

# JCB DIESEL GENERATOR TECHNICAL SPECIFICATIONS





G1000QX G1000X

### Powered by MITSUBISHI

ELECTRICAL		PRIME	STAND BY
Output Rating	kVA	916	1006
	kW	733	805
Frequency	Hz	50	
Rated Speed	RPM	1500	
Standard Voltage	V	400/230	
Available Voltages	V	415/240 – 380/220	
Circuit Breaker	amp	1600	
Power Factor		0.8	

ALTERNATOR			
Poles	No	4	
Winding Connections		Star	
Frame Mounting		SAE 0-18"	
Insulation	Class	Н	
Enclosure		IP23	
Exciter System		Self-excited brushless	
Voltage Regulator		AVR (electronic)	
Steady Voltage		+/- 1.5%	
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	771	850
Manufacturer		MITSUBISHI	
Engine Model		S12A2-PTA2-S	
Fuel		Diesel	
Injection			Direct
Aspiration		Turbo Cha	rged and after-cooled
Cylinders	L		I2V
Bore and Stroke	mm		150 x 160
Displacement	I		33.93
Cooling			Water
Engine Oil		API CD C	F – SAE 30 - SAE 40
Compression Ratio			15.3:1
Fuel Consumption			
100% Load Prime	l/h		195
75% Load Prime	l/h		147
100% Load Standby	l/h		220
Lube oil Consumption, Full load	g/kwh		0.8
Engine Oil Capacity			120
Coolant capacity	I		215
Governor		Electronic	
Air Filter		Dry	
EXHAUST SYSTEM			
Maximum Temperature 100% Standby	°C	520	
Exhaust Gas Flow 100% Standby	m³/min	222	
Maximum Allowed Back Pressure	mm H²0	600	
Exhaust Flange Size (Internal Diameter)	mm		200
AIR SYSTEM			
Intake Air Flow 100% Standby	m³/min	84	
Cooling Air Flow 100% Standby	m³/min	1380	
STARTING SYSTEM			
Starter Motor	kW		7.5 x 2
Battery Capacity	Ah	300	
Auxiliary Voltage	V	24	
Starter Current – Maximum Power	Amp		720
– Firing Speed	Amp	380	

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	Į	350
Container Fuel Tank Capacity	I	1000

WEIGHT AND DIMENSIONS - OPEN				
Length	mm	4,270		
Width	mm	2,022		
Height	mm	2,150		
Shipping Volume (Sea Ready)	m³	18.56		
Wet Weight (Standard Build)	Kg	7,800		
Dry Weight (Standard Build)	Kg	7,479		



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WEIGHT AND DIMENSIONS - 20 ISO CONTAINER				
Length	mm	6,058		
Width	mm	2,438		
Height	mm	2,896		
Shipping Volume (Sea Ready)	m³	42.77		
Wet Weight (Standard Build)	Kg	11,800		
Dry Weight (Standard Build)	Kg	11,479		
Sound Level @ 7M	db(A)	76		



JCB G1000QX

#### **CONTROL PANEL – JCB CPI**

The JCB CP1 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**

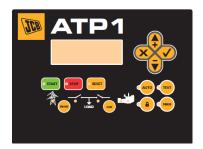
The JCB CP2 control system is digital and has the capability to control, monitor and protect the generator the same as the JCB CP1 panel but additionally incorporates the functionality of the control module of the JCB ATP1.

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 ATPI**

The JCB ATPI control module is integrated into an Automatic Transfer Switch, which provides automatic mains failure capability. The JCB ATPI can communicate with a generator through either 2 wire start volt free contactors or CANBUS through CPI to ATPI (not compatible with CP2). The JCB ATPI 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	Х	•	•
Frequency	X	•	•
kVA	X	х	•
Kw	x	x	•
kVAr	x	X	•
Power Factor	X	X	•
ENGINE		^	
Coolant Temperature	•	•	x
Oil Pressure	•	•	×
Fuel Level Percentage	•	•	×
Battery Voltage	•	•	X
Engine RPM	•	•	
Battery Charge Alternator Voltage	•	•	X
ENGINE ALARMS		-	X
High Water temperature	•	•	
	•	•	X
High Coolant Temperature Low Oil Pressure	•	•	X
Low Coolant Level	•	•	X
	•	•	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)	Δ	Δ	Δ
Local Monitoring (CANBUS)	Δ	Δ	Δ
Local Monitoring (CANLAN)	Δ	Δ	Δ
Remote Monitoring (CANModem – Fixed)	Δ	Δ	Δ
Remote Monitoring (CANModem – GSM)	Δ	Δ	Δ
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	•	•	х
Multi Lingual	•	•	•
Programmable Timer	•	•	Х
Synchronisation	•	•	x

<sup>•</sup> Standard x Not Available  $\triangle$  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
ENGINE		
Engine	•	X
Cooling Pack	•	X
Tropicalised Radiator	х	•
Heavy Duty Air Filter	•	X
Electronic Governor	•	X
High Water Temperature Sender	•	х
Low Oil Pressure Sender	•	Х
Oil Temperature Sender	•	X
Radiator Guards	•	X
Hot Component Guards	•	X
Manual Oil Drain Pump	•	X
Electric Oil Drain Pump	Х	•
Fuel Heater	Х	•
Electric Fuel Transfer Pump	X	•
Low Coolant Level Senders	•	x
Battery Charger	х	•
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	•	
Busbar	•	X
Heavy Duty Batteries	•	X X
Battery Isolator	•	X
Preparation for Earth Spike	•	
Anti-condensation Heater		X •
	X	•
Optional Voltages Class F Insulation	X	•
	X	
JCB CP1 Digital Controller		×
JCB CP2 Digital Controller	X	•
JCB ATP1 Automatic Transfer Switch	X	
External Emergency Stop Button	•	X
FABRICATIONS		
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	Х	•
Anti-condensation Heater	X	•
Optional Voltages	X	•
Class F Insulation	X	•
JCB CP1 Digital Controller	•	X
JCB CP2 Digital Controller	X	•
JCB ATP1 Automatic Transfer Switch	X	•