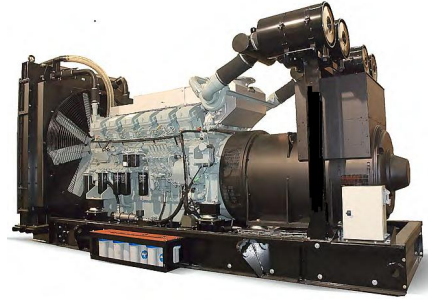




# JCB DIESEL GENERATOR TECHNICAL SPECIFICATIONS



G850QX



G850X

Powered by MITSUBISHI

ELECTRICAL		PRIME	STAND BY
Output Rating	kVA	775	853
	kW	620	682
Frequency	Hz	50	
Rated Speed	RPM	1500	
Standard Voltage	v	400/230	
Available Voltages	v	415/240, 380/220	
Circuit Breaker	amp	1250	
Power Factor		0.8	

ALTERNATOR		
Poles	No	4
Winding Connections		Star
Frame Mounting		SAE 0-18"
Insulation	Class	H
Enclosure		IP23
Exciter System		Self-regulating brushless
Voltage Regulator		AVR (electronic)
Bearing		Single bearing sealed
Coupling		Flexible disc

**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		PRIME	STAND BY
Output Rating	kW	657	724
Manufacturer		MITSUBISHI	
Engine Model		S12A2-PTA	
Fuel		Diesel	
Injection		Direct	
Aspiration		Turbo Charged and aftercooled	
Cylinders	L	12V	
Bore and Stroke	mm	150 x 160	
Displacement	l	33.93	
Cooling		Water	
Engine Oil		API CD CF – SAE 30 - SAE 40	
Compression Ratio		14.5:1	
Fuel Consumption			
100% Load Prime	l/h	166.24	
75% Load Prime	l/h	125.46	
50% Load Prime	l/h	88.31	
100% Load Standby	l/h	183.19	
Engine Oil Capacity	l	120	
Coolant capacity	l	215	
Governor		Electronic	
Air Filter		Heavy Duty	

EXHAUST SYSTEM		
Maximum Temperature 100% Standby	°C	500
Exhaust Gas Flow 100% Standby	m <sup>3</sup> /min	170
Maximum Allowed Back Pressure	mm H <sub>2</sub> O	600
Exhaust Flange Size (Internal Diameter)	mm	200

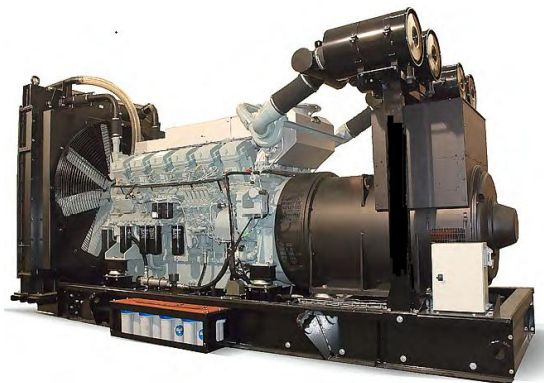
AIR SYSTEM		
Intake Air Flow 100% Standby	m <sup>3</sup> /hr	3840
Cooling Air Flow 100% Standby	m <sup>3</sup> /s	19

STARTING SYSTEM		
Starter Motor	kW	7.5 x 2
	CV	10.2 x 2
Battery Capacity	Ah	300
Auxiliary Voltage	VCC	24
Starter Current – Maximum Power	Amp	720
	– Firing Speed	Amp

FUEL SYSTEM		
Diesel Specification		BS2869 class A or ASTM D975No.2
Maximum suction head of feed pump	mm Hg	75
Maximum static head return & leak off	mm Hg	150
Open Skid Fuel Tank Capacity	l	300
Container Fuel Tank Capacity	l	1000

## WEIGHT AND DIMENSIONS - OPEN

Length	mm	4,100
Width	mm	1,725
Height	mm	2,080
Shipping Volume (Sea Ready)	m <sup>3</sup>	14.71
Wet Weight (Standard Build)	Kg	7,750
Dry Weight (Standard Build)	Kg	7,429



### JCB G850X

## WEIGHT AND DIMENSIONS - 20 ISO CONTAINER

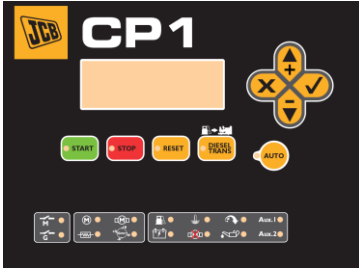
Length	mm	6,058
Width	mm	2,438
Height	mm	2,896
Shipping Volume (Sea Ready)	m <sup>3</sup>	42.77
Wet Weight (Standard Build)	Kg	11,750
Dry Weight (Standard Build)	Kg	11,429
Sound Level @ 7M	db(A)	75



### JCB G850QX

## CONTROL PANEL – JCB CP1

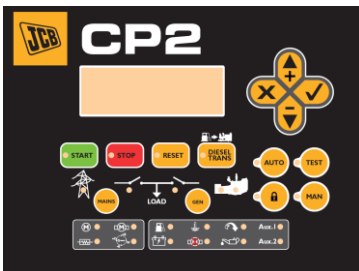
The JCB CPI control system is digital and has the capability to control, monitor and protect the generator. The display allows the user to easily monitor the status of the generator through an LCD display and LED outputs. It enables control of the generator operations through soft touch push button functionality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



## CONTROL PANEL – JCB CP2

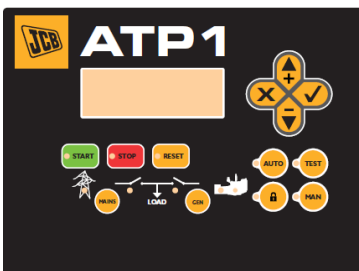
The JCB CP2 control system is digital and has the capability to control, monitor and protect the generator the same as the JCB CPI panel but additionally incorporates the functionality of the control module of the JCB ATP1.

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
<b>GENERATOR</b>			
Phase to Phase Voltage	•	•	•
Phase to Neutral	•	•	•
Phase Amperage	•	•	•
Frequency	•	•	•
kVA	•	•	•
Kw	•	•	•
kVAr	•	•	•
Power Factor	•	•	•
<b>MAINS</b>			
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	•
<b>ENGINE</b>			
Coolant Temperature	•	•	x
Oil Pressure	•	•	x
Fuel Level Percentage	•	•	x
Battery Voltage	•	•	x
Engine RPM	•	•	x
Battery Charge Alternator Voltage	•	•	x
<b>ENGINE ALARMS</b>			
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	•	•	•
<b>ALTERNATOR ALARMS</b>			
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
<b>MEASUREMENT</b>			
Total Hours Run	•	•	•
Kilowatt Meter	•	•	•
Number of Starts	•	•	•
Number of Start Failures	•	•	•
Service Indicator	•	•	•
<b>CONNECTIVITY</b>			
Remote Screen (CAN)	△	△	△
Local Monitoring (CANBUS)	△	△	△
Local Monitoring (CANLAN)	△	△	△
Remote Monitoring (CANModem – Fixed)	△	△	△
Remote Monitoring (CANModem – GSM)	△	△	△
<b>FEATURES</b>			
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:

- EN ISO 13857:2008
- 2006/95/EC
- 89/336/EEC
- 2000/14/EC (amended by 2005/88/EC)
- 97/68/EC (amended by 2002/88/EC & 2004/26/EC)
- Ambient reference conditions 1000mbar, 25°C, 30% relative humidity ISO8528
- Power according to ISO3046

GENERATOR FEATURES		STANDARD	OPTIONAL
<b>ENGINE</b>			
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
<b>ELECTRICS</b>			
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	•
External Emergency Stop Button		•	x
<b>FABRICATIONS</b>			
Heavy Duty Base Frame		•	x
Integral Fuel Tank		•	x
ISO Container 20' (6,096mm)		x	•
Double Skin Fuel Tank		x	•
Rockwool Sound Attenuation		x	•
Window for External Control Panel View		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	•