





# **CUMMINS 4B3.9-G1**

27.5KVA|50HZ

# **Diesel Genset Features**

P.F=0.8 3Phase

Generating Set Performance		50Hz	
Service		Prime Power	Standby Power
Rated output	kVA	27.5	30.3
Active power output	kW	22	24
Rated speed	r.p.m	1500	
Available voltages	V	V 400/230 - 416/240 - 440/254 - 460/265 - 600/346 V	
Rated at power factor	0.8	0.8	

Ambient conditions of reference: 1000 mbar, 25°C, 30% relative humidity. Power according to ISO 3046 normative.

GTL Company was certified by TUV ISO9001 for design and manufacture diesel generator

GTL Gensets are compliant with EC mark which includes the following directives:

- 2006/42/CE Machinery safety.
- 2006/95/EC Low voltage.
- 2004/108/CE Electromagnetic compatibility.
- 2000/14/EC Sound Power level. Noise emissions outdoor equipment. (amended by 2005/88/EC)
- EN 12100, EN 13857, EN 60204

### Engine Specifications 1.500 r.p.m.

Prime Mover Performance		
Engine model		CUMMINS 4B3.9-G1
Rated output	kW	24
4 stroke diesel engine - injection type		Direct
Aspiration type		Naturally
Cylinders,number and arrangement		L4
Bore×Stroke	mm	102X120
Total displacement	L	3.9
Cooling system		WATER
Coolant capacity-engine only	L	7.2
Lube oil specifications		ACE A3 - A5
Specific fuel consumption(at full load)	(L/h)	7.1
Specific oil consumption(at full load)	(L/h)	N.A
Compression ratio		17.3:1
Speed governor type	Туре	BYC A/RSV Mechanical

P.R.P. Prime Power - ISO 8528:

PRIME POWER is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during a 24 hours period shall not exceed 80% of the prime power.

10% overload available for governing purposes only.

STANDBY POWER (ISO 3046 Fuel Stop power):

Power available for use at variable loads for limited annual time (500h), within the following limits of maximum operating time: 100% load 25h per year 90% load 200h per year. No overload available. Applicable in case of failure of the main in areas of reliable electrical network.

#### Alternator Specifications 1.500 r.p.m.

Alternator Data		
Model		GTL GS184D9
Output	kW/kVA	22/27.5
Poles	num	4
Winding leads		12
Winding conections (standard)		Standard
Insulation system	class	Class H
Protection		IP23
Coating type		Standard
Short circuit current capacity		300%
AVR-standard		SX460
Voltage regulation	%	±1%
Winding pitch		2/3
Overspeed	min <sup>-1</sup>	2250
Excitation system		SELF-EXCITED
Electrical featrues	TDF / THC	NO LOAD < 1.5%, NON-DISTORTING BALANCED LINEAR LOAD < 5.0%
	TIF	<50
	THF	<2%

# **Generating Set Installation Date**

EXHAUST SYSTEM			
Maximum allowed back pressure	kPa	10	
ELECTRIC STARTING SYSTEM			
Battery charging system, negative groud	Ampere	63/40	
Crankig motor	Volt	12/24	
LUBRICATION SYSTEM			
Minimum required lube system capacity - sump plus filters	L	10.9	
Maximum oil temperature	°C	121	

### Standard Control System

#### COMAP AMF 9



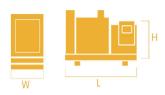
- Stand-by and prime-power application in one unit
- ► 5 languages in the controller & Translator functionality
- ► ECU support & Tier 4 Final ready
- Power over USB for controller's adjustment
- Fuel Pump control
- Alarms and gen-set status asignable to binaryoutputs
- Run Hours source ECU or internal
- Possibility to disable protections
- Start on low battery (only for native prime-powerconfiguration)

# Standard Configuration & Option

Item	Standard	Option
	Standard air filter	Heavy duty air filter
	Standard fuel filter	Air intake shutoff valve chalwin type
	Standard oil filter	Intake air heater
	Low coolant level sensor	Oil temperature sensor
	Exhaust gases compensator	Diesel-powered heater
Engine	24V Electrical system	Engine water heater
Engine	Radiator with bloweing fan	
	Electronic governor	
	Sender WT	
	Sender OP	
	Hot components and radiator guards	
	Mobile components guards	
	Self-excited and Self-regulated	Air inlet filter
	IP23 protection degree	IP44/IP54/IP55
Alternator	Insulation H class	Space heater/anti-condensation heater
Alternator		Environment protection
		Temperature detectors
		Parallel operation
	Battery isolator switch	Distribution board with sockets kit and power busbar
	3 poles circuit breaker	4 poles circuit breaker
Electrical system	Door opening alarm	Adjustable ELCB(Earth Fault)
	Battery charger 220-240V	Grouding rod
		ATS
	Water separator filter	Diverter valve kit for external fuel tank
	Low fuel level alarm	Automatic fuel refilling kit
Accessories	Oil extraction pump	Trailer
	Tool kit for maintenance	Residential silencer
	Voltage/Speed potentiometer	Electric engine fuel heater
	No Expansion tank	Expansion tank for coolant water

# **Generating Set transport data**

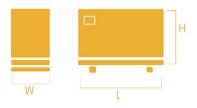
#### Dimensions(Open Skid Type) With Standard Fuel Tank



Over All Size		
Length	mm	1600
Width	mm	860
Height	mm	1360
Shipping Volume	m <sup>3</sup>	1.87
Dry Weight	Kg	820
Fuel Tank Capacity	L	55

- $\sqrt{\mbox{The complete gen-set}}$  is mounted as whole on a heavy-duty fabricated;
- $\sqrt{\mbox{Anti-vibration}}$  pads are fixed between the engine/ alternator feet and the base frame ;
- $\sqrt{\,}$  The generating set can be lifted or carefully pushed / pulled by the base frame;
- $\sqrt{}$  Dial type fuel gauge and drain plug on the fuel tank;
- $\sqrt{\text{Forklift pockets within base frame (up to 500kVA)}}$ ;

#### Dimensions(Silent Type) With Standard Fuel Tank



Over All Size		
Length	mm	2250
Width	mm	1060
Height	mm	1750
Shipping Volume	m <sup>3</sup>	4.17
Dry Weight	Kg	1200
Fuel Tank Capacity	L	55

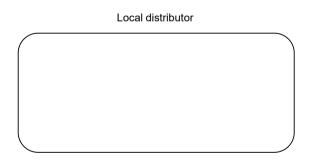
- $\sqrt{\rm All}$  canopy parts are designed with modular principles
- √ Without welding assembly
- √ Doors on each side
- $\sqrt{\rm All}$  metal canopy parts are painted by electrostatic
- $\sqrt{\text{Polyester powder paint}}$
- \* The weights are approximate.

GTL reserve the right of modify any characteristic without prior notice.

Weights and dimensions based on products standard and dry/illustrations may include optional equipment.

Technical date here described correspond with the available information at the moment of printing.

Industrial design under patent.



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