

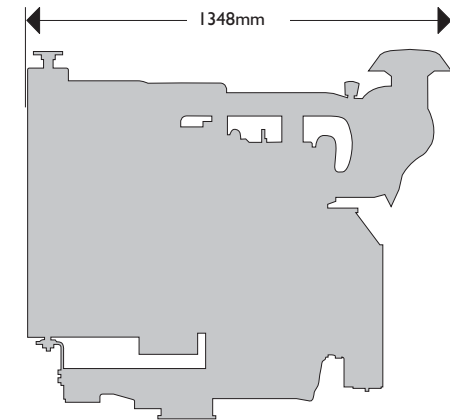
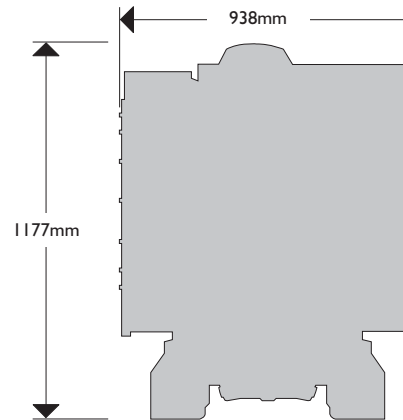


JCB DIESELMAX

**TURBOCHARGED AFTERCOOLED
109KVA PRIME @50HZ (120KVA STAND-BY)**



G-DRIVE



PERFORMANCE DATA

	G-TCA	
	Prime	Standby
Calculated Gen-set output:		
kWe (1)	87	96
kVA (2)	109	120
Engine Power (kWm) at kVA rating (3)	100	110
Fuel consumption at:		
110% load	l/h (g/kWh)	26.3 (202)
100% load	l/h (g/kWh)	24.1 (204)
75% load	l/h (g/kWh)	18.6 (211)
50% load	l/h (g/kWh)	13.0 (221)
Governing		ISO8528 G2 Class

Notes: (1) kWe calculation assumes 91% 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

GENERAL TECHNICAL DATA

Technical Code	G-TCA
Thermodynamic cycle	Diesel 4 stroke
Aspiration	TCA
Arrangement	inline, 4 cyl.
Nominal Bore x Stroke	mm 103 x 132
Total Displacement	cm ³ 4399
Valves per cylinder	4
Cooling	Liquid
Direction of rotation (viewed from crank nose)	Clockwise
Compression Ratio	17.5
Rotational mass moment of inertia excluding flywheel	kgm ² 0.2255
11.5" flywheel inertia	kgm ² 0.6986
Exhaust Emissions Certificate	EU 97/68/EC St.2
Minimum Starting temperature without auxiliaries	°C -12
Dry Weight	kg 618

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COOLING SYSTEM

		G-TCA
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		3.9m³/sec @ 16mm H ₂ O
Maximum working ambient temperature	°C	50
Fan type (standard)		24" Pusher

FUEL SYSTEM

		Rotary Mechanical
Injection system		Rotary Mechanical
Fuel maximum intake restriction	mbar	150
Fuel maximum intake temperature	°C	50
Engine Pre Filter	Micron	30
Engine Main Filter	Micron	5
Fuel maximum return restriction	mbar	250

EXHAUST SYSTEM

Maximum allowable back pressure	mbar	100
Exhaust temperature at Standby rating	°C	529
Exhaust flow at Standby rating	kg/h	530

LUBRICATING SYSTEM

		G-TCA & G-TC2
Lubricating oil pressure	bar	4.6
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	CF4
Oil filter maintenance service schedule	Hours	250
Oil Consumption	% of fuel consumed	0.1

ELECTRICAL SYSTEM

		G-TCA
Starter and Alternator	V	12, Earth return
Minimum Cranking Speed	rpm	100
Battery – minimum capacity recommended, not included		145Ah.
Battery – minimum cold cranking capacity recommended, not included		850CCA

AIR INDUCTION SYSTEM

Maximum allowable restriction with dirty air filter	mbar	80
Air requirement for combustion at Standby rating	kg/h	506
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		1.25
Distance between fan – crankshaft centres	mm	356
Main Fuel Filter & Pre Filter		Included
Fuel pump		Mechanical with primer
Oil filter		1, left side
Oil vapours blow-by circuit		Filtered, open
Oil heat exchanger		Left side
Oil filter position		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



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JCB Power Systems Ltd., Dove Valley Park, Foston, Derby DE65 5BX. Tel: 01889 590312. www.jcbpowersystems.com

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