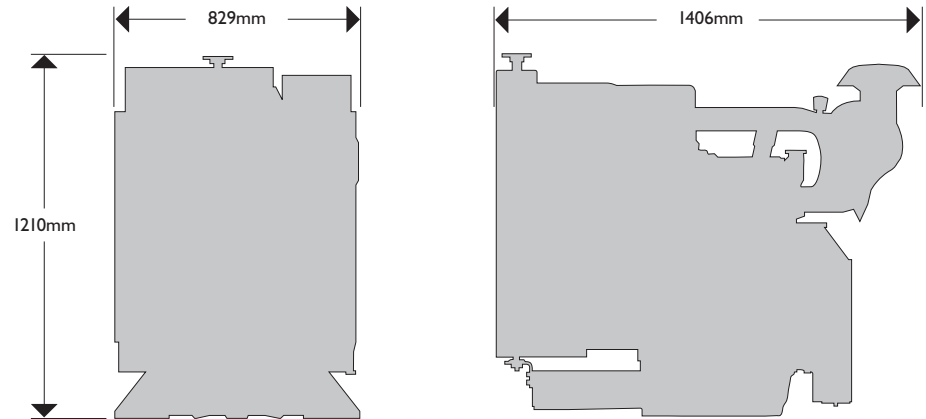


## G-DRIVE



## PERFORMANCE DATA

	G-TCAE	
	Prime	Standby
Calculated gen-set output:		
kWe (1)	104	112
kVA (2)	130	143
Nett engine power (kWm) at kVA rating (3)	113	125
Fuel consumption at:		
110% load	l/h (g/kWh)	32.0 (200.9)
100% load	l/h (g/kWh)	31.2 (214.7)
75% load	l/h (g/kWh)	23.7 (217.8)
50% load	l/h (g/kWh)	15.7 (214.5)
Governing	ISO8528 G2 Class	

Notes: (1) kWe calculation assumes 92% alternator efficiency  
 (2) kVA calculation assumes 0.8 Power Factor  
 (3) measured according to ISO14396  
 Prime Power and Stand-By as defined by ISO8528-1  
 Assume 8kW fan power consumption

## GENERAL TECHNICAL DATA

Technical Code	G-TCAE
Thermodynamic cycle	Diesel 4 stroke
Aspiration	TCAE
Arrangement	inline, 4 cyl.
Nominal bore x stroke	mm 106 x 135
Total displacement	cm <sup>3</sup> 4765
Valves per cylinder	4
Cooling	Liquid
Direction of rotation (viewed from crank nose)	Clockwise
Compression ratio	18
Rotational mass moment of inertia excluding flywheel	kgm <sup>2</sup> 0.24442
11.5" flywheel inertia	kgm <sup>2</sup> 0.6986
Exhaust emissions certificate	EU 97/68/EC St.3A
Minimum starting temperature without auxiliaries	°C -12
Dry weight	kg 591

## COOLING SYSTEM

		G-TCAE
Coolant capacity – (inc. Cooling Pack)	Ltrs	18
Cooling liquid maximum temperature	°C	110
Coolant specification approved (JCB HP high performance)		ASTM D6210
Cooling air flow requirement and canopy depression		3.26m³/sec @ 20mm H <sub>2</sub> O
Maximum working ambient temperature	°C	50
Fan type (standard)		26" Pusher

## FUEL SYSTEM

		HP Common Rail
Injection system		HP Common Rail
Fuel maximum intake restriction (@ electric lift pump inlet)	mbar	250
Fuel maximum intake temperature	°C	50
Engine pre-filter (electric lift pump)	Micron	5
Engine main filter	Micron	2
Fuel maximum return restriction	mbar	220
Water in fuel sensor		

## EXHAUST SYSTEM

Maximum allowable back pressure	mbar	100
Exhaust temperature at standby rating	°C	551*
Exhaust flow at standby rating	kg/h	568

## LUBRICATING SYSTEM

		G-TCAE
Lubricating oil pressure	bar	3.2
Maximum oil temperature:	°C	125
Engine angularity limits (continuous operation):		
Maximum front up and front down	deg	35
Maximum right hand and left hand	deg	35
Total system capacity – including pipes, filters etc	Ltrs	14
Minimum recommended oil grade	API	CH4 15-40
Oil filter maintenance service schedule	Hours	250
Oil consumption	% of fuel consumed	0.1

\*Stack temperature, not manifold

## ELECTRICAL SYSTEM

		G-TCAE
Starter and alternator	V	12, Earth return
Minimum cranking speed	rpm	100
Battery – minimum capacity recommended, not included		120Ah.
Battery – minimum cold cranking capacity recommended, not included		1000CCA
Communications standard		J1939

## AIR INDUCTION SYSTEM

Maximum allowable restriction with dirty air filter	mbar	80
Air requirement for combustion at Standby rating	kg/h	541
Air filter type		2 stage paper element

## STANDARD CONFIGURATION

Flywheel housing		SAE 3
Flywheel		SAE 11.5"
Intake manifold location		Left hand
Exhaust manifold/ turbocharger location		Right hand
Turbocharger		Central mounting
Fan transmission ratios		1.1:1
Distance between fan – crankshaft centres	mm	356
Main fuel filter & pre-filter both included		Electric lift pump
Fuel pump		High pressure common rail
Oil filter		Left side
Oil vapours blow-by circuit		Filtered, open
Oil heat exchanger		Left side
Oil fill positions		Top and left side
Starter motor		12V, 4.2kW
Alternator		12V, 95A
Engine stop		Electric
Power Take Off light-duty	kW	6.8
Finish		Lacquered

## OPTIONAL EQUIPMENT

Electrical connector kit.  
240/110V block heater.

