

JCB DIESEL GENERATOR TECHNICAL SPECIFICATIONS







G860X

Powered by MTU

ELECTRICAL		PRIME	STAND BY	
Output Rating	kVA	782	860	
	kW	626	688	
Frequency	Hz	50		
Rated Speed	RPM	1500		
Standard Voltage	٧	400/230		
Circuit Breaker	amp	1250		
Power Factor		0.8		

ALTERNATOR		
Poles	No	4
Winding Connections		Star
Frame Mounting		SAE 0-18"
Insulation	Class	Н
Enclosure		IP23
Exciter System		Self-regulating brushless
Voltage Regulator		AVR (electronic)
Stead Voltage		+/- 1.5% (tested G1)
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.

Output Rating kW 663 733 Manufacturer MTU Engine Model 12720000G65 Fuel Diesel Injection Direct Aspiration Turbo Charged with After-Cooler Cylinders 12V Bore and Stroke mm 130 x 150 Displacement 1 23.88 Cooling Water Engine Oil SAE 10W40 Cooling Water 66:1 Fellonge Marker 66:1 Fellonge Fellonge Fellonge Fellonge Fellonge Fellonge Marker 66:1 Fellonge Fellonge Fellonge Fellonge Fellonge	ENGINE		PRIME	STAND BY
Engine Mode 12V2000G65 Fuel	Output Rating	kW	663	733
Diese Direct	Manufacturer		MTU	
Injection	Engine Model		12V2000G65	
Aspiration	Fuel		Diesel	
Cylinders	Injection			
Cylinders	Aspiration		Turbo Char	ged with After-Cooler
Displacement	Cylinders			
Cooling	Bore and Stroke	mm		130 x 150
SAE 10W40	Displacement	[23.88
Compression Ratio I6:	Cooling			Water
Fuel Consumption 100% Load Prime 1/h 163.24 75% Load Prime 1/h 123.04 50% Load Prime 1/h 123.04 50% Load Prime 1/h 84.85 100% Load Standby 1/h 181.47 181.47 181.47 181.47 181.47 181.47 181.47 181.47 181.47 181.47 181.47 181.47 181.47 181.47 181.47 181.47 181.49	Engine Oil		9	SAE 10W40
100% Load Prime	Compression Ratio			l6: l
1	Fuel Consumption			
Solution	100% Load Prime	l/h		163.24
100% Load Standby	75% Load Prime	l/h		123.04
Engine Oil Capacity Lube Oil Consumption 100% Stand By Lyh List Coolant capacity List Governor Lister List Britter List Br	50% Load Prime	l/h		84.85
Lube Oil Consumption 100% Stand By I/h I.81 Coolant capacity I I30 Governor Electronic Air Filter Dry EXHAUST SYSTEM Maximum Temperature 100% Standby °C Exhaust Gas Flow 100% Standby m3/min Maximum Allowed Back Pressure mbar Exhaust Flange Size (external diameter) mm 200 AIR SYSTEM Intake Air Flow 100% Standby m³/h 3,240 Cooling Air Flow 100% Standby m³/h 59,040 STARTING SYSTEM Starter Motor kW Battery Capacity Ah Auxiliary Voltage V V 24 Starter Current – Maximum Power Amp - Firing Speed Amp Bosel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	100% Load Standby	l/h		181.47
Coolant capacity I 130 Governor Electronic Air Filter Dry EXHAUST SYSTEM Maximum Temperature 100% Standby °C 565 Exhaust Gas Flow 100% Standby m3/min 150 Maximum Allowed Back Pressure mbar 85 Exhaust Flange Size (external diameter) mm 200 AIR SYSTEM Intake Air Flow 100% Standby m³/h 3,240 Cooling Air Flow 100% Standby m³/h 59,040 STARTING SYSTEM Starter Motor kW 9 Battery Capacity Ah 260 Auxiliary Voltage V 24 Starter Current – Maximum Power Amp 1750 – Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	Engine Oil Capacity	I		77
Governor Electronic Air Filter Dry EXHAUST SYSTEM Maximum Temperature 100% Standby °C 565 Exhaust Gas Flow 100% Standby m3/min 150 Maximum Allowed Back Pressure mbar 85 Exhaust Flange Size (external diameter) mm 200 AIR SYSTEM Intake Air Flow 100% Standby m3/h 3,240 Cooling Air Flow 100% Standby m3/h 59,040 STARTING SYSTEM Starter Motor kW 9 Battery Capacity Ah 260 Auxiliary Voltage V 24 Starter Current – Maximum Power Amp 1750 — Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	Lube Oil Consumption 100% Stand By	l/h		1.81
Air Filter Dry EXHAUST SYSTEM Maximum Temperature 100% Standby °C 565 Exhaust Gas Flow 100% Standby m3/min 150 Maximum Allowed Back Pressure mbar 85 Exhaust Flange Size (external diameter) mm 200 AIR SYSTEM Intake Air Flow 100% Standby m3/h 3,240 Cooling Air Flow 100% Standby m3/h 59,040 STARTING SYSTEM Starter Motor kW 9 Battery Capacity Ah 260 Auxiliary Voltage V 24 Starter Current – Maximum Power Amp 1750 — Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	Coolant capacity	I		
EXHAUST SYSTEM Maximum Temperature 100% Standby °C 565 Exhaust Gas Flow 100% Standby m3/min 150 Maximum Allowed Back Pressure mbar 85 Exhaust Flange Size (external diameter) mm 200 AIR SYSTEM Intake Air Flow 100% Standby m3/h 3,240 Cooling Air Flow 100% Standby m3/h 59,040 STARTING SYSTEM Starter Motor kW 9 Battery Capacity Ah 260 Auxiliary Voltage V 24 Starter Current – Maximum Power Amp 1750 — Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	Governor			
Maximum Temperature 100% Standby °C 565 Exhaust Gas Flow 100% Standby m3/min 150 Maximum Allowed Back Pressure mbar 85 Exhaust Flange Size (external diameter) mm 200 AIR SYSTEM Intake Air Flow 100% Standby m³/h 3,240 Cooling Air Flow 100% Standby m³/h 59,040 STARTING SYSTEM Starter Motor kW 9 Battery Capacity Ah 260 Auxiliary Voltage V 24 Starter Current – Maximum Power Amp 1750 – Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Amp +0.5 Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	Air Filter		Dry	
Maximum Temperature 100% Standby °C 565 Exhaust Gas Flow 100% Standby m3/min 150 Maximum Allowed Back Pressure mbar 85 Exhaust Flange Size (external diameter) mm 200 AIR SYSTEM Intake Air Flow 100% Standby m³/h 3,240 Cooling Air Flow 100% Standby m³/h 59,040 STARTING SYSTEM Starter Motor kW 9 Battery Capacity Ah 260 Auxiliary Voltage V 24 Starter Current – Maximum Power Amp 1750 – Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Amp +0.5 Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980				
Exhaust Gas Flow 100% Standby m3/min 150 Maximum Allowed Back Pressure mbar 85 Exhaust Flange Size (external diameter) mm 200 AIR SYSTEM Intake Air Flow 100% Standby m3/h 3,240 Cooling Air Flow 100% Standby m3/h 59,040 STARTING SYSTEM Starter Motor kW 9 Battery Capacity Ah 260 Auxiliary Voltage V 24 Starter Current – Maximum Power Amp 1750 — Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	EXHAUST SYSTEM			
Maximum Allowed Back Pressure mbar 85 Exhaust Flange Size (external diameter) mm 200 AIR SYSTEM Intake Air Flow 100% Standby m³/h 3,240 Cooling Air Flow 100% Standby m³/h 59,040 STARTING SYSTEM Starter Motor kW 9 Battery Capacity Ah 260 Auxiliary Voltage V 24 Starter Current – Maximum Power Amp 1750 – Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	Maximum Temperature 100% Standby	°C		565
Exhaust Flange Size (external diameter) mm 200 AIR SYSTEM Intake Air Flow 100% Standby m³/h 3,240 Cooling Air Flow 100% Standby m³/h 59,040 STARTING SYSTEM Starter Motor kW 9 Battery Capacity Ah 260 Auxiliary Voltage V 24 Starter Current – Maximum Power Amp 1750 — Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	Exhaust Gas Flow 100% Standby	m3/min		
AIR SYSTEM Intake Air Flow 100% Standby m³/h 3,240 Cooling Air Flow 100% Standby m³/h 59,040 STARTING SYSTEM Starter Motor kW 9 Battery Capacity Ah 260 Auxiliary Voltage V 24 Starter Current – Maximum Power Amp 1750 — Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	Maximum Allowed Back Pressure	mbar	85	
Intake Air Flow 100% Standby Cooling Air Flow 100% Standby STARTING SYSTEM Starter Motor Battery Capacity Ah Starter Current – Maximum Power Firing Speed Amp Diesel Specification Maximum Fuel Pressure at Connection Minimum Fuel Pressure at Connection Open Skid Fuel Tank Capacity Maximum Fuel Pressure at Connection Open Skid Fuel Tank Capacity Maximum Fuel Pressure at Connection P83/h 3,240 3,240 AW AW P9 AM P AM P B AM AM AM AM B AM B AM B AM AM	Exhaust Flange Size (external diameter)	mm		
Intake Air Flow 100% Standby Cooling Air Flow 100% Standby STARTING SYSTEM Starter Motor Battery Capacity Ah Starter Current – Maximum Power Firing Speed Amp Diesel Specification Maximum Fuel Pressure at Connection Minimum Fuel Pressure at Connection Open Skid Fuel Tank Capacity Maximum Fuel Pressure at Connection Open Skid Fuel Tank Capacity Maximum Fuel Pressure at Connection P83/h 3,240 3,240 AW AW P9 AM P AM P B AM AM AM AM B AM B AM B AM AM				
Cooling Air Flow 100% Standby STARTING SYSTEM Starter Motor Battery Capacity Ah 260 Auxiliary Voltage V Starter Current – Maximum Power Firing Speed Amp Diesel Specification Maximum Fuel Pressure at Connection Minimum Fuel Pressure at Connection Den Skid Fuel Tank Capacity I 980	AIR SYSTEM			
STARTING SYSTEM Starter Motor	Intake Air Flow 100% Standby	m³/h	3,240	
Starter Motor kW 9 Battery Capacity Ah 260 Auxiliary Voltage V 24 Starter Current – Maximum Power Amp 1750 – Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	Cooling Air Flow 100% Standby	m³/h	·	
Starter Motor kW 9 Battery Capacity Ah 260 Auxiliary Voltage V 24 Starter Current – Maximum Power Amp 1750 – Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980				
Battery Capacity Ah 260 Auxiliary Voltage V 24 Starter Current – Maximum Power Amp 1750 — Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection Minimum Fuel Pressure at Connection Deen Skid Fuel Tank Capacity I 980	STARTING SYSTEM			
Auxiliary Voltage Starter Current – Maximum Power Amp 1750 – Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection Diesel Specification Minimum Fuel Pressure at Connection Open Skid Fuel Tank Capacity I 980	Starter Motor	kW	9	
Starter Current – Maximum Power Amp 1750 – Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	Battery Capacity	Ah	· ·	
- Firing Speed Amp 800 FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	Auxiliary Voltage	V		
FUEL SYSTEM Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	Starter Current – Maximum Power	Amp		
Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	– Firing Speed	Amp	800	
Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980				
Diesel Specification Maximum Fuel Pressure at Connection bar +0.5 Minimum Fuel Pressure at Connection bar -0.3 Open Skid Fuel Tank Capacity I 980	FUEL SYSTEM			
Maximum Fuel Pressure at Connectionbar+0.5Minimum Fuel Pressure at Connectionbar-0.3Open Skid Fuel Tank CapacityI980				
Open Skid Fuel Tank Capacity I 980		bar	+0.5	
	Minimum Fuel Pressure at Connection	bar		
· · · · · · · · · · · · · · · · · · ·	Open Skid Fuel Tank Capacity	I	980	
	Container Fuel Tank Capacity	1	999	

WEIGHT AND DIMENSIONS - OPEN				
Length	mm	4208		
Width	mm	1836		
Height	mm	2389		
Shipping Volume (Sea Ready)	m³	18.46		
Wet Weight (Standard Build)	Kg	5,798		
Dry Weight (Standard Build)	Kg	5,600		



JCB G860X

WEIGHT AND DIMENSIONS - 20 ISO CONTAINER				
Length	mm	6,058		
Width	mm	2,438		
Height	mm	2,591		
Shipping Volume (Sea Ready)	m³	38.27		
Wet Weight (Standard Build)	Kg	9,598		
Dry Weight (Standard Build)	Kg	9,400		
Sound Level @ 7M	db(A)	84		



JCB G860QX

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

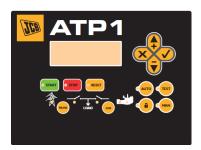
The JCB CP2 control system is digital and has the capability to control, monitor and protect the generator the same as the JCB CP1 panel but additionally incorporates the functionality of the control module of the JCB ATP1.

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	СРІ	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	х	•	•
Phase Amperage	х	•	•
Frequency	x	•	•
kVA	X	Х	•
Kw	X	x	•
kVAr	X	X	•
Power Factor	X	X	•
ENGINE	^	^	
Coolant Temperature	•	•	х
Oil Pressure	•	•	X
Fuel Level Percentage	•	•	X
Battery Voltage	•	•	×
Engine RPM	•	•	X
Battery Charge Alternator Voltage	•	•	×
ENGINE ALARMS			^
High Water temperature	•	•	х
High Coolant Temperature	•	•	×
Low Oil Pressure	•	•	
Low Coolant Level	•	•	X
Unexpected Shutdown	•	•	X
Failure to Stop	•	•	X
Battery Voltage Failure	•	•	X
, ,	•	•	X
Battery Charge Alternator Failure Over Speed	•	•	X
	•	•	X
Under Speed Failure to Start		•	X
Low Fuel level	•	•	X
	•	•	X •
Emergency Stop	•	•	•
ALTERNATOR ALARMS			
	_	_	
High Frequency	•	•	•
Low Frequency	•	•	•
Low Frequency High Voltage			
Low Frequency High Voltage Low Voltage	•	•	•
Low Frequency High Voltage Low Voltage Over Amperage	•	•	•
Low Frequency High Voltage Low Voltage Over Amperage Short Circuit	•	•	• • • X
Low Frequency High Voltage Low Voltage Over Amperage Short Circuit Symmetry Between Phases	•	•	• • • • • • • • • • • • • • • • •
Low Frequency High Voltage Low Voltage Over Amperage Short Circuit Symmetry Between Phases Incorrect Phasing	•	•	• • • X
Low Frequency High Voltage Low Voltage Over Amperage Short Circuit Symmetry Between Phases Incorrect Phasing Inverse Power	•	•	• • • • • • • • • • • • • • • • • • •
Low Frequency High Voltage Low Voltage Over Amperage Short Circuit Symmetry Between Phases Incorrect Phasing	•	•	• • • • • • • • • • • • • • • • •

• 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	\triangle	Δ
Remote Monitoring (CANModem – Fixed)	Δ	\triangle	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	•	•	х
Generator Start in Test Mode	•	•	х
Programmable Outputs	•	•	х
Multi Lingual	•	•	•
Programmable Timer	•	•	х
Synchronisation	•	•	х

[•] 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	•	х
Cooling Pack	•	х
Tropicalised Radiator	×	•
Heavy Duty Air Filter	•	х
MTU ADEC Governor	•	х
High Water Temperature Sender	•	х
Low Oil Pressure Sender	•	x
Oil Temperature Sender	•	х
Radiator Guards	•	x
Hot Component Guards	•	х
Manual Oil Drain Pump	•	x
Electric Oil Drain Pump	×	•
Fuel Heater	×	•
Electric Fuel Transfer Pump	×	•
Low Coolant Level Senders	•	х
Battery Charger	×	•
Water Jacket Heater	×	•
Exhaust Gas Compensator	•	х
Industrial Silencer – Open Set	•	x
Residential Silencer – Open Set	×	•
Residential Silencer – Container	•	х
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 CP1 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	•