



GCR CERT





### 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       |
| JCC 1400  | 50        | 231/400 | 0.8          | 1500  | Cummins       | KTA50G3    | KTA    | JCBENERGY | JCB              | 400L   | Standby    | 1.400,0 | 1.120,0 | 2.023,1 |
|           |           |         |              |       |               |            |        |           |                  |        | Prime      | 1.272,7 | 1.018,2 | 1.839,2 |
|           |           |         |              |       |               |            |        |           |                  |        | Continuous | 890,9   | 712,7   | 1.287,4 |

- 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 | 2000                | 2390                  |
| LENGTH             | mm | 4500                | 6769                  |
| HEIGHT             | mm | 2310                | 3156                  |
| WEIGHT (NET)       | Kg | 7120                | 11500                 |
| FUEL TANK CAPACITY | L  | 2250                | 2250                  |

| SYMBOL | OPEN | CANOPY |
|--------|------|--------|
| L      | 4500 | 6769   |
| W      | 2000 | 2390   |
| H      | 2310 | 2356   |
| S      |      | 800    |
| A      | 500  |        |
| B      | 1720 |        |
| C      | 1870 |        |
| D1     |      | 1298   |
| D2     |      | 1044   |
| D3     |      | 1044   |
| D4     |      |        |
| D5     |      |        |



## DIESEL ENGINE MAIN TECHNICAL PARAMETERS

| GENERAL   |                    |   |
|---|--------------------|---|
| Number of Cylinders                               |                    | 12  |
| Configuration                                     |                    | 60°Vee  |
| Aspiration  |                    | Turbo Charged & Aftercooled                       |
| Combustion System                                 |                    | Direct injection                                  |
| Compression Ratio                                 |                    | 13.9:1  |
| Bore  | mm                 | 159   |
| Stroke  | mm                 | 159   |
| Displacement                                      | L                  | 50,3  |
| 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   |                    |   |
| Air Filter  |                    | Dry Type, Replaceable                             |
| Fuel Filter                                       |                    | With Water Separator                              |
| Oil Filter  |                    | Element Type, Particulate Trap                    |
| LUBRICATION SYSTEM                                |                    |   |
| Total System                                      | L                  | 177   |
| Minimum Oil Level                                 | L                  | 152   |
| Nominal Motor Operating Temperature               | °C                 | 50  |
| Lubricating Oil Pressure (Rated Speed)            | bar                | 4,8   |
| Relief Valve Opens                                | kPa                | 300   |
| Oil / Fuel Consumption Ratio                      | %                  | <0,1  |
| Normal Oil Temperature                            | °C                 | 120   |
| FUEL CONSUMPTION                                  |                    |   |
| Standby - Load 110%                               | L/h                | 289,63  |
| Prime - Load 100%                                 | L/h                | 262,01  |
| Prime - Load 75%                                  | L/h                | 200,40  |
| Prime - Load %50                                  | L/h                | 140,09  |
| COOLING SYSTEM                                    |                    |   |
| Radiator Type                                     | 50°C               | Tropical  |
| Total Coolant Capacity                            | L                  | 415   |
| 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                 | 98  |
| Thermostat Operation Temperature - Initial Open   | °C                 | 76  |
| Thermostat Operation Temperature - Full Open      | °C                 | 85  |
| Delivery of Coolant Pump                          | m <sup>3</sup> / h | 10,80   |
| Min. Pressure Before Coolant Pump                 | bar                | 0,5   |
| Radiator Face Area                                | m <sup>2</sup>     | 5,3   |
| Rows  | Row                | 7   |
| Matrix Density                                    | Per / Inch         | 12  |
| Material  |                    | Aluminum  |
| Width of Matrix                                   | mm                 | 2550  |
| Height of Matrix                                  | mm                 | 2080  |
| Pressure Cap Setting                              | kPa                | 90  |
| Estimated Cooling Air Flow Reserve                | kPa                | 0,125   |
| Engine Pre Heater-Tube (with Circulation Pump)    | W                  | 2 x 3000  |

## DIESEL ENGINE MAIN TECHNICAL PARAMETERS

| ELECTRICAL SYSTEM         |    |          |
|---------------------------|----|----------|
| Voltage                   | V  | 24       |
| Starter                   | kW | 2X9      |
| Alternator Output Ampere  | A  | 35       |
| Alternator Output Voltage | V  | 28       |
| Batteries Capacity        | Ah | 4x143    |
| FAN                       |    |          |
| Diameter                  | mm | 1600     |
| Drive Ratio               |    | 0.95:1   |
| Number of Blades          |    | 12       |
| Material                  |    | Aluminum |
| Type                      |    | Blowing  |

## DIESEL ENGINE MATCHING PARAMETERS - 50 HZ

| 50 HZ @ 1500 R/MIN                         |                      | STAND BY | PRIME   |
|--|----------------------|----------|---------|
| Gross Engine Power                         | kW                   | 1227,0   | 1115,5  |
| Net Engine Power                           | kW                   | 1192,0   | 1083,6  |
| Fan Power Consumption (Belt Pulley Driven) | kW                   | 21,0     | 21,0    |
| Other Power Loss                           | kW                   | 14,0     | 14,0    |
| Mean Effective Pressure                    | MPa                  | 1951,00  | 1951,00 |
| Intake Air Flow                            | m <sup>3</sup> / min | 104,71   | 104,71  |
| Exhaust Temperature Limit                  | °C                   | 525      | 525     |
| Exhaust Flow                               | m <sup>3</sup> / min | 240,00   | 240,00  |
| Boost Pressure Ratio                       |                      | 150,00   | 150,00  |
| Mean Piston Speed                          | m / s                | 7,9      | 7,9     |
| Cooling Fan Air Flow                       | m <sup>3</sup> / min | 1770,0   | 1770,0  |
| Typical Generator Output Power             | kVA                  | 1430     | 1300    |
| Alternator Efficiency                      | %                    | 96,0     | 96,0    |
| HEAT REJECTION                             |                      | STAND BY | PRIME   |
| Energy in Fuel (Heat of Combustion)        | kW                   | 2790,0   | 2790,0  |
| Gross Heat to Power                        | kW                   | 1227,0   | 1227,0  |
| Energy to Coolant and Lubricating Oil      | kW                   | 683,0    | 683,0   |
| Energy to Exhaust                          | kW                   | 730,0    | 730,0   |
| Heat to Radiation                          | kW                   | 150,00   | 150,00  |

## ALTERNATOR SPECIFICATIONS






### ALTERNATOR TECHNICAL PARAMETERS

|                  |               |                                 |                    |
|------------------|---------------|---------------------------------|--------------------|
| Insulation Class | H             | Field Control System            | Self-Excited       |
| Winding Pitch    | 2/3 - (N° 6)  | A.V.R. Model                    | Standard           |
| Wires            | 6             | Voltage Regulation              | % ± 1              |
| 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. 1,614 | Wave Form: I.E.C. = THF - (*)   | % < 1.5            |
| Bearing Drive    | N/A -         | Bearing Non-Drive               | Bearing 6317-2RZ   |
| Rotor Winding    | 100% Copper   | Stator Winding                  | 100% Copper        |

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

#### STANDARD USING ALTERNATOR

#### OPTIONAL USING ALTERNATOR

| BRAND/MODEL        |  | JCB 400M       |  | TAL049E        |  | HC6J           |         |                |         |
|--------------------|---|----------------|---|----------------|---|----------------|---------|----------------|---------|
| DUTY               |   |                | Continuous  |                |   | Stand By       |         |                |         |
| AMBIENT            | C°  |                | 40°C  |                |   | 27°C           |         |                |         |
| CLASS / TEMP. RISE | C°  |                | H/ 125° K   |                |   | H/ 163° K      |         |                |         |
| SERIES STAR        | 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 |
| PARALLEL STAR      | V   | <b>190/110</b> | 200/115   | <b>208/120</b> | 220   | <b>190/110</b> | 200/115 | <b>208/120</b> | 220     |
| SERIES DELTA       | V   | <b>220</b>     | 230   | <b>240</b>     | 230   | <b>220</b>     | 230     | <b>240</b>     | 230     |
| OUTPUT POWER       | kVA   | <b>1273,0</b>  | 1273,0  | <b>1321,0</b>  | -   | <b>1400,0</b>  | 1400,0  | <b>1453,0</b>  | -       |
| OUTPUT POWER       | kW  | <b>1018,4</b>  | 1018,4  | <b>1056,8</b>  | -   | <b>1120,0</b>  | 1120,0  | <b>1162,4</b>  | -       |

## 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: 251622013423

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-2028

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

Issued by ARS Assessment Private Limited  
Managing Director



IAF Address: 471, North Center Dr., STE 202, Norfolk, VA 23502, United States of America  
This certificate is issued in accordance with the requirements of the standard and the certificate holder is not a member of the organization. The certificate holder is not a member of the organization. The certificate holder is not a member of the organization.

**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: 25162202423

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-2028

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**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 2028  
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: 471, North Center Dr., STE 202, Norfolk, VA 23502, United States of America  
This certificate is issued in accordance with the requirements of the standard and the certificate holder is not a member of the organization. The certificate holder is not a member of the organization. The certificate holder is not a member of the organization.

**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: 251622013424

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-2028

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**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 2028  
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: 471, North Center Dr., STE 202, Norfolk, VA 23502, United States of America  
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# 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 products 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

Rafael Muñoz

CERTIFICADO MANUFACTURER

VALIDADURA 29 December 2023

EDIFICIO ADDRESS: C/VA DE TRIENPADERNE, 7, P.O. 28042, MADRID, SPAIN



GCR CERT

## CERTIFICATE



### JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRIENPADERNE, 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-41.2023.3586  
Certificate Issue Date : 01.11.2023  
Certificate Validity : 31.10.2024

Abimanyu Gaurav  
Abimanyu Gaurav  
Approval



For additional information, please contact the GCR CERT office at the address provided. For any queries, please contact the GCR CERT office at the address provided. For any queries, please contact the GCR CERT office at the address provided.



GCR CERT

## CERTIFICATE



### JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRIENPADERNE, 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-41.2023.3587  
Certificate Issue Date : 01.11.2023  
Certificate Validity : 31.10.2024

Abimanyu Gaurav  
Abimanyu Gaurav  
Approval



For additional information, please contact the GCR CERT office at the address provided. For any queries, please contact the GCR CERT office at the address provided. For any queries, please contact the GCR CERT office at the address provided.



GCR CERT

## CERTIFICATE



### JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRIENPADERNE, 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-41.2023.3585  
Certificate Issue Date : 01.11.2023  
Certificate Validity : 31.10.2024

Abimanyu Gaurav  
Abimanyu Gaurav  
Approval



For additional information, please contact the GCR CERT office at the address provided. For any queries, please contact the GCR CERT office at the address provided. For any queries, please contact the GCR CERT office at the address provided.



GCR CERT

## CERTIFICATE

### HEALTHY & SAFE WORKPLACE CERTIFICATE

#### JCB ENERGY ELECTRIC POWER INDUSTRY

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

It has been certified 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-41.2023.3600  
Certificate Issue Date : 01.11.2023  
Certificate Validity : 06.11.2024

Abimanyu Gaurav  
Abimanyu Gaurav  
Approval



For additional information, please contact the GCR CERT office at the address provided. For any queries, please contact the GCR CERT office at the address provided. For any queries, please contact the GCR CERT office at the address provided.



GCR CERT

## CERTIFICATE



### JCB ENERGY ELECTRIC POWER INDUSTRY

CALLE DE TRIENPADERNE, 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-41.2023.3525  
Certificate Issue Date : 25.10.2023  
Certificate Validity : 24.10.2024

Abimanyu Gaurav  
Abimanyu Gaurav  
Approval



For additional information, please contact the GCR CERT office at the address provided. For any queries, please contact the GCR CERT office at the address provided. For any queries, please contact the GCR CERT office at the address provided.





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