



JCB DIESEL GENERATOR TECHNICAL SPECIFICATIONS



G2300QX



G2300X

Powered by MTU

ELECTRICAL		PRIME	STAND BY
Output Rating	kVA	2200	2360
	kW	1760	1888
Frequency	Hz	50	
Rated Speed	RPM	1500	
Standard Voltage	v	400/230	
Circuit Breaker	amp	3200	
Power Factor		0.8	

ALTERNATOR		
Poles	No	4
Winding Connections		Star
Frame Mounting		SAE 0-21"
Insulation	Class	H
Enclosure		IP23
Exciter System		Self-regulating brushless
Voltage Regulator		AVR (electronic)
Stead Voltage		+/- 1.5% (tested GI)
Bearing		Single bearing
Coupling		Flexible disc
Coating		Polyester Resin

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Standby: This rating is for the supply of continuous electrical power, at variable load, in the event of a Utility power failure. No overload is permitted.

ENGINE		PRIME	STAND BY
Output Rating	kW	1905	2102
Manufacturer		MTU	
Engine Model		16V4000G63	
Fuel		Diesel	
Injection		Direct	
Aspiration		Turbo Charged with Inter-cooler	
Cylinders		16V	
Bore and Stroke	mm	170 x 210	
Displacement	l	76.3	
Cooling		Water	
Engine Oil		SAE 10W40	
Compression Ratio		16.5: 1	
Fuel Consumption			
100% Load Prime	l/h	436.41	
75% Load Prime	l/h	330.74	
50% Load Prime	l/h	231.9	
100% Load Standby	l/h	492.73	
Lube oil consumption		1% of fuel consumption	
Engine Oil Capacity	l	300	
Coolant capacity	l	665	
Governor		Electronic	
Air Filter		Dry	

EXHAUST SYSTEM			
Maximum Temperature 100% Standby	°C	490	
Exhaust Gas Flow 100% Standby	m ³ /min	396	
Maximum Allowed Back Pressure	mbar	85	
Exhaust Size (Internal Diameter)	mm	251	

AIR SYSTEM			
Intake Air Flow 100% Standby	m ³ /h	9,360	
Cooling Air Flow 100% Standby	m ³ /h	140,000	
Alternator fan air flow	m ³ /s	2.69	

STARTING SYSTEM			
Starter Motor	kW	9 x 2	
Battery Capacity	Ah	300	
Auxiliary Voltage	V	24	

FUEL SYSTEM			
Fuel		Diesel	
Maximum Fuel Pressure at Connection	bar	+ 1.5	
Minimum Fuel Pressure at Connection	bar	-0.1	
Open Skid Fuel Tank Capacity	l	400	
Container Fuel Tank Capacity	l	2000	

WEIGHT AND DIMENSIONS - OPEN

Length	mm	7,450
Width	mm	2,300
Height	mm	2,547
Shipping Volume (Sea Ready)	m ³	43.64
Weight (Standard Build inclusive of oil and coolant)	Kg	13,914



JCB G2300X

WEIGHT AND DIMENSIONS - 40 HC ISO CONTAINER

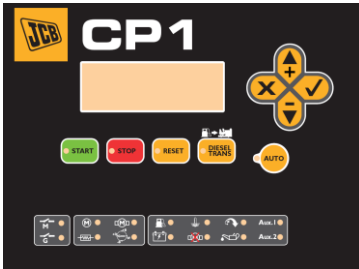
Length	mm	12,192
Width	mm	2,438
Height	mm	2,896
Height with Silencer fitted	mm	4,165
Shipping Volume/Container (Sea Ready)	m ³	123.8
Weight (Standard Build inclusive of oil and coolant)	Kg	25,214
Sound Level @ 7M	db(A)	81



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CONTROL PANEL – JCB CPI

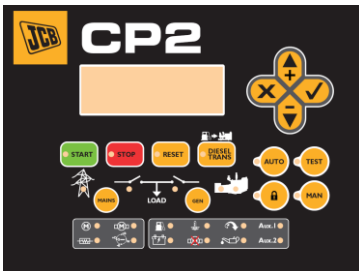
The JCB CPI control system is digital and has the capability to control, monitor and protect the generator. The display allows the user to easily monitor the status of the generator through an LCD display and LED outputs. It enables control of the generator operations through soft touch push button functionality and multi lingual capability



CONTROL PANEL – JCB CP2

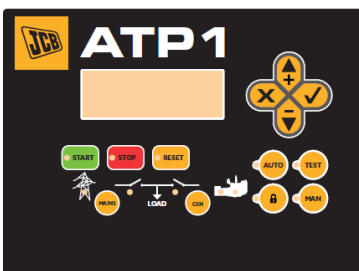
The JCB CP2 control system is digital and has the capability to control, monitor and protect the generator the same as the JCB CPI panel but additionally incorporates the functionality of the control module of the JCB ATP1.

The JCB CP2 Panel constantly monitors the mains and has to be hardwired into both mains and generator contactors. The display allows the user to easily monitor the status of the generator as well as controlling generator operation



CONTROL PANEL – JCB ATP1

The JCB ATP1 control module is integrated into an Automatic Transfer Switch, which provides automatic mains failure capability. The JCB ATP1 can communicate with a generator through either 2 wire start volt free contactors or CANBUS through CPI to ATP1 (not compatible with CP2). The JCB ATP1 when connected via CANBUS to the JCB CPI will give control functions and display generator information.



CONTROL PANEL FEATURES	CPI	CP2	ATPI
GENERATOR			
Phase to Phase Voltage	•	•	•
Phase to Neutral	•	•	•
Phase Amperage	•	•	•
Frequency	•	•	•
kVA	•	•	•
Kw	•	•	•
kVAr	•	•	•
Power Factor	•	•	•
MAINS			
Phase to Phase Voltage	x	•	•
Phase to Neutral	x	•	•
Phase Amperage	x	•	•
Frequency	x	•	•
kVA	x	x	•
Kw	x	x	•
kVAr	x	x	•
Power Factor	x	x	•
ENGINE			
Coolant Temperature	•	•	x
Oil Pressure	•	•	x
Fuel Level Percentage	•	•	x
Battery Voltage	•	•	x
Engine RPM	•	•	x
Battery Charge Alternator Voltage	•	•	x
ENGINE ALARMS			
High Water temperature	•	•	x
High Coolant Temperature	•	•	x
Low Oil Pressure	•	•	x
Low Coolant Level	•	•	x
Unexpected Shutdown	•	•	x
Failure to Stop	•	•	x
Battery Voltage Failure	•	•	x
Battery Charge Alternator Failure	•	•	x
Over Speed	•	•	x
Under Speed	•	•	x
Failure to Start	•	•	x
Low Fuel level	•	•	x
Emergency Stop	•	•	•
ALTERNATOR ALARMS			
High Frequency	•	•	•
Low Frequency	•	•	•
High Voltage	•	•	•
Low Voltage	•	•	•
Over Amperage	•	•	x
Short Circuit	•	•	x
Symmetry Between Phases	•	•	•
Incorrect Phasing	•	•	•
Inverse Power	•	•	x
Over Load	•	•	x
Generator Drop	x	x	•

• Standard x Not Available

CONTROL PANEL FEATURES	CPI	CP2	ATPI
MEASUREMENT			
Total Hours Run	•	•	•
Kilowatt Meter	•	•	•
Number of Starts	•	•	•
Number of Start Failures	•	•	•
Service Indicator	•	•	•
CONNECTIVITY			
Remote Screen (CAN)	△	△	△
Local Monitoring (CANBUS)	△	△	△
Local Monitoring (CANLAN)	△	△	△
Remote Monitoring (CANModem – Fixed)	△	△	△
Remote Monitoring (CANModem – GSM)	△	△	△
FEATURES			
Events History	•	•	•
External Start capability	•	•	•
Programmable Start Restriction	•	•	•
Mains Failure Start	•	•	•
Generator Contact Activation	•	x	x
Mains and Generators Contact Activation	x	•	•
Fuel Transfer Control	•	•	x
Engine Temperature	•	•	x
Manual Override	•	•	x
Programmable Alarms	•	•	x
Generator Start in Test Mode	•	•	x
Programmable Outputs	•	•	x
Multi Lingual	•	•	•
Programmable Timer	•	•	x
Synchronisation	•	•	x

• Standard x Not Available △ Optional

REFERENCE STANDARDS

JCB Generators are CE certified and conform to the following Directives (subject to a country requiring such standard):

- EN 12100, EN13857, EN60204
- 2006/42/CE Machinery safety
- 2006/95/EC Low voltage
- 2004/108/CE Electromagnetic compatibility
- 2000/14/EC Sound Power Level (amended by 2005/88/EC)
- 97/68/EC Emissions(amended by 2002/88/EC & 2004/26/EC)
- Ambient reference conditions 1000mbar, 25°C, 30% relative humidity ISO3046
- Power according to ISO 8528 and ISO 3046
- Information based on standard specification equipment unless otherwise stated.

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GENERATOR FEATURES	STANDARD	OPTIONAL
ENGINE		
Engine	•	x
Cooling Pack	•	x
Tropicalised Radiator	x	•
Heavy Duty Air Filter	•	x
MTU ADEC Governor	•	x
High Water Temperature Sender	•	x
Low Oil Pressure Sender	•	x
Oil Temperature Sender	•	x
Radiator Guards	•	x
Hot Component Guards	•	x
Manual Oil Drain Pump	•	x
Electric Oil Drain Pump	x	•
Fuel Heater	x	•
Electric Fuel Transfer Pump	x	•
Low Coolant Level Senders	•	x
Battery Charger	x	•
Water Jacket Heater	x	•
Exhaust Gas Compensator	•	x
Industrial Silencer – Open Set	•	x
Residential Silencer – Open Set	x	•
Residential Silencer – Container	•	x
ELECTRICS		
Alternator	•	x
Circuit Breaker	•	x
Busbar	•	x
Heavy Duty Batteries	•	x
Battery Isolator	•	x
Preparation for Earth Spike	•	x
Anti-condensation Heater	x	•
Optional Voltages	x	•
Class F Insulation	x	•
JCB CPI Digital Controller	•	x
JCB CP2 Digital Controller	x	•
JCB ATP1 Automatic Transfer Switch	x	•
CONTAINER		
External Emergency Stop Button	•	x
Heavy Duty Base Frame	•	x
Integral Fuel Tank	•	x
Rockwool Sound Attenuation	•	x
Window for External Control Panel View	•	x
Anti-condensation Heater	x	•