

G3412C

500 ekW/ 625 kVA/ 60 Hz/ 1800 rpm/ 208-600 V/ 0.8 Power Factor

Rating Type: STANDBY

Fuel Strategy: LOW EMISSIONS

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Image shown may not reflect actual configuration

Metric

English

Generator Set Specifications		
Maximum Rating @ 0.80 pf	625 kVA	500 ekW
Frequency	60 Hz	
Engine Speed (rpm)	1800 RPM	
Fuel	NATURAL GAS	
Emission Standards	Non-certified Emission Standards	
Performance Number	EM0746-03	
Altitude Capability at 25°C (77°F) ambient, above sea level	610 m	2000 ft

Engine Specifications		
Engine Model	G3412C	
Compression Ratio	11.40	
Aspiration	TA	
Governor Type	EIS	
Bore	N/A	N/A
Displacement	27 L	1650 in ³
Stroke	N/A	N/A
Aftercooler Temperature	54 °C	130 °F
Jacket Water Outlet	99 °C	210 °F

Package Dimensions*		
Length	4635 mm	182 in
Width	2104 mm	83 in
Height	2529 mm	100 in



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Package Fuel Consumption (ISO 3046/1)		
100% Load with Fan	11.28 MJ/ekw-hr	10694 Btu/ekw-hr
75% Load with Fan	11.90 MJ/ekw-hr	11285 Btu/ekw-hr
50% Load with Fan	13.11 MJ/ekw-hr	12434 Btu/ekw-hr

Exhaust System		
Combustion Air Flow (0° C, 101.3 kPa) / (77° F, 14.7 psia)	4.36 Nm3/bkW-hr	1575 ft3/min
Exhaust temperature - engine outlet	409.00 °C	769 °F
Exhaust gas flow (@engine outlet temp, 14.5psia)	4.65 Nm3/bkW-hr	3904 ft3/min

Heat Rejection		
Jacket Water Circuit (JW + OC + 1AC)	425 kW	24160 Btu/min
Heat rejection to jacket water (JW)	367 kW	20861 Btu/min
Heat rejection to atmosphere (Includes Generator)	92 kW	5255 Btu/min
Heat rejection to exhaust (LHV to 120°C / 248°F)	N/A	N/A

DEFINITIONS AND CONDITIONS

1. For ambient and altitude capabilities consult your Cat dealer.
2. Engine rating obtained and presented in accordance with ISO 3046/1. (Standard reference conditions of 77°F, 29.60 in Hg barometric pressure.) No overload permitted at rating shown.
3. Ratings are based on a natural gas fuel with a methane number with a LHV of 905 Btu/scf.
4. Gaseous emissions data measurements are consistent with those described in EPA 40 CFR PART 60 SUBPART JJJJ and ISO 8178 for measuring VOC, CO, and NOx.
5. Tolerance: Exhaust stack temperature +/- 8%, Inlet airflow rate +/- 5%, Exhaust flow +/- 6% Fuel rate +/- 5%, Heat rejection +/- 5%, Exhaust heat rejection +/- 10%

APPLICABLE CODES AND STANDARDS:

AS1359, CSA C22.2 No100-04, UL142,UL489, UL869, UL2200, NFPA37, NFPA70, NFPA99, NFPA110, IEC60034-1, ISO3046, ISO8528, NEMA MG1-22,NEMA MG1-33, 2006/95/EC, 2006/42/EC, 2004/108/EC.

Note: Codes may not be available in all model configurations. Please consult your local Cat Dealer representative for availability.