



JCC 2250

231 / 400 V – 50 Hz





GENERATOR GENERAL INFORMATION

GENERATOR	FREQUENCY	VOLTAGE	POWER FACTOR	SPEED	DIESEL EN	IGINE		ALTERN	ATOR		TYPE OF	GENER	ATOR OU	ІТРИТ
Model	Hz	V	Cos Q	Rpm	Brand	Model	Series	Brand	Model	Series	Operation	kVA	kW	А
								Ë			Standby	2.250,0	1.800,0	3.251,4
JCC 2250	50	231/400	0.8	1500	Cummins	QSK60G4	QSK	BENER	JCB	450M	Prime	2.045,5	1.636,4	2.955,9
								ACX.			Continuous	1.431,8	1.145,5	2.069,1

 Diesel Engines with Advanced Technology and Quality 	 Tropical 50 °C Radiator, First Class Product Support
 Alternators with Advanced Technology and Quality 	 Fuel Filter with Water and Particle Separator
 Low Exhaust Emission 	 Low Fuel Consumption, Low Oil Consumption
 Control Panel Suitable for Flexible Application 	 Global Technical Service and Maintenance Support
 Patented Compact Designed and Sound proof Canopy 	 Wide Range of Affordable Spare Parts
 Low Operating Cost, Suitable for Heavy-Duty 	 High Quality and Reliable Technology
 Durability, Low Noise Level 	 Half Century Experience in Generator Manufacturing

STAND BY POWER RATING - (ESP):

ESP is applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. Under no condition is an engine allowed to operate in parallel with the public utility at the Stand by Power rating. This rating should be applied where reliable utility power is available. A Stand By rated engine should be sized for a maximum of an 70% average load factor and 200 hours of operation per year. This includes less than 25 hours per year at the Stand by Power rating. Stand By ratings should never be applied except in true emergency power outages. Negotiated power outages contracted with a utility company are not considered an emergency.

PRIME POWER RATING - (PRP):

Applicable for supplying electric power in lieu of commercially purchased power. Prime Power applications must be in the form of one of the following two categories:

UNLIMITED TIME RUNNING PRIME POWER (ULTP):

PRP (Prime Power) is available for an unlimited number of hours per year in a variable load application. Variable load should not exceed a 70% average of the Prime Power rating during any operating period of 250 hours. The total operating time at 100% Prime Power shall not exceed 500 hours per year. A 10% overload capability is available for a period of 1 hour within a 12-hour period of operation. Total operating time at the 10% overload power shall not exceed 25 hours per year.

LIMITED TIME RUNNING PRIME POWER (LTP):

LTP (Limited Time Prime Power) is available for a limited number of hours in a no variable load application. It is intended for use in situations where power outages are contracted, such as in utility power curtailment. Engines may be operated in parallel to the public utility up to 750 hours per year at power levels never to exceed the Prime Power rating. The customer should be aware, however, that the life of any engine will be reduced by this constant high load operation. Any operation

CONTINUOUS POWER RATING (COP):

COP is the power that the engine can continue to use under the prescribed speed and the specified environment condition in the normal maintenance period stipulated in the manufacturing plant. And Continuous Power is applicable for supplying utility power at a constant 100% load for an unlimited number of hours per year. No overload capability is available for this rating.



JCC 2250 231 / 400 V – 50 Hz



PAY ATTENTION TO THE POINTS BELOW IN PICKING AND USING THE GENERATOR

* Generators can work on Continuous Power at 70% of Prime power value if only all maintenances are done on time with original spare parts and high-quality oils that manufacturer advice.

* Generators should not operate below 50% of Prime Power value. In such a case, the engine will burn excessive oil and eventually have irreparable damage.

* If your need is 1000 kVA or above, you should prefer Synchronic Systems with 2-3 generators with failure back up and simultaneous aging.

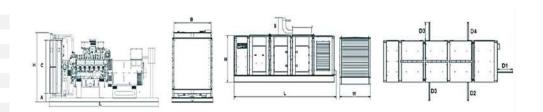
 $\ensuremath{^*}$ These points will provide advantage for you with purchasing and operating the generator.

GENERATOR DIMENSIONS AND TECHNICAL DRAWINGS



VALUES		OPEN TYPE GENERATOR	CANOPY TYPE GENERATOR
WIDTH	mm	2600	2800
LENGTH	mm	5700	9000
HEIGHT	mm	2643	2900
WEIGHT (NET)	Kg	13570	18590
FUEL TANK CAPACITY	L	3500	3500

SYMBOL	OPEN	CANOPY
L	5700	9000
W	2600	2800
н	2643	2000
S		900
Α	300	
В	2559	
С	2086	
D1		1044
D2		1044
D3		1044
D4		1044
D5		1044





JCC 2250 231 / 400 V - 50 Hz



DIESEL ENGINE MAIN TECHNICAL PARAMETERS

GENERAL		
Number of Cylinders		16
Configuration		60°Vee
Aspiration		Turbo Charged & Aftercooled
Combustion System		Direct injection
Compression Ratio		14.5:1
Bore	mm	159
Stroke	mm	190
Displacement	L	60,2
Governing Type	-	Electronic
Governing Class		G3
Rotation		Counterclockwise
Firing Order		1L,1R, 3L,3R,7L,7R,5L,5R, 8L,8R,6L,6R,2L,2R,4L,4R
Emission		Non-Regulated
FILTERS		Non-Regulated
Air Filter		Dry Type, Replaceable
Fuel Filter		With Water Separator
Oil Filter		Element Type, Particulate Trap
LUBRICATION SYSTEM		
Total System	L	280
Minimum Oil Level	L	240
Nominal Motor Operating Temperature	°C	50
Lubricating Oil Pressure (Rated Speed)	bar	5,3
Relief Valve Opens	kPa	200-250
Oil / Fuel Consumption Ratio	%	<0,1
Normal Oil Temperature	°C	120
FUEL CONSUMPTION		
Standby - Load 110%	L/h	431,99
Prime - Load 100%	L/h	390,69
Prime - Load 75%	L/h	289,98
Prime - Load %50	L/h	198,38
COOLING SYSTEM		
Radiator Type	50ºC	Tropical
Total Coolant Capacity	L	500
Max. Perm. Coolant Outlet Temperature	°C	110
Max. Perm. Flow Resist. (Cool. System And Piping)	bar	0,5
Max. Temperature of Coolant Warning	°C	95
Max. Temperature of Coolant Shutdown	°C	00
Thermostat Operation Temperature - Initial Open	•	98
Thermostat Operation Temperature - Full Open	°C	98 76
Delivery of Coolant Pump		
Min. Pressure Before Coolant Pump	°C	76
Radiator Face Area	≌C ≌C m ³/ h bar	76 85 24,60 0,5
	≌C ≌C m ³/ h	76 85 24,60 0,5 5,82
Rows	°C °C m ³ /h bar m ² Row	76 85 24,60 0,5 5,82 9
	≌C ≌C m ³ / h bar m ²	76 85 24,60 0,5 5,82 9 10
Rows Matrix Density Material	°C °C m ³ /h bar m ² Row	76 85 24,60 0,5 5,82 9
Rows Matrix Density	°C °C m ³ /h bar m ² Row	76 85 24,60 0,5 5,82 9 10
Rows Matrix Density Material	<pre> ^QC ^QC m³/h bar m² Row Per / Inch </pre>	76 85 24,60 0,5 5,82 9 10 Aluminum
Rows Matrix Density Material Width of Matrix Height of Matrix Pressure Cap Setting	<pre> PC PC PC m³/h bar m² Row Per/Inch mm PC PC</pre>	76 85 24,60 0,5 5,82 9 10 Aluminum 2480 2800 90
Rows Matrix Density Material Width of Matrix Height of Matrix	<pre> PC PC PC m³/h bar m² Row Per / Inch mm mm mm mm </pre>	76 85 24,60 0,5 5,82 9 10 Aluminum 2480 2800





DIESEL ENGINE MAIN TECHNICAL PARAMETERS

ELECTRICAL SYSTEM			
Voltage	V	24	
Starter	kW	2X9	
Alternator Output Ampere	А	35	
Alternator Output Voltage	V	28	
Batteries Capacity	Ah	4x143	
FAN			
Diameter	mm	1900	
Drive Ratio		0.85:1	
Number of Blades		12	
Material		Aluminum	
Туре		Blowing	

DIESEL ENGINE MATCHING PARAMETERS - 50 HZ

50 HZ @ 1500 R/MIN		STAND BY	PRIME
Gross Engine Power	kW	1915,0	1740,9
Net Engine Power	kW	1861,0	1691,8
Fan Power Consumption (Belt Pulley Driven)	kW	44,0	44,0
Other Power Loss	kW	10,0	10,0
Mean Effective Pressure	MPa	2544,00	2544,00
Intake Air Flow	m ³ / min	144,00	144,00
Exhaust Temperature Limit	°C	450	450
Exhaust Flow	m ³/ min	336,00	336,00
Boost Pressure Ratio		175,00	175,00
Mean Piston Speed	m / s	9,5	9,5
Cooling Fan Air Flow	m ³/ min	2374,0	2374,0
Typical Generator Output Power	kVA	2256	2051
Alternator Efficiency	%	97,0	97,0
HEAT REJECTION		STAND BY	PRIME
Energy in Fuel (Heat of Combustion)	kW	4280,0	4280,0
Gross Heat to Power	kW	1915,0	1915,0
Energy to Coolant and Lubricating Oil	kW	780,0	780,0
Energy to Exhaust	kW	1410,0	1410,0
Heat to Radiation	kW	175,00	175,00



JCC 2250

231 / 400 V – 50 Hz



ALTERNATOR SPECIFICATIONS



ALTERNATOR TECHNICA	L PARAMETERS				
Insulation Class		н	Field Control System		Self-Excited
Winding Pitch		2/3 - (N° 6)	A.V.R. Model	Standard	MX321+PMG
Wires		6	Voltage Regulation	%	± 0.5
Protection		IP 23	Sustained Short-Circuit Current	10 sec	300% (3 IN)
Altitude	m	1000	Total Harmonic (*) TGH / THC	%	< 4
Overspeed	rpm	2250	Wave Form: NEMA = TIF - (*)		< 50
Air Flow	m³/sec.	2,69	Wave Form: I.E.C. = THF - (*)	%	< 1.5
Bearing Drive	N/A	-	Bearing Non-Drive	Bearing	6319-2RZ
Rotor Winding	100%	Copper	Stator Winding	100%	Copper

50 HZ / 231-400V COSQ 0,8 / 1500 RPM

STANDARD USING ALTERNATOR				OPTIONAL USING ALTERNATOR					
BRAND/MODEL	JCBENERGY	JCB 450M		LEROY-SO	OMER	LSA 52.3S6	STAMFORD	P7F	
DUTY				Continuous			5	Stand By	
AMBIENT	C°			40°C				27°C	
CLASS / TEMP. RISE	C°			Н/ 125° К			ł	Н/ 163° К	
SERIES STAR	V	380/220	400/231	415/240	1 Phase	380/220	400/231	415/240	1 Phase
PARALLEL STAR	V	190/110	200/115	208/120	220	190/110	200/115	208/120	220
SERIES DELTA	V	220	230	240	230	220	230	240	230
OUTPUT POWER	kVA	2045,0	2045,0	2086,0	-	2250,0	2250,0	2295,0	-
OUTPUT POWER	kW	1636,0	1636,0	1668,8	-	1800,0	1800,0	1836,0	-



JCC 2250

231 / 400 V – 50 Hz



CONTROL MODULE ALERTS

Emergency Stop Malfunction High Generator Frequency Low Generator frequency, Low Load Over Current, Unbalanced Current Low Generator Voltage High generator Frequency Phase sequence error Overload, Heat Sensor Broken Low Water Level (Optional) Low Oil Pressure, Reverse Power Low Water Temperature

Start Error, Stop Error Magnetic Pickup Error Charge Alternator Error Unbalanced Load Maintenance Time Alarm Low Speed, High Speed Broken Oil Sensor Cable High Oil Temperature (Optional) Low Fuel Level (Optional), High Battery Voltage Low Battery Voltage, High Water Temperature Electronic Can bus Errors (ECU)



- Powder Painted Steel Panel with Lockable Door
- ATS (Automatic Transfer Panel)-Optional
- o Control Module
- Battery Charger
- Emergency Stop Button
- o Terminal Blockso Load Output Terminal
- System Protection MSBs
- Circuit Breaker-Optional
- LCD Screen
- Control Relays
- o Backlit, 128x64 Pixel

CONTROL MODULE TECHNICAL PARAMETERS

CONTROL PANEL SPECIFICATIONS

Brand	JCBENERGY	Brand	Trans-MIDIAMF.232.GP
Dimensions	120mmx94mm.	Protection Class	IP65 From the Front
Weight	260 gr.	Environmental Conditions	2000 meters above sea level
Ambient Humidity	Max. %90.	Ambient Temperature	-20°C to +70°C
DC Battery Supply Voltage	8 - 32 V	Battery Voltage Measurement	8 – 32 V
Network Frequency	5 - 99,9 Hz	Mains Voltage Measurement	3 - 300 V phase -Neutral, 5 - 99,9 Hz
Generator Voltage Measurement	3 - 300 V	Generator Frequency	5 - 99,9 Hz
Current Transformer Secondary	5A	Working Period	Continuous
Charge Alternator Voltage Measurement	8 - 32 V	Charge Alternator Excitation	210mA &12V, 105mA &24V Nominal 2.5W
Communication Interface	RS-232	Analog Sender Measurement	0 - 1300ohm
Generator Contactor Relay Output	5A & 250V	Mains Contactor Relay Output	5A & 250V
Solenoid Transistor Outputs	1A with DC Supply	Start Transistor Outputs	1A with DC Supply
Configurable-3 Transistor Outputs	1A with DC Supply	Configurable-4 Transistor Outputs	1A with DC Supply



JCC 2250 231 / 400 V - 50 Hz



CONTROL MODULE FUNCTION

Mains Voltage Level Control	Generator Voltage Level Control	3 Phase Generator Protections	3 Phase AMF Function	Alarm Horn
Network Frequency Level Control	Generator Frequency level Control	- High / Low Voltage	- High / Low Frequency	Heater Tube Thermostat Control
Engine Operating Option Control	Generator Current Level Control	- High / Low Frequency	- High / Low Voltage	Modbus and SNMP
Engine Stop Option Control	Generator Powder Level Control	 Current / Voltage Asymmetry 	- High / Low Water Temperature	Working Hour
Engine Speed (RPM) Level Control	Generator work Schedule and Timing Control	- Overcurrent / Overload	- High / Low Load	Ground Leakage
Battery Voltage Options Times	Oil Pressure Controllers Control	Overheat Control	Mains., Generator ATS Control	Analog Modem
Check Engine Maintenance Times	Configurable Analog Inputs and Outputs	1 Phase or 3 Phase, Phase Selection	Network, Voltage, Frequency Display	Ethernet, USB, RS232, RS485
Communication Interfaces GPRS, GSM	Keeping Error Records of Past Events	Parameter Setting via Control Module	Parameter Setting via Computer	Selectable Protection Alarm / Shutdown
Engine Speed, Voltage, Earning	Configurable Programmable Digital Inputs and Outputs	Water Temperature Current and Frequency	Hours of Operation Phase sequence	Battery Voltage Oil Pressure

SOUND PROOF CANOPY AND BASE FRAME (CHASIS) SPECIFICATIONS



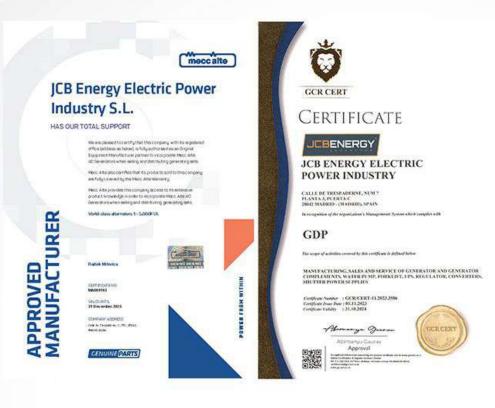
- Special, Registered JCB Energy Design and Colour
- A1 Quality DKP / HRU / Galvanized Steel
- Sensitive Twist on Automatic Press Brake
- Delicate Cut on Automatic Punch and Laser Bench
- Sensitive Welding on Robotic Welding Bench
- Chemical Cleaning Nano Technology Before Painting
- Robotic Painting with Electrostatic Powder Paint
- Drying and stabilizing on 200 °C Ovens
- 5 1500 Hour Salt Test
- Glass wool Isolation, A1 Class Material -50/+500 °C
- Special Covering Over Glass Wool
- Best Sound Level (in Dba)
- Temperature Tests
- Rustproof Accessories

- Cable Exit Connectors and Glands
- Emergency Stop Button
- Fuel Level Gauge
- Fuel Drain Cap
- Fuel Inlet and Return Records
- I permeability Test for Fuel Tank
- Vacuumed Rubber Mounted
- High Quality weatherstrips
- High Quality Shock Absorbers
- Fuel Filling Cap (with ventilation)
- Lifting and Carrying Equipment
- Internal Exhaust Mufflers (Silencers)
- External Exhaust Mufflers (Silencers)
- Radiator water Filling Cap
- Daily Fuel Tank, External Fuel Tank

Our Quality Certificates

Certificate of I	Registration 🔊	Certificate of Re	gistration 👝	
This is to certify that the Quality	Management System of	This is to certify that the Environmental Management System of		
JEBENE	RGY	JEBENERGY		
JCB ENERGY ELECTRIC	POWER INDUSTRY	JCB ENERGY ELECTRIC PO	WER INDUSTRY	
CALLE DE TRESPADERNE, NUW 7 PLANTA 3, PUE	RTA C 28042 MADRID - (MADRID), SPAIN	CALLE DE TRESPADERNE, NUM 7 PLANTA 3, PUERTA	C 28042 MADRID - (MADRID), SPAIN	
is in accordance with the requireme	nts of the following standard	is in accordance with the requirements	of the following standard	
ISO 9001:2015 (Quality Management System)		ISO 14001:2015 (Environmental Management System)		
SCOPE		SCOPE		
MANUFACTURING, SALES AND SERVICE OF GEN WATER PUMP, FORKLIFT, UPS, REGULATOR, CO		MANUFACTURING, SALES AND SERVICE OF GENERAT WATER PUMP, FORKLIFT, UPS, REGULATOR, CONVE		
(IAF Code:	u.m	(AF Code: 18,19)		
ton Number 20022013422 vority constitucato, visit at : oversect.com ps.ltatascredition.org ps.ltatascredition.org	Initial Registration Data : 15-001-2020 11 Survivillance Data : 15-366-2020 21 Survaillance Data : 25-366-2020 Certificate Euroy Data : 26-00-2020	Centrol Numor: 399024031 To vecify continuate, visit, at : very an Section of https://www.identicereditation.org	intel Registration Date : 25-04-0428 17. Surveillance Date : 25-54-04284 27. Surveillance Date : 25-54-04284 Confectio Euply Date : 24-04-04284	
as www.uscentratio.org	Issued by ARS Assessment Private Limited		Issued by ARS Assessment Private United	







JEBENERGY

JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRESPADERNE, NUM? PLANTA 3, PUERTA C 28642 MADRED - (MADRED, NPAEN

nition of the organization's Management System which complex with

1SO 22716:2013:GMP GOOD MANUFACTURING PRACTICES The scope of extinuous cannot by this confidence is defined below

MANUPACTURING, SALLS AND SERVICE OF GENERATOR AND GENERATOR COMPLEMENTS, WATER FUMP, FORKLIFT, UPS, REGULATOR, CONVERTERS, SIGTTER POWER SUPPLIES

Complexer Number 3 GCRCERT-11.2023.3585 Complexer Journ Date (#1.11.2023 Complexer Failury 1.31.318,2024

Alemany games Abimaryu Casaw Approval

Ki gabad Matania anang Ki Kabal Kelang Ki Igaba anang Ali Selaharan Yang Ki Kabalan Ki Kelang Ki Ki Kabalan Ki Kelang Ki Ki Kabalan Ki Kabalan Kabalan GUR CERT



Certificate

HEALTHY & SAFE WORKPLACE CERTIFICATE

JCB ENERGY ELECTRIC POWER INDUSTRY

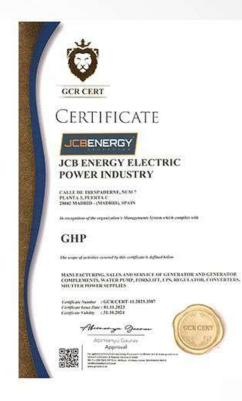
CALLE DE TRESPADERNE, NUM 7 PLANTA L'PUERTA C 20042 MADRID+ (MADRID), SPAIN that been writted to obtain a Healthy and Safe Workplace Certificate by fulfilling the equiversets for COVO-19 resources, when the physical conditions of the business ch is the scope of the Healthy and Safe Workplace Certificate program.

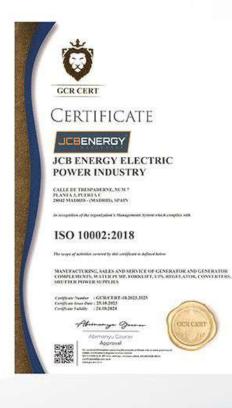
FACTORIES - PRODUCTION LOCATIONS: ELECTRICAL AND ELECTRONICS INDUSTRY

Conglow Namber 1 GCRCERT-11.2023.3656 Conglowe New Date 107.11.2023 Conglowe New Date 105.11.2023



Alemanya Game Azimanyu Caucav Approval







124

S.S.



www.jcbenergy.es