



# JCB ENERGY ELECTRIC POWER INDUSTRY





MADRID / SPAIN



[www.jcbenergy.es](http://www.jcbenergy.es)



### GENERATOR GENERAL INFORMATION

GENERATOR	FREQUENCY	VOLTAGE	POWER FACTOR	SPEED	DIESEL ENGINE		ALTERNATOR		TYPE OF	GENERATOR OUTPUT				
Model	Hz	V	Cos Q	Rpm	Brand	Model	Series	Brand	Model	Series	Operation	kVA	kW	A
JCD 23	50	231/400	0.8	1500		BF3M G1	BF		JCB	160LX	Standby	23,0	18,4	33,2
											Prime	21,0	16,8	30,3
											Continuous	17,6	14,1	25,4
JCD 30	60	277/480	0.8	1800		BF3M G1	BF		JCB	180M	Standby	30,0	24,0	43,4
											Prime	27,3	21,8	39,4
											Continuous	23,1	18,5	33,4

- Diesel Engines with Advanced Technology and Quality
- Alternators with Advanced Technology and Quality
- Low Exhaust Emission
- Control Panel Suitable for Flexible Application
- Patented Compact Designed and Sound proof Canopy
- Low Operating Cost, Suitable for Heavy-Duty
- Durability , Low Noise Level

- Tropical 50 °C Radiator, First Class Product Support
- Fuel Filter with Water and Particle Separator
- Low Fuel Consumption, Low Oil Consumption
- Global Technical Service and Maintenance Support
- Wide Range of Affordable Spare Parts
- High Quality and Reliable Technology
- 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.

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

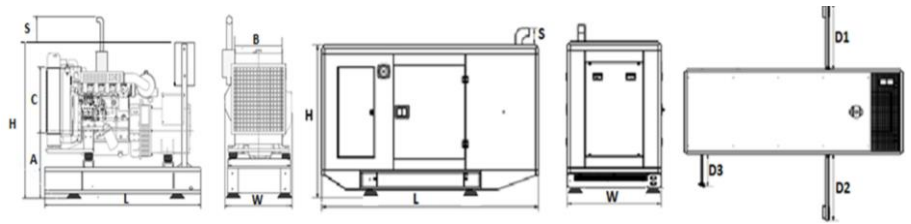
- \* Generators can work on Continuous Power at 70% of Prime power value if only all maintenances are done on time with original spare parts and high-quality oils that manufacturer advice.
- \* Generators should not operate below 50% of Prime Power value. In such a case, the engine will burn excessive 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.
- \* 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	597	942
LENGTH	mm	1400	1916
HEIGHT	mm	1309	1444
WEIGHT (NET)	Kg	553	690
FUEL TANK CAPACITY	L	58	40

SYMBOL	OPEN	CANOPY
L	1400	1916
W	619	942
H	1004	1272
S	325	172
A	555	
B	500	
C	480	
D1		630
D2		630
D3		360
D4		
D5		



## FUEL CONSUMPTION

PERCENT OF PRIME POWER	1500 rpm	1800 rpm
	l/hr	l/hr
110 %	5,83	7,42
100 %	5,30	6,75
75 %	3,98	5,06
50 %	2,72	3,46

## DIESEL ENGINE MAIN TECHNICAL PARAMETERS

50 Hz – 1500 min <sup>-1</sup>			60 Hz – 1800 min <sup>-1</sup>		
Type		BFM3	Type		BFM3
Speed	min <sup>-1</sup>	1500	Speed	min <sup>-1</sup>	1800
Net Frequency	Hz	50	Net Frequency	Hz	60
Power Standard		LTP	Power Standard		LTP
Power Level		G1	Power Level		G1
<b>GENERAL</b>			<b>GENERAL</b>		
Aspiration		Natural	Aspiration		Natural
Governing System		Electronic	Governing System		Electronic
Governor Brand		GAC	Governor Brand		GAC
No of Cylinders		4	No of Cylinders		4
Configuration		in-line	Configuration		in-line
Injection System		In-line pump	Injection System		In-line pump
Displacement	L	3,168	Displacement	L	3,168
Bore	mm	98	Bore	mm	98
Stroke	mm	105	Stroke	mm	105
Compression Ratio		18,5:1	Compression Ratio		18,5:1
Mean Effective Pressure	Bar	5,6	Mean Effective Pressure	Bar	5,6
Piston Speed	m/s	5,25	Piston Speed	m/s	6,30
Rotation (looking at flywheel)		ccw	Rotation (looking at flywheel)		ccw
No of Teeth on Flywheel Ring Gear		103	No of Teeth on Flywheel Ring Gear		103
<b>GOVERNOR PERFORMANCE</b>			<b>GOVERNOR PERFORMANCE</b>		
Speed droop (static) mech. gov.	%	4-6	Speed droop (static) mech. gov.	%	4-6
Speed droop (static) electr. gov.	%	0	Speed droop (static) electr. gov.	%	0
Governing standards		G3	Governing standards		G3
<b>MOMENT OF INERTIA</b>			<b>MOMENT OF INERTIA</b>		
Engine without flywheel	kg m <sup>2</sup>	5,40	Engine without flywheel	kg m <sup>2</sup>	5,40
Flywheel (standard genset spec.)	kg m <sup>2</sup>	0,2	Flywheel (standard genset spec.)	kg m <sup>2</sup>	0,2
Max. step load acceptance, 1st step	%	-	Max. step load acceptance, 1st step	%	-
Sound power at full load, incl. cooling system	dB(A)	102	Sound power at full load, incl. cooling system	dB(A)	104
Sound press. (1m average, full load), incl. cool. syst.	dB(A)	90	Sound press. (1m average, full load), incl. cool. syst.	dB(A)	92
<b>ENGINE WEIGHT</b>			<b>ENGINE WEIGHT</b>		
Engine Dry, w/o Cooling System	kg	245	Engine Dry, w/o Cooling System	Kg	245
<b>LUBRICATION SYSTEM</b>			<b>YAĞLAMA SİSTEMİ</b>		
Oil specification		15W40/CI-4/SL	Oil specification		15W40/CI-4/SL
Oil consumption (as % of fuel consumption)	%	0,5	Oil consumption (as % of fuel consumption)	%	0,5
Oil capacity (sump)	l	7,5	Oil capacity (sump)	l	7,5
Min. oil pressure (warning)	Bar	1,5	Min. oil pressure (warning)	Bar	1,5
Min. oil pressure (shut down)	Bar	1,0	Min. oil pressure (shut down)	Bar	1,0
Max. permissible oil temperature (oil pan)	°C	120	Max. permissible oil temperature (oil pan)	°C	120
<b>OUTPUT</b>			<b>OUTPUT</b>		
Gross Output(LTP or StandBy Power)	Kw	22	Gross Output(LTP or StandBy Power)	Kw	28
Fan Reduction	Kw	2	Fan Reduction	Kw	2.0
Electrical Output (Stand By)	Kva	23	Electrical Output (Stand By)	Kva	30
Gross Output(PRIP or Prime Power)	Kw	20	Gross Output(PRIP or Prime Power)	Kw	25
Gross Output(Continous Power)	kw	19	Gross Output(Continous Power)	kw	23

## DIESEL ENGINE MAIN TECHNICAL PARAMETERS

50 Hz – 1500 min <sup>-1</sup>			60 Hz – 1800 min <sup>-1</sup>		
<b>COOLING SYSTEM, GENERAL ENGINE COOLING DATA</b>			<b>COOLING SYSTEM, GENERAL ENGINE COOLING DATA</b>		
Max. perm. Coolant Outlet Temperature	°C	103	Max. perm. Coolant Outlet Temperature	°C	103
Max. perm. Flow Resistance (cool. syst. and piping)	Bar	0.5	Max. perm. Flow Resistance (cool. syst. and piping)	Bar	0.5
Max. Temperature of Coolant (warning)	°C	97	Max. Temperature of Coolant (warning)	°C	97
Max. Temperature of Coolant (shutdown)	°C	103	Max. Temperature of Coolant (shutdown)	°C	103
Temperature at Which Thermostat Starts to open	°C	78	Temperature at Which Thermostat Starts to open	°C	78
Temperature at Which Thermostat is Fully Open	°C	90	Temperature at Which Thermostat is Fully Open	°C	90
Delivery of Coolant Pump	m <sup>3</sup> /h	4,2	Delivery of Coolant Pump	m <sup>3</sup> /h	4,2
Min. Pressure Before Coolant Pump	Bar	0.15	Min. Pressure Before Coolant Pump	Bar	0.15
<b>ENGINE COOLING SYSTEM</b>			<b>ENGINE COOLING SYSTEM</b>		
Coolant Capacity (engine)	l	4.8	Coolant Capacity (engine)	l	4.8
Coolant Capacity (incl. cooling unit)	l	-	Coolant Capacity (incl. cooling unit)	l	-
Fan Power Consumption	kW	2	Fan Power Consumption	kW	3
Air to Boil (max. permissible cool. air temp. at fan)	°C	50	Air to Boil (max. permissible cool. air temp. at fan)	°C	50
Air Pressure Loss, external	mbar	1.5	Air Pressure Loss, external	mbar	2.0
Cooling air Flow	m <sup>3</sup> /h	3960	Cooling air Flow	m <sup>3</sup> /h	4720
<b>HEAT BALANCE</b>			<b>HEAT BALANCE</b>		
Heat Dissipation (engine radiator)	kW	25	Heat Dissipation (engine radiator)	kW	32
Heat Dissipation (CAC)	kW	-	Heat Dissipation (CAC)	kW	-
<b>INLET / EXHAUST DATA</b>			<b>INLET / EXHAUST DATA</b>		
Max. intake Depression (Switch setting)	mbar	30	Max. intake Depression (Switch setting)	mbar	30
Combustion Air Volume	m <sup>3</sup> /h	132	Combustion Air Volume	m <sup>3</sup> /h	180
Max. Exhaust Back Pressure	mbar	100	Max. Exhaust Back Pressure	mbar	100
Max. Exhaust Gas Temperature	°C	530	Max. Exhaust Gas Temperature	°C	530
Exhaust Gas Flow (at above temp)	m <sup>3</sup> /h	250	Exhaust Gas Flow (at above temp)	m <sup>3</sup> /h	360
<b>ELECTRICAL SYSTEM</b>			<b>ELECTRICAL SYSTEM</b>		
Voltage	V	12	Voltage	V	12
Starter	KW	3	Starter	KW	3
Alternator Output	A	55	Alternator Output	A	55
Batteries (minimum capacity, cold start limit -5°C)	Ah	1*55	Batteries (minimum capacity, cold start limit -5°C)	Ah	1*55

## ALTERNATOR TECHNICAL PARAMETERS



### ALTERNATOR TECHNICAL PARAMETERS

<b>Insulation Class</b>	H	<b>Field Control System</b>	Self-Excited
<b>Winding Pitch</b>	2/3 - (N° 6)	<b>A.V.R. Model</b>	Standard SX460
<b>Wires</b>	12	<b>Voltage Regulation</b>	% ± 1
<b>Protection</b>	IP 23	<b>Sustained Short-Circuit Current</b>	10 sec 300% (3 IN)
<b>Altitude</b> m	1000	<b>Total Harmonic (*) TGH / THC</b>	% < 5
<b>Overspeed</b> rpm	2250	<b>Wave Form: NEMA = TIF - (*)</b>	< 50
<b>Air Flow</b> m <sup>3</sup> /sec.	0.095	<b>Wave Form: I.E.C. = THF - (*)</b>	% < 2
<b>Bearing Drive</b>	N/A	<b>Bearing Non-Drive</b>	Bearing 6306-2RZ
<b>Rotor Winding</b> 100%	Copper	<b>Stator Winding</b> 100%	Copper

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

#### STANDARD USING ALTERNATOR

#### OPTIONAL USING ALTERNATOR

BRAND/MODEL	JCB ENERGY	JCB 160LX	LERROY-SOMER	TAL040F	STAMFORD	SOL2-G1/PI144D			
<b>DUTY</b>			Continuous			Stand By			
<b>AMBIENT</b>	C°		40°C			27°C			
<b>CLASS / TEMP. RISE</b>	C°		H/ 125° K			H/ 163° K			
<b>SERIES STAR</b>	V	<b>380/220</b>	400/231	<b>415/240</b>	1 Phase	<b>380/220</b>	400/231	<b>415/240</b>	1 Phase
<b>PARALLEL STAR</b>	V	<b>190/110</b>	200/115	<b>208/120</b>	220	<b>190/110</b>	200/115	<b>208/120</b>	220
<b>SERIES DELTA</b>	V	<b>220</b>	230	<b>240</b>	230	<b>220</b>	230	<b>240</b>	230
<b>OUTPUT POWER</b>	kVA	<b>21,0</b>	21,0	<b>22,0</b>	14,0	<b>23,0</b>	23,0	<b>24,0</b>	15,0
<b>OUTPUT POWER</b>	kW	<b>16,8</b>	16,8	<b>17,6</b>	11,2	<b>18,4</b>	18,4	<b>19,2</b>	12,0

### 60 HZ / 277-480V COSQ 0,8 / 1800 RPM

#### STANDARD USING ALTERNATOR

#### OPTIONAL USING ALTERNATOR

BRAND/MODEL	JCB ENERGY	JCB 180M	LERROY-SOMER	TAL042A	STAMFORD	PI144E- SOL2-M			
<b>DUTY</b>			Continuous			Stand By			
<b>AMBIENT</b>	C°		40°C			27°C			
<b>CLASS / TEMP. RISE</b>	C°		H / 125° K			H / 163° K			
<b>SERIES STAR</b>	V	<b>416/240</b>	440/254	<b>480/277</b>	1 Phase	<b>416/240</b>	440/254	<b>480/277</b>	1 Phase
<b>PARALLEL STAR</b>	V	<b>208/120</b>	220/127	<b>240/138</b>	-	<b>208/120</b>	220/127	<b>240/138</b>	-
<b>SERIES DELTA</b>	V	<b>240</b>	254	<b>277</b>	240	<b>240</b>	254	<b>277</b>	240
<b>OUTPUT POWER</b>	kVA	<b>28,0</b>	30,0	<b>30,0</b>	20,0	<b>31,0</b>	33,0	<b>33,0</b>	22,0
<b>OUTPUT POWER</b>	kW	<b>22,4</b>	24,0	<b>24,0</b>	16,0	<b>24,8</b>	26,4	<b>26,4</b>	17,6

## 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)

## CONTROL PANEL SPECIFICATIONS



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

## CONTROL MODULE TECHNICAL PARAMETERS

Brand		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

## 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
- 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 Registration** 

This is to certify that the Quality Management System of

**JCBENERGY**

JCB ENERGY ELECTRIC POWER INDUSTRY  
CALLE DE TRESPADERNE, NUM 7 PLANTA 3, PUERTA C 28042 MADRID - (MADRID), SPAIN

is in accordance with the requirements of the following standard

**ISO 9001:2015**  
(Quality Management System)

**SCOPE**



MANUFACTURING, SALES AND SERVICE OF GENERATOR AND GENERATOR COMPLEMENTS, WATER PUMP, FORKLIFT, UPS, REGULATOR, CONVERTERS, SHUTTER POWER SUPPLIES  
(IAF Code: 18,19)

Certificate Number : 251022013422

Initial Registration Date : 25-Oct-2023  
1<sup>st</sup> Surveillance Date : 25-Sep-2024  
2<sup>nd</sup> Surveillance Date : 25-Sep-2025  
Certificate Expiry Date : 24-Oct-2026

To verify certificate, visit at:  
[www.arscert.com](http://www.arscert.com)  
<https://www.iafacreditation.org>  
<https://www.iafcertsearch.org/>

Issued by ARS Assessment Private Limited  
Managing Director

IAF Address : 401, North Center Dr., STE 202, Norfolk, VA 23502, United States of America

**Certificate of Registration** 

This is to certify that the Environmental Management System of

**JCBENERGY**

JCB ENERGY ELECTRIC POWER INDUSTRY  
CALLE DE TRESPADERNE, NUM 7 PLANTA 3, PUERTA C 28042 MADRID - (MADRID), SPAIN

is in accordance with the requirements of the following standard

**ISO 14001:2015**  
(Environmental Management System)

**SCOPE**

MANUFACTURING, SALES AND SERVICE OF GENERATOR AND GENERATOR COMPLEMENTS, WATER PUMP, FORKLIFT, UPS, REGULATOR, CONVERTERS, SHUTTER POWER SUPPLIES  
(IAF Code: 18,19)

Certificate Number : 25102202423

Initial Registration Date : 25-Oct-2023  
1<sup>st</sup> Surveillance Date : 25-Sep-2024  
2<sup>nd</sup> Surveillance Date : 25-Sep-2025  
Certificate Expiry Date : 24-Oct-2026

To verify certificate, visit at:  
[www.arscert.com](http://www.arscert.com)  
<https://www.iafacreditation.org>  
<https://www.iafcertsearch.org/>

Issued by ARS Assessment Private Limited  
Managing Director

IAF Address : 401, North Center Dr., STE 202, Norfolk, VA 23502, United States of America

**CERTIFICATE OF REGISTRATION** 

This is to certify that the Management System of

**JCBENERGY**

JCB ENERGY ELECTRIC POWER INDUSTRY  
CALLE DE TRESPADERNE, NUM 7 PLANTA 3, PUERTA C 28042 MADRID - (MADRID), SPAIN

is in accordance with the requirements of the following standard

**ISO 27001:2013**  
(Information Security Management System)

**SCOPE OF CERTIFICATION**

PROTECTION OF RECORDS AND INFORMATION ASSETS IN MANUFACTURING, SALES AND SERVICE OF GENERATOR AND GENERATOR COMPLEMENTS, WATER PUMP, FORKLIFT, UPS, REGULATOR, CONVERTERS, SHUTTER POWER SUPPLIES

Certificate Number : QCAS-JCB-23-05158813

Initial Certification Date : 25 Oct 2023      Date of Expiry : 24 Oct 2026  
1st Surveillance Date : 25 Sep 2024      2nd Surveillance Date : 25 Sep 2025

Verify the Certificate: <https://gaafs.us/site/search/>

Issued by QCAS Certifications Inc.  
Managing Director

QCAS Address: 10000, Regatta Avenue, 98040 Redmond, WA, 98050  
This certificate is issued in accordance with the ISO 27001:2013 standard as a condition of the certification. The validity of the certificate is subject to the certificate holder's compliance with the requirements of the standard and the successful completion of the surveillance audits. Failure to comply with the requirements of the standard or the successful completion of the surveillance audits may result in the suspension or withdrawal of the certificate.

**Certificate of Registration** 

This is to certify that the Occupational Health and Safety Management System of

**JCBENERGY**

JCB ENERGY ELECTRIC POWER INDUSTRY  
CALLE DE TRESPADERNE, NUM 7 PLANTA 3, PUERTA C 28042 MADRID - (MADRID), SPAIN

is in accordance with the requirements of the following standard

**ISO 45001:2018**  
(Occupational Health and Safety Management System)

**SCOPE**

MANUFACTURING, SALES AND SERVICE OF GENERATOR AND GENERATOR COMPLEMENTS, WATER PUMP, FORKLIFT, UPS, REGULATOR, CONVERTERS, SHUTTER POWER SUPPLIES  
(IAF Code: 18,19)

Certificate Number : 251022013424

Initial Registration Date : 25-Oct-2023  
1<sup>st</sup> Surveillance Date : 25-Sep-2024  
2<sup>nd</sup> Surveillance Date : 25-Sep-2025  
Certificate Expiry Date : 24-Oct-2026

To verify certificate, visit at:  
[www.arscert.com](http://www.arscert.com)  
[www.iafacreditation.org](https://www.iafacreditation.org)  
<https://www.iafcertsearch.org/>

Issued by ARS Assessment Private Limited  
Managing Director

IAF Address : 401, North Center Dr., STE 202, Norfolk, VA 23502, United States of America

This certificate is issued in accordance with the ISO 45001:2018 standard as a condition of the certification. The validity of the certificate is subject to the certificate holder's compliance with the requirements of the standard and the successful completion of the surveillance audits. Failure to comply with the requirements of the standard or the successful completion of the surveillance audits may result in the suspension or withdrawal of the certificate.

**CERTIFICATE OF REGISTRATION** 

This is to certify that the Management System of

**JCBENERGY**

JCB ENERGY ELECTRIC POWER INDUSTRY  
CALLE DE TRESPADERNE, NUM 7 PLANTA 3, PUERTA C 28042 MADRID - (MADRID), SPAIN

is in accordance with the requirements of the following standard

**ISO 50001:2018**  
(Energy Management System)

**SCOPE OF CERTIFICATION**

MANUFACTURING, SALES AND SERVICE OF GENERATOR AND GENERATOR COMPLEMENTS, WATER PUMP, FORKLIFT, UPS, REGULATOR, CONVERTERS, SHUTTER POWER SUPPLIES

Certificate Number : QCAS-JCB-23-05158814

Initial Certification Date : 25 Oct 2023      Date of Expiry : 24 Oct 2026  
1st Surveillance Date : 25 Sep 2024      2nd Surveillance Date : 25 Sep 2025

Verify the Certificate: <https://gaafs.us/site/search/>

Issued by QCAS Certifications Inc.  
Managing Director

QCAS Address: 10000, Regatta Avenue, 98040 Redmond, WA, 98050  
This certificate is issued in accordance with the ISO 50001:2018 standard as a condition of the certification. The validity of the certificate is subject to the certificate holder's compliance with the requirements of the standard and the successful completion of the surveillance audits. Failure to comply with the requirements of the standard or the successful completion of the surveillance audits may result in the suspension or withdrawal of the certificate.



# JCB Energy Electric Power Industry S.L.

HAS OUR TOTAL SUPPORT

We are pleased to certify that this company, with its registered office (address as below) is fully authorized as an Original Equipment Manufacturer partner to incorporate Mecc Alte AC Generators when selling and distributing generating sets.

Mecc Alte also certifies that its product sold to this company are fully covered by the Mecc Alte Warranty.

Mecc Alte provides this company access to its extensive product knowledge in order to incorporate Mecc Alte AC Generators when selling and distributing generating sets.

World class alternators 1-5000kVA.

APPROVED MANUFACTURER

Radek Mivovca



COIF PIGOT ENG. MAQUINIS

VALDURTEL 29 December 2023

COMPANY ADDRESS  
C/Av. de Traspaderne, 7, Pta. C, 28042 Madrid, Spain



GCR CERT

## CERTIFICATE



### JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRESPADERNE, NUM 7  
PLANTA 3, PUERTA C  
28042 MADRID - (MADRID), SPAIN

In recognition of the organization's Management System which complies with

#### GDP

The scope of activities covered by this certificate is defined below

MANUFACTURING, SALES AND SERVICE OF GENERATOR AND GENERATOR COMPLEMENTS, WATER PUMP, FORKLIFT, UPS, REGULATOR, CONVERTERS, SHUTTER POWER SUPPLIES

Certificate Number : GCR/CERT-11.2023.3586  
Certificate Issue Date : 01.11.2023  
Certificate Validity : 31.10.2024

Abimanyu Gaurav  
Abimanyu Gaurav  
Approval



GCR CERT

## CERTIFICATE



### JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRESPADERNE, NUM 7  
PLANTA 3, PUERTA C  
28042 MADRID - (MADRID), SPAIN

In recognition of the organization's Management System which complies with

#### GHP

The scope of activities covered by this certificate is defined below

MANUFACTURING, SALES AND SERVICE OF GENERATOR AND GENERATOR COMPLEMENTS, WATER PUMP, FORKLIFT, UPS, REGULATOR, CONVERTERS, SHUTTER POWER SUPPLIES

Certificate Number : GCR/CERT-11.2023.3587  
Certificate Issue Date : 01.11.2023  
Certificate Validity : 31.10.2024

Abimanyu Gaurav  
Abimanyu Gaurav  
Approval



GCR CERT

## CERTIFICATE



### JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRESPADERNE, NUM 7  
PLANTA 3, PUERTA C  
28042 MADRID - (MADRID), SPAIN

In recognition of the organization's Management System which complies with

#### ISO 22716:2013:GMP GOOD MANUFACTURING PRACTICES

The scope of activities covered by this certificate is defined below

MANUFACTURING, SALES AND SERVICE OF GENERATOR AND GENERATOR COMPLEMENTS, WATER PUMP, FORKLIFT, UPS, REGULATOR, CONVERTERS, SHUTTER POWER SUPPLIES

Certificate Number : GCR/CERT-11.2023.3585  
Certificate Issue Date : 01.11.2023  
Certificate Validity : 31.10.2024

Abimanyu Gaurav  
Abimanyu Gaurav  
Approval



GCR CERT

## CERTIFICATE

### HEALTHY & SAFE WORKPLACE CERTIFICATE

#### JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRESPADERNE, NUM 7  
PLANTA 3, PUERTA C  
28042 MADRID - (MADRID), SPAIN

It has been entitled to obtain a Healthy and Safe Workplace Certificate by fulfilling the requirements for COVID-19 measures, within the physical conditions of the business with in the scope of the Healthy and Safe Workplace Certificate program.

FACTORIES - PRODUCTION LOCATIONS:  
ELECTRICAL AND ELECTRONICS INDUSTRY

Certificate Number : GCR/CERT-11.2023.3600  
Certificate Issue Date : 07.11.2023  
Certificate Validity : 06.11.2024

Abimanyu Gaurav  
Abimanyu Gaurav  
Approval



GCR CERT

## CERTIFICATE



### JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRESPADERNE, NUM 7  
PLANTA 3, PUERTA C  
28042 MADRID - (MADRID), SPAIN

In recognition of the organization's Management System which complies with

#### ISO 10002:2018

The scope of activities covered by this certificate is defined below

MANUFACTURING, SALES AND SERVICE OF GENERATOR AND GENERATOR COMPLEMENTS, WATER PUMP, FORKLIFT, UPS, REGULATOR, CONVERTERS, SHUTTER POWER SUPPLIES

Certificate Number : GCR/CERT-10.2023.3525  
Certificate Issue Date : 25.10.2023  
Certificate Validity : 24.10.2024

Abimanyu Gaurav  
Abimanyu Gaurav  
Approval





[www.jcbenergy.es](http://www.jcbenergy.es)