
JCBENERGY
GENERATOR
JCB ENERGY ELECTRIC POWER INDUSTRY
MADRID / SPAIN
DNV
IAF
JCBENERGY
Perkins
IVECO
Baudouin
Schneider Electric
Cummins
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JDD 190 & 220

231 / 400 V – 50 Hz & 277 / 480 V – 60 Hz

67 dB (A) @ 7 mt

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
JDD 190	50	231/400	0.8	1500	DOOSAN	P086TI-1	P	JCB	JCB	270M	**Standby**	**190,0**	**152,0**	**274,6**
											Prime	172,7	138,2	249,6
											Continuous	120,9	96,7	174,7
JDD 220	60	277/480	0.8	1800						270M	**Standby**	**220,0**	**176,0**	**317,9**
											Prime	200,0	160,0	289,0
											Continuous	140,0	112,0	202,3

- 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.

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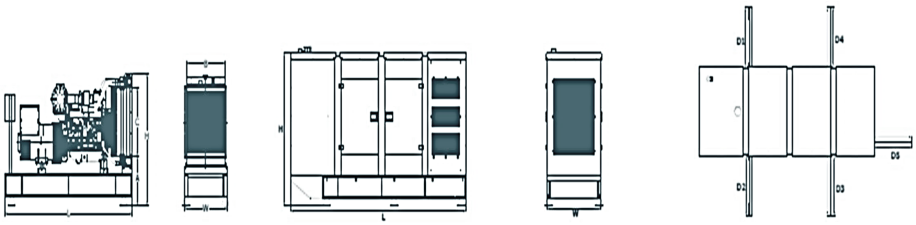
PAY ATTENTION TO THE POINTS BELOW IN PICKING AND USING THE GENERATOR

* 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	900	1140
LENGTH	mm	2400	3650
HEIGHT	mm	1549	1900
WEIGHT (NET)	Kg	1328	1690
FUEL TANK CAPACITY	L	256	678

SYMBOL	OPEN	CANOPY
L	2400	3650
W	900	1140
H	1612	2000
S		80
A	535	
B	810	
C	896	
D1		860
D2		860
D3		860
D4		860
D5		860



FUEL CONSUMPTION

PERCENT OF PRIME POWER	1500 rpm		1800 rpm	
	g/kWh	l/hr	g/kWh	l/hr
110 %	200,0	38,8	200,0	45,2
100 %	195,0	34,4	195,0	40,2
75 %	197,0	26,1	197,0	30,4
50 %	212,0	18,7	212,0	21,8

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DIESEL ENGINE MAIN TECHNICAL PARAMETERS

GENERAL ENGINE DATA	
Engine Model	P086TI-1
Engine Type	4-Cycle, In-line, 6-Cylinder Diesel, Water Cooled, Turbo Charged & Intercooled
Bore x Stroke	111 x 139mm
Displacement	8.071 liters
Compression Ratio	16.4:1
Rotation	Counter clockwise viewed from Flywheel
Firing Order	1-5-3-6-2-4
Fuel System	Doowon in-line "P" type
Governor	Electronic
Governor Class	G3
Cooling System	
Total System Coolant Capacity	14L
Thermostat Operation Range	80~90°C
Maximum Temperature to Engine	105°C
Minimum Temperature to Engine	70°C
Coolant Temperature Alarm	105°C
Limits of the Environment Temperature	52°C
Lubrication System	
Lubrication Oil Capacity	15,5L
Lubrication Oil Pressure	min 250 kPa (50Hz) /min 300 kPa (60Hz)
Lubrication Oil Temperature	At normal operation 105°C, Maximum 125°C
Lubrication Oil Consumption as % Fuel Consumption	0.1 % maximum
Pressure of Oil Relief Valve Opening	550 ± 50 kPa
Electrical System	
Alternator	28.5V x 45A alternator
Starter Motor	24V x 6.0 kW
FAN	
Diameter	660mm
Number Of Blade	7
Material	Plastic

DOOSAN INFRACORE GENSET ENGINE

Engine Model	rpm	Gross Engine Output(kWm)		Typical Generator Output (kVa)	
		Stand-by	Prime	Stand-by	Prime
P086TI-1	1500	164	149	191	173
	1800	197	174	222	202

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JCB ALTERNATOR TECHNICAL PARAMETERS AND SPECIFICATIONS

ALTERNATOR TECHNICAL PARAMETERS					
Insulation Class		H	**Field Control System**		Self-Excited
Winding Pitch		2/3 - (N° 6)	**A.V.R. Model**	Standard	SX460
Wires		12	**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	m^3/sec.	0.514	**Wave Form: I.E.C. = THF - (*)**	%	< 2
Bearing Drive	N/A	-	**Bearing Non-Drive**	Bearing	6310-2RZ
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	JCB ENERGY	JCB 270M		LEROY-SOMER	TAL044L		STAMFORD	UC 274 G	
DUTY				**Continuous**				**Stand By**	
AMBIENT	C°			40°C				27°C	
CLASS / TEMP. RISE	C°			H/ 125° K				H/ 163° K	
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	**182,0**	182,0	**189,0**	-	**200,0**	200,0	**208,0**	-
OUTPUT POWER	kW	**145,6**	145,6	**151,2**	-	**160,0**	160,0	**166,4**	-

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

STANDARD USING ALTERNATOR				OPTIONAL USING ALTERNATOR					
BRAND/MODEL	JCB ENERGY	JCB 225S2		LEROY-SOMER	TAL044K		STAMFORD	UC 274 F	
DUTY				Continuous				Stand By	
AMBIENT	C°			40°C				27°C	
CLASS / TEMP. RISE	C°			H / 125° K				H / 163° K	
SERIES STAR	V	**416/240**	440/254	**480/277**	1 Phase	**416/240**	440/254	**480/277**	1 Phase
PARALLEL STAR	V	**208/120**	220/127	**240/138**	-	**208/120**	220/127	**240/138**	-
SERIES DELTA	V	**240**	254	**277**	240	**240**	254	**277**	240
OUTPUT POWER	kVA	**184,0**	194,0	**204,0**	-	**202,0**	213,0	**224,0**	-
OUTPUT POWER	kW	**147,6**	155,0	**163,2**	-	**162,0**	170,0	**179,0**	-

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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	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

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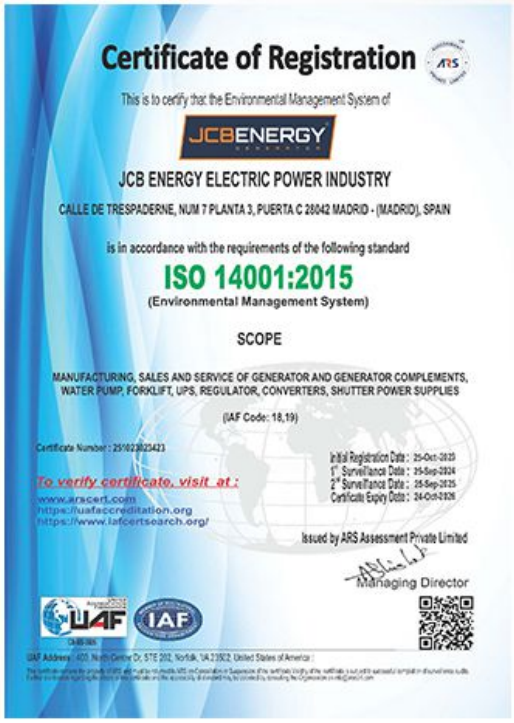
CONTROL MODULE FUNCTION

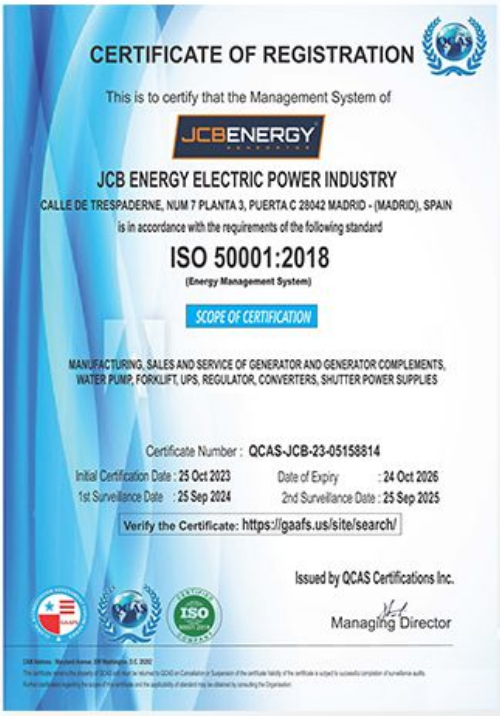
Mains Voltage Level Control	Generator Voltage Level Control	3 Phase Generator Protections	3 Phase AMF Function	Alarm Horn
Network Frequency Level Control	Generator Frequency level Control	- High / Low Voltage	- High / Low Frequency	Heater Tube Thermostat Control
Engine Operating Option Control	Generator 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

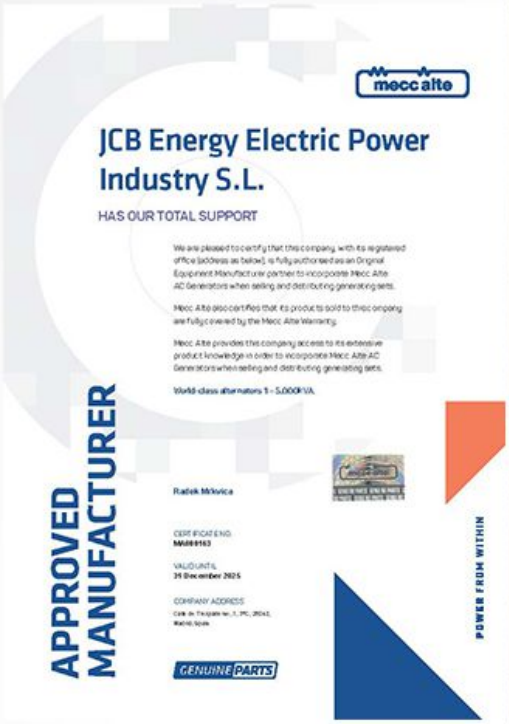
SOUND PROOF CANOPY AND BASE FRAME (CHASIS) SPECIFICATIONS

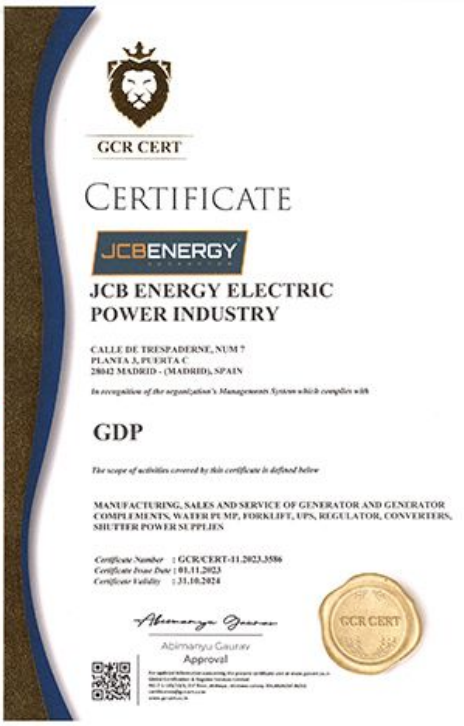
- Special, Registered JCB Energy Design and Colour
- A1 Quality DKP / HRU / Galvanized Steel
- Sensitive Twist on Automatic Press Brake
- Delicate Cut on Automatic Punch and Laser Bench
- Sensitive Welding on Robotic Welding Bench
- Chemical Cleaning Nano Technology Before Painting
- Robotic Painting with Electrostatic Powder Paint
- Drying and stabilizing on 200 ºC Ovens
- 1500 Hour Salt Test
- Glass wool Isolation, A1 Class Material -50/+500 ºC
- 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






mecc alte
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 authorised 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 is 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 - 5,000KVA
APPROVED MANUFACTURER
Radek Mikovica
CERTIFICATE NO:
MA0001163
VALID UNTIL
31 December 2025
COMPANY ADDRESS
GENUINE PARTS
POWER FROM WITHIN


GCR CERT
CERTIFICATE
JCBENERGY
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
Approval


GCR CERT
CERTIFICATE
JCBENERGY
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
Approval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CERTIFICATE
JCBENERGY
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
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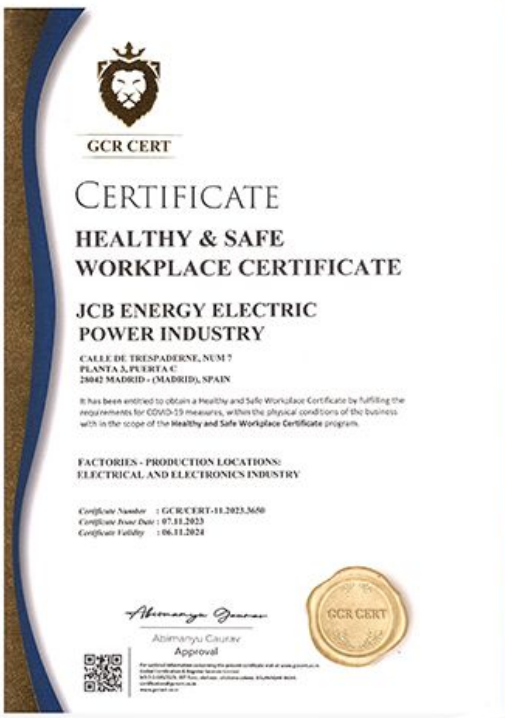
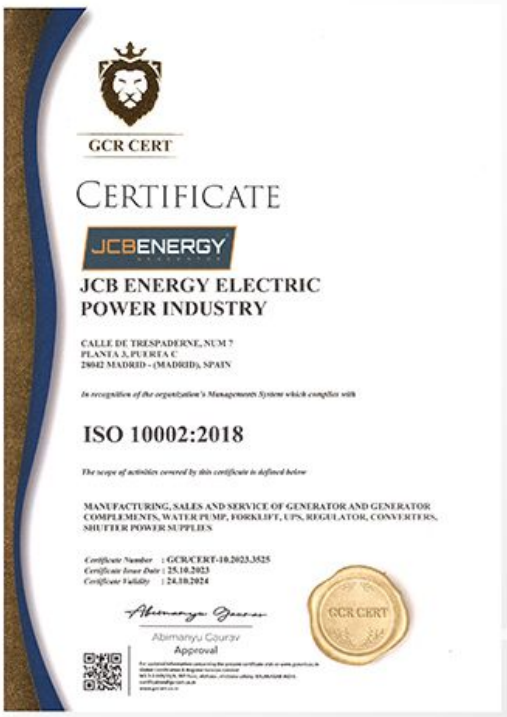
Certificate Issue Date : 01.11.2023
Certificate Validity : 31.10.2024
Abimanyu Gaurav
Approval


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-11.2023.3650
Certificate Issue Date : 07.11.2023
Certificate Validity : 06.11.2024
Abimanyu Gaurav
Approval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CERTIFICATE
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CALLE DE TRESPADERNE, NUM 7
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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
Approval

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GENERATOR

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