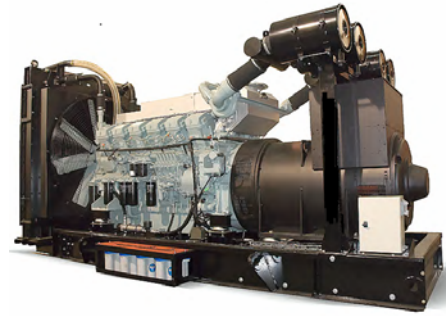




# JCB DIESEL GENERATOR TECHNICAL SPECIFICATIONS



G2250QX



G2250X

Powered by MITSUBISHI

| ELECTRICAL       |     | PRIME   | STAND BY |
|------------------|-----|---------|----------|
| Output Rating    | kVA | 2029    | 2250     |
|                  | Kw  | 1623    | 1800     |
| Frequency        | Hz  | 50      |          |
| Rated Speed      | RPM | 1500    |          |
| Standard Voltage | v   | 400/230 |          |
| Circuit Breaker  | amp | 3200    |          |
| Power Factor     |     | 0.8     |          |

| ALTERNATOR          |       |                           |
|---------------------|-------|---------------------------|
| Poles               | No    | 4                         |
| Winding Connections |       | Star                      |
| Frame Mounting      |       | SAE 0-21"                 |
| Insulation          | Class | H                         |
| Enclosure           |       | IP23                      |
| Exciter System      |       | Self-regulating brushless |
| Voltage Regulator   |       | AVR (electronic)          |
| Stead Voltage       |       | +/- 1.5%                  |
| Bearing             |       | Single bearing sealed     |
| Coupling            |       | Flexible disc             |

**Prime:** This rating is for the supply of continuous electrical power, at variable load, in lieu of commercially purchase power. There is no limitation on the annual hours of operation and 10% over load power can be supplied for 1 hour in 12.

**Standby:** This rating is for the supply of continuous electrical power, at variable load, in the event of a Utility power failure. No overload is permitted.

| ENGINE              |     | PRIME                           | STAND BY |
|---------------------|-----|---------------------------------|----------|
| Output Rating       | Kw  | 1684                            | 1895     |
| Manufacturer        |     | MITSUBISHI                      |          |
| Engine Model        |     | S16R-PTAA2                      |          |
| Fuel                |     | Diesel                          |          |
| Injection           |     | Direct                          |          |
| Aspiration          |     | Turbo Charged with Inter-cooler |          |
| Cylinders           | L   | 16V                             |          |
| Bore and Stroke     | mm  | 170 x 180                       |          |
| Displacement        | l   | 65.37                           |          |
| Cooling             |     | Water                           |          |
| Engine Oil          |     | API CD CF – SAE 30 - SAE 40     |          |
| Compression Ratio   |     | 13.5:1                          |          |
| Fuel Consumption    |     |                                 |          |
| 100% Load Prime     | l/h | 399                             |          |
| 75% Load Prime      | l/h | 299                             |          |
| 100% Load Standby   | l/h | 449                             |          |
| 75% Load Standby    | l/h | 337                             |          |
| Engine Oil Capacity | l   | 230                             |          |
| Coolant capacity    | l   | 470                             |          |
| Governor            |     | Electronic                      |          |
| Air Filter          |     | Heavy Duty                      |          |

| EXHAUST SYSTEM                          |                     |     |
|-----------------------------------------|---------------------|-----|
| Maximum Temperature 100% Standby        | °C                  | 560 |
| Exhaust Gas Flow 100% Standby           | m <sup>3</sup> /min | 420 |
| Maximum Allowed Back Pressure           | mm H <sup>2</sup> O | 600 |
| Exhaust Flange Size (Internal Diameter) | mm                  | 350 |

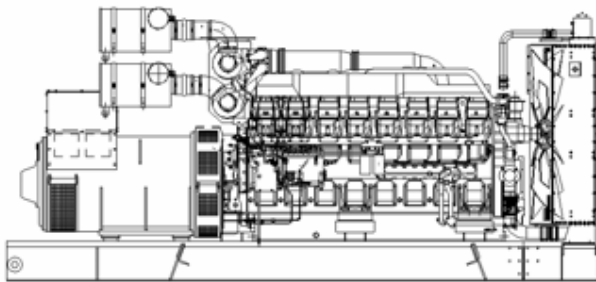
| AIR SYSTEM                    |                     |      |
|-------------------------------|---------------------|------|
| Intake Air Flow 100% Standby  | m <sup>3</sup> /min | 159  |
| Cooling Air Flow 100% Standby | m <sup>3</sup> /min | 2500 |

| STARTING SYSTEM                 |     |          |
|---------------------------------|-----|----------|
| Starter Motor                   | Kw  | 7.5 x 2  |
|                                 | CV  | 10.2 x 2 |
| Battery Capacity                | Ah  | 400      |
| Auxiliary Voltage               | VCC | 24       |
| Starter Current – Maximum Power | Amp | 1250     |
| – Firing Speed                  | Amp | 400      |

| FUEL SYSTEM                           |       |                                 |
|---------------------------------------|-------|---------------------------------|
| Diesel Specification                  |       | BS2869 class A or ASTM D975No.2 |
| Maximum suction head of feed pump     | mm Hg | 75                              |
| Maximum static head return & leak off | mm Hg | 150                             |
| Open Skid Fuel Tank Capacity          | l     | 450                             |
| Container Fuel Tank Capacity          | l     | 2000                            |

## WEIGHT AND DIMENSIONS - OPEN

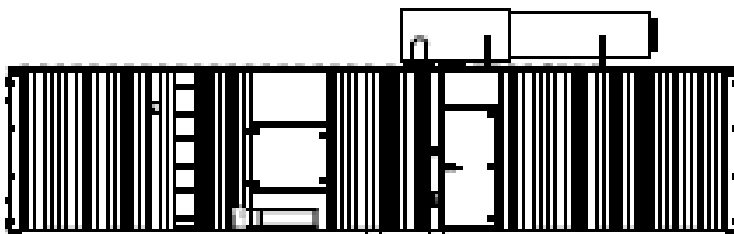
|                             |                |        |
|-----------------------------|----------------|--------|
| Length                      | mm             | 6,100  |
| Width                       | mm             | 2,200  |
| Height                      | mm             | 2,870  |
| Shipping Volume (Sea Ready) | m <sup>3</sup> | 38.52  |
| Wet Weight (Standard Build) | Kg             | 16,500 |
| Dry Weight (Standard Build) | Kg             | 16,128 |



## JCB G2250X

## WEIGHT AND DIMENSIONS - 40HC ISO CONTAINER

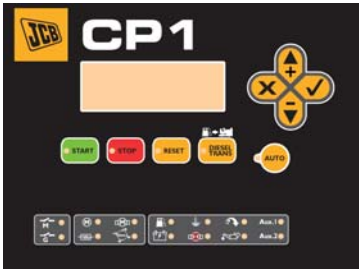
|                             |                |        |
|-----------------------------|----------------|--------|
| Length                      | mm             | 12,192 |
| Width                       | mm             | 2,438  |
| Height                      | mm             | 2,896  |
| Shipping Volume (Sea Ready) | m <sup>3</sup> | 75.3   |
| Wet Weight (Standard Build) | Kg             | 24,500 |
| Dry Weight (Standard Build) | Kg             | 24,128 |
| Sound Level @ 1M            | db(A)          | 90     |



## JCB G2250QX

## CONTROL PANEL – JCB CPI

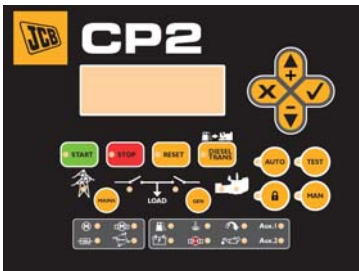
The JCB CPI control system is digital and has the capability to control, monitor and protect the generator. The display allows the user to easily monitor the status of the generator through an LCD display and LED outputs. It enables control of the generator operations through soft touch push button functionality and multi lingual capability



## CONTROL PANEL – JCB CP2

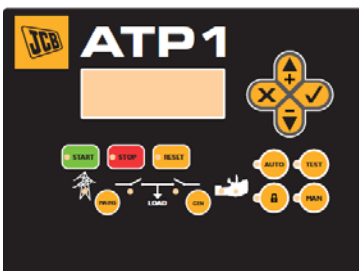
The JCB CP2 control system is digital and has the capability to control, monitor and protect the generator the same as the JCB CPI panel but additionally incorporates the functionality of the control module of the JCB ATP1.

The JCB CP2 Panel constantly monitors the mains and has to be hardwired into both mains and generator contactors. The display allows the user to easily monitor the status of the generator as well as controlling generator operation



## CONTROL PANEL – JCB ATP1

The JCB ATP1 control module is integrated into an Automatic Transfer Switch, which provides automatic mains failure capability. The JCB ATP1 can communicate with a generator through either 2 wire start volt free contactors or CANBUS through CPI to ATP1 (not compatible with CP2). The JCB ATP1 when connected via CANBUS to the JCB CPI will give control functions and display generator information.



| CONTROL PANEL FEATURES            | CPI | CP2 | ATPI |
|-----------------------------------|-----|-----|------|
| <b>GENERATOR</b>                  |     |     |      |
| Phase to Phase Voltage            | •   | •   | •    |
| Phase to Neutral                  | •   | •   | •    |
| Phase Amperage                    | •   | •   | •    |
| Frequency                         | •   | •   | •    |
| kVA                               | •   | •   | •    |
| Kw                                | •   | •   | •    |
| kVAr                              | •   | •   | •    |
| Power Factor                      | •   | •   | •    |
| <b>MAINS</b>                      |     |     |      |
| Phase to Phase Voltage            | x   | •   | •    |
| Phase to Neutral                  | x   | •   | •    |
| Phase Amperage                    | x   | •   | •    |
| Frequency                         | x   | •   | •    |
| kVA                               | x   | x   | •    |
| Kw                                | x   | x   | •    |
| kVAr                              | x   | x   | •    |
| Power Factor                      | x   | x   | •    |
| <b>ENGINE</b>                     |     |     |      |
| Coolant Temperature               | •   | •   | x    |
| Oil Pressure                      | •   | •   | x    |
| Fuel Level Percentage             | •   | •   | x    |
| Battery Voltage                   | •   | •   | x    |
| Engine RPM                        | •   | •   | x    |
| Battery Charge Alternator Voltage | •   | •   | x    |
| <b>ENGINE ALARMS</b>              |     |     |      |
| High Water temperature            | •   | •   | x    |
| High Coolant Temperature          | •   | •   | x    |
| Low Oil Pressure                  | •   | •   | x    |
| Low Coolant Level                 | •   | •   | x    |
| Unexpected Shutdown               | •   | •   | x    |
| Failure to Stop                   | •   | •   | x    |
| Battery Voltage Failure           | •   | •   | x    |
| Battery Charge Alternator Failure | •   | •   | x    |
| Over Speed                        | •   | •   | x    |
| Under Speed                       | •   | •   | x    |
| Failure to Start                  | •   | •   | x    |
| Low Fuel level                    | •   | •   | x    |
| Emergency Stop                    | •   | •   | •    |
| <b>ALTERNATOR ALARMS</b>          |     |     |      |
| High Frequency                    | •   | •   | •    |
| Low Frequency                     | •   | •   | •    |
| High Voltage                      | •   | •   | •    |
| Low Voltage                       | •   | •   | •    |
| Over Amperage                     | •   | •   | x    |
| Short Circuit                     | •   | •   | x    |
| Symmetry Between Phases           | •   | •   | •    |
| Incorrect Phasing                 | •   | •   | •    |
| Inverse Power                     | •   | •   | x    |
| Over Load                         | •   | •   | x    |
| Generator Drop                    | x   | x   | •    |

• Standard x Not Available

| CONTROL PANEL FEATURES                  | CPI | CP2 | ATPI |
|-----------------------------------------|-----|-----|------|
| <b>MEASUREMENT</b>                      |     |     |      |
| Total Hours Run                         | •   | •   | •    |
| Kilowatt Meter                          | •   | •   | •    |
| Number of Starts                        | •   | •   | •    |
| Number of Start Failures                | •   | •   | •    |
| Service Indicator                       | •   | •   | •    |
| <b>CONNECTIVITY</b>                     |     |     |      |
| Remote Screen (CAN)                     | △   | △   | △    |
| Local Monitoring (CANBUS)               | △   | △   | △    |
| Local Monitoring (CANLAN)               | △   | △   | △    |
| Remote Monitoring (CANModem – Fixed)    | △   | △   | △    |
| Remote Monitoring (CANModem – GSM)      | △   | △   | △    |
| <b>FEATURES</b>                         |     |     |      |
| Events History                          | •   | •   | •    |
| External Start capability               | •   | •   | •    |
| Programmable Start Restriction          | •   | •   | •    |
| Mains Failure Start                     | •   | •   | •    |
| Generator Contact Activation            | •   | x   | x    |
| Mains and Generators Contact Activation | x   | •   | •    |
| Fuel Transfer Control                   | •   | •   | x    |
| Engine Temperature                      | •   | •   | x    |
| Manual Override                         | •   | •   | x    |
| Programmable Alarms                     | •   | •   | x    |
| Generator Start in Test Mode            | •   | •   | x    |
| Programmable Outputs                    | •   | •   | x    |
| Multi Lingual                           | •   | •   | •    |
| Programmable Timer                      | •   | •   | x    |
| Synchronisation                         | •   | •   | x    |

• Standard    x Not Available    △ Optional

## REFERENCE STANDARDS

JCB Generators are CE certified and conform to the following Directives:

- EN ISO 13857:2008
- 2006/95/EC
- 89/336/EEC
- 2000/14/EC (amended by 2005/88/EC)
- 97/68/EC (amended by 2002/88/EC & 2004/26/EC)
- Ambient reference conditions 1000mbar, 25°C, 30% relative humidity ISO8528
- Power according to ISO3046

| GENERATOR FEATURES                     | STANDARD | OPTIONAL |
|----------------------------------------|----------|----------|
| <b>ENGINE</b>                          |          |          |
| Engine                                 | •        | x        |
| Cooling Pack                           | •        | x        |
| Tropicalised Radiator                  | x        | •        |
| Heavy Duty Air Filter                  | •        | x        |
| MTU ADEC Governor                      | •        | x        |
| High Water Temperature Sender          | •        | x        |
| Low Oil Pressure Sender                | •        | x        |
| Oil Temperature Sender                 | •        | x        |
| Radiator Guards                        | •        | x        |
| Hot Component Guards                   | •        | x        |
| Manual Oil Drain Pump                  | •        | x        |
| Electric Oil Drain Pump                | x        | •        |
| Fuel Heater                            | x        | •        |
| Electric Fuel Transfer Pump            | x        | •        |
| Low Coolant Level Senders              | •        | x        |
| Battery Charger                        | x        | •        |
| Water Jacket Heater                    | x        | •        |
| Exhaust Gas Compensator                | •        | x        |
| Industrial Silencer – Open Set         | •        | x        |
| Residential Silencer – Open Set        | x        | •        |
| Residential Silencer – Container       | •        | x        |
| <b>ELECTRICS</b>                       |          |          |
| Alternator                             | •        | x        |
| Circuit Breaker                        | •        | x        |
| Busbar                                 | •        | x        |
| Heavy Duty Batteries                   | •        | x        |
| Battery Isolator                       | •        | x        |
| Preparation for Earth Spike            | •        | x        |
| Anti-condensation Heater               | x        | •        |
| Optional Voltages                      | x        | •        |
| Class F Insulation                     | x        | •        |
| JCB CPI Digital Controller             | •        | x        |
| JCB CP2 Digital Controller             | x        | •        |
| JCB ATP1 Automatic Transfer Switch     | x        | •        |
| External Emergency Stop Button         | •        | x        |
| <b>FABRICATIONS</b>                    |          |          |
| Heavy Duty Base Frame                  | •        | x        |
| Integral Fuel Tank                     | •        | x        |
| ISO Container 20' (6,096mm)            | x        | •        |
| Double Skin Fuel Tank                  | x        | •        |
| Rockwool Sound Attenuation             | x        | •        |
| Window for External Control Panel View | x        | •        |
| Anti-condensation Heater               | x        | •        |
| Optional Voltages                      | x        | •        |
| Class F Insulation                     | x        | •        |
| JCB CPI Digital Controller             | •        | x        |
| JCB CP2 Digital Controller             | x        | •        |
| JCB ATP1 Automatic Transfer Switch     | x        | •        |