection Inline-engine, with turbocharger and separate circuit after cooler


1.0	Basic model	
1.1	Caterpillar model	C4.4 DITA
1.2	Rating	99 ekW $\pm 3\%$ ¹⁾ at 1800 rpm
1.3	Specification	4-stroke, electronically controlled direct injection Inline-engine with turbocharger and separate circuit after cooler
1.4	Rotation	SAE standard, CCW viewed towards flywheel
1.5	Dimensions	Displacement: 4,4 liters Bore: 105 mm Stroke: 127 mm
1.6	Dry weight	Approximately 1029 kg
1.7	Voltage	Generator Voltage 3 x 440V 60Hz

Note¹⁾

Engine performance corrected to inlet air standard conditions of 99kPa and 25 °C. These values correspond to the standard atmospheric pressure and temperature in accordance with SAE J1995. Also included is a correction to standard fuel gravity and 35 degrees API having a lower heating value of 42,780kJ/kg when used at 29°C where the density is 838,9 g/l.

2.0	Generator	
2.1	Generator	CAT
2.2	Generator specifications	IP 23 440V 60Hz 123 KVA PF: 0,8 Max ambient temp 45 deg Celcius
2.3	Cooling	IP23 air cooled
2.4	Bearings	Roller bearing NDE
2.5	Heater	Standstill heater/space heater 230V
2.6	AVR	Solid state voltage regulator with integral voltage adjustment potentiometer
2.7	Shipped loose	Droop Kit -For use with 151-200 Amp full load current (needs CT coil)

3.0	Cooling system	
3.1	Cooling system	Heat Exchanger sized for 50deg. C ambient air & 32 deg.C sea water
3.2	HT Cooling system	Engine driven HT pump, centrifugal type Thermostat controlled water circulation Integrated oil cooler Integrated block heater, 240V SAE3 for single starters Shell and tube heat exchanger
3.3	LT Cooling system	Gear driven self-priming sea water pump
3.4	Yard Supplied	Cooling Water Equipment: Coolers All external piping and valves

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4.0	Exhaust system	
4.1	Exhaust specifications	Maximum design backpressure 4,5kPa.
4.2	Exhaust manifold	Water-cooled exhaust manifold, with 90deg dry exhaust outlet Exhaust bellow L160mm x Ø60mm diameter
4.3	Optional	Dry exhaust silencers available on request. Ask for quote


5.0	Air Inlet system	
5.1	Air Inlet specifications	Separate circuit aftercooler core, corrosion resistant, max air inlet temp 45 deg Celsius
5.2	Air Cleaners	Dry type air cleaners included
5.3	Turbochargers	Turbocharger, dry insulated

6.0	Fuel system	
6.1	Fuel system	Mechanical fuel injection pump with hi-pressure piping and fuel injectors. Fuel priming pump installed on engine.
6.2	Fuel Lines	Double walled fuel lines with mounted alarm reservoir and Spray shielding acc. to SOLAS requirements
6.3	Fuel specifications	Fuel type according to ISO8217, DMA/DMB/DMC (MGO/MDO)
6.4	Fuel Filters	Simplex secondary fuel filter (LH)
6.5	Shipped Loose	Primary Fuel Prefilter/waterseparator Simplex

7.0	Lube oil system	
7.1	Lube oil system	Closed fumes disposal system. (CCV) Oil filler and dipstick LH Side
7.3	Lube specifications	According to Cat specifications
7.4	Lube oil Filters	Engine oil filters

8.0	Starting system	
8.1	Starting system	Electric Starting motor with glow plug cold start system
8.2	Alternator	24V 55A charging alternator
8.3	Starting motor specifications	24V Starting motor Negative isolated ground electric system
8.4	Yard Supply	Starting equipment Set of batteries Battery charger

9.0	Engine control system	
9.1	Engine control system	Electronic governor
9.2	Engine control system specifications	Electronic governor with adjustable droop, suitable for short time parallel synchronisation

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10.0	Instrumentation	
10.1	Control system	CAT Premium control system – LH mounted Local start/stop and alarms
10.2	CT Coil	Current transformer - Instrumentation AC metering AMPS (to be fitted with Premium panel)
10.3	Yard supply	24V DC power supply

11.0	Mounting system	
11.1	Mounting system	Engine and generator mounted to a common baseframe for resiliently assembly towards ship structure.
11.2	Coupling specifications	Coupling plate

12.0	Paint	
12.1	Engine paint	Caterpillar standard yellow genset, black generator set base frame

13.0	Tests	
13.1	Engine tests	Engine Test at 100 and 10% Overload including Start Stop

14.0	Society Approval	
14.1	Certificates	Equipment delivered with relevant Type Approval certificates, DNV-GL.
14.2	Environmental certificates	NA No EIAPP needed below 130kW