



JCB DIESEL GENERATOR TECHNICAL SPECIFICATIONS



G550QX



G550X

ELECTRICAL			
FREQUENCY	VOLTAGE	PRIME	STAND BY
50Hz	400/230v	502 kVA / 402 kW	550 kVA / 440 kW
60Hz	480/277v	N/A	N/A
60Hz	380/220v	N/A	N/A
60Hz	220/127v	N/A	N/A
Rated Speed	1500RPM - 50Hz		
Circuit Breaker	4 pole		
Power Factor	0.8		

All ratings are 3Ph to standard reference conditions ISO8528 RIC AC Gen-Sets.

ALTERNATOR	
Poles	4 pole
Winding Connections	Star
Insulation	Class H
Enclosure	IP23
Exciter System	Self-excited brushless
Voltage Regulator	AVR (electronic)
Bearing	Single bearing
Coupling	Flexible disc
Coating	Polyester resin

Prime: This rating is for the supply of continuous electrical power, at variable load, in lieu of commercially purchase power. There is no limitation on the annual hours of operation and 10% over load power can be supplied for 1 hour in 12.

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			
		50Hz	
Output Rating	kW	439 PRP	481 ESP
Manufacturer and model		Scania DC16 43A (10-24A)	
Fuel		Diesel	
Injection		Direct	
Aspiration		Turbo Charged and aftercooled	
Cylinders		V8	
Bore and Stroke	mm	127x154	
Displacement	l	15.6	
Cooling		Water	
Engine Oil Specification		ACEA E3, E4, E5 or E7	
Compression Ratio		18:1	
Engine Oil Capacity	l	35	
Governor		Electronic	
Air Filter		Dry	
Fuel Consumption		50Hz	
100% Load Standby	l/h	109.06	
100% Load Prime	l/h	98.01	
75% Load Prime	l/h	71.98	
50% Load Prime	l/h	49	
Oil consumption 100% Load	g/Kwh	0.3	

EXHAUST SYSTEM		
Maximum Temperature	°C	496
Exhaust Gas Flow	Kg/s	0.683
Heat evacuated through exhaust	Kcal/Kwh	613.7
Exhaust Flange Size (Internal Diameter)	mm	160

AIR SYSTEM		
Intake Air Flow 100% Standby	m ³ /h	1950
Total Cooling Air Flow 100% Standby	m ³ /s	9.8
Alternator fan airflow	m ³ /s	1.035

STARTING SYSTEM		
Starter Motor	kW	7
Battery Capacity	Ah	50 x 2
Auxiliary Voltage	V	24

FUEL SYSTEM		
Diesel Specification		EN590
Fuel Tank Capacity - Open Skid	l	740
- Canopy	l	740
Extended run tank capacity - canopy	l	2090

WEIGHT AND DIMENSIONS - OPEN

Length	mm	3600
Width	mm	1460
Height	mm	2090
Shipping Volume (Sea Ready)	m ³	10.99
Wet Weight (Standard Build inclusive of oil and water)	Kg	3313



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WEIGHT AND DIMENSIONS - CANOPY

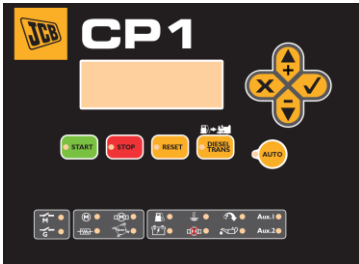
Length	mm	4500
Width	mm	1800
Height	mm	2340
Shipping Volume (Sea Ready)	m ³	18.95
Wet Weight (Standard Build inclusive of oil and water)	Kg	5023
		50Hz
Sound pressure (LpA) - 7m	dB	77



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CONTROL PANEL – JCB CPI (Standard)

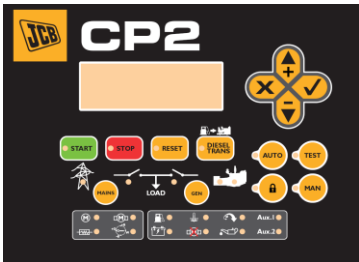
The JCB CPI control system is digital and has the capability to control, monitor and protect the generator. The display allows the user to easily monitor the status of the generator through an LCD display and LED outputs. It enables control of the generator operations through soft touch push button functionality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



CONTROL PANEL – JCB CP2 (Option)

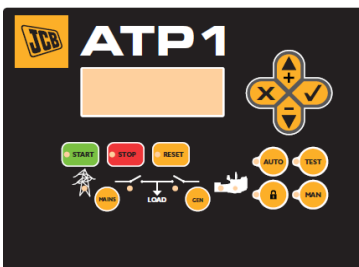
The JCB CP2 control system is digital and has the capability to control, monitor and protect the generator the same as the JCB CPI panel but additionally incorporates the functionality of the control module of the JCB ATP1.

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 (Option)

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 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.

GENERATOR FEATURES		STANDARD	OPTIONAL
ENGINE			
Engine		•	x
Cooling Pack		•	x
Tropical specification Radiator		x	△
Heavy Duty Air Filter		•	x
Electronic Governor		•	x
High coolant Temperature Sender		•	x
Low Oil Pressure Sender		•	x
High Oil Temperature Sender		•	x
Radiator Guards		•	x
Hot Component Guards		•	x
Manual Oil Drain Pump		•	x
Racor Fuel Filter		x	△
Fuel Heater		x	△
Electric Fuel Transfer Pump		x	△
Coolant Level Senders		•	x
Battery Charger		•	•
Water Jacket Heater		•	x
Industrial Silencer – Open Set		•	x
Residential Silencer – Open Set		x	△
Residential Silencer – Canopy		•	x
ELECTRICS			
Alternator		•	x
Circuit Breaker		•	x
Busbar		•	x
Heavy Duty Gel Batteries		•	x
Battery Isolator		•	x
Preparation for Earth Spike		•	x
Anti-condensation Heater		x	△
Optional Voltages		x	△
JCB CP1 Digital Controller		•	x
JCB CP2 Digital Controller		x	△
JCB ATP1 Automatic Transfer Switch		x	△
External Emergency Stop Button		•	x

• Standard x Not Available △ Optional