

# JCB DIESEL GENERATOR TECHNICAL SPECIFICATIONS



## G125QI

| ELECTRICAL           |                   |                |                  |
|----------------------|-------------------|----------------|------------------|
| FREQUENCY            | VOLTAGE           | PRIME          | STAND BY         |
| 50Hz                 | 415 / 240V        | 125kVA / 100kW | 137.5kVA / 110kW |
| Rated Speed          | 1500 rpm          |                |                  |
| Circuit Breaker      | 4 pole protection |                |                  |
| Power Factor / Phase | 0.8 / 3 phase     |                |                  |

All ratings to standard reference conditions ISO8528

| ALTERNATOR                      |                                     |
|---------------------------------|-------------------------------------|
| Model                           | Mecc Alte ECP34-1M4C                |
| Poles                           | 4 pole                              |
| Winding Connections             | Star                                |
| Insulation                      | Class H                             |
| Enclosure                       | IP23                                |
| Exciter System                  | Self-regulating brushless           |
| Voltage Regulator               | DSRL                                |
| Steady State Voltage Regulation | +/- 1.0%                            |
| Bearing                         | Single bearing sealed               |
| Coupling                        | Flexible disc                       |
| Cooling                         | Direct drive centrifugal blower fan |

| MAXIMUM LOAD ACCEPTANCE IN A SINGLE STEP |
|--|
| 60%                                      |

**Prime:** The maximum power which the generating set is capable of delivering continuously while supplying a variable electrical load. Average load should be 70% of prime power rating. There is no limitation on the annual hours of operation and 10% overload power can be supplied for 1 hour per 12 hrs.

**Standby:** The max power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 hrs of operation per year. Average load should be 70% of standby power rating. No overload is permitted.

| ENGINE                   |           |                    |                            |
|--------------------------|-----------|--------------------|----------------------------|
| Make & Model             |           |                    | M&M 125kVA Mech<br>CPCB II |
| Output Rating            |           | kW                 | 114.8                      |
| Engine BHP               |           |                    | 156                        |
| Fuel                     |           |                    | Diesel                     |
| Injection                |           |                    | Direct                     |
| Aspiration               |           |                    | Turbo Charged              |
| Cylinders                |           |                    | 6                          |
| Displacement             |           | liter              | 7.12                       |
| Cooling                  |           |                    | Water                      |
| Engine Oil Specification |           |                    | 15W40 API CI4+             |
| Compression Ratio        |           |                    | 16.8:1                     |
| Engine Oil Capacity      |           | liter              | 19.8                       |
| Oil Consumption          |           | % of fuel consumed | <0.1                       |
| Coolant capacity         |           | liter              | 25                         |
| Governor                 |           |                    | Mechanical                 |
| Air Filter               |           |                    | 2 stage paper element      |
| Fuel<br>Consumption      | 50% Load  | l/h                | 16.0                       |
|                          | 75% Load  | l/h                | 21.4                       |
|                          | 100% Load | l/h                | 28.4                       |

| STARTING SYSTEM   |    |     |
|-------------------|----|-----|
| Starter Motor     | kW | 4.2 |
| Battery Capacity  | Ah | 150 |
| Auxiliary Voltage | V  | 24  |

| EXHAUST SYSTEM                      |      |     |
|-------------------------------------|------|-----|
| Maximum Temperature<br>100% Standby | °C   | 600 |
| Exhaust Gas Flow 100%<br>Standby    | kg/h | 558 |
| Maximum Allowed Back<br>Pressure    | mbar | 100 |

| AIR SYSTEM                               |      |     |
|--|------|-----|
| Maximum allowed air intake<br>depression | mbar | 60  |
| Air flow at<br>Standby rating            | kg/h | 383 |

| FUEL SYSTEM          |       |     |
|----------------------|-------|-----|
| Diesel Specification |       | HSD |
| Fuel Tank Capacity   | liter | 310 |
| Base Frame Thickness | mm    | 2.5 |

| WEIGHT AND DIMENSIONS                                    |    |              |
|--|----|--------------|
| Length   | mm | 3750         |
| Width  | mm | 1300         |
| Height   | mm | 1750         |
| Dry Weight (Standard Build inclusive of coolant and oil) | kg | 2150         |
| Sound Level @ 1m   | dB | Less than 75 |

| CONTROL PANEL |              |                         |
|---------------|--------------|-------------------------|
| Body          | mm           | 1.5 sheet Steel         |
| Controller    | Deepsea 4520 | Liveline option enabled |
| MCCB          | A            | 175                     |

| Display parameters                           | Audio-Visual warning  | Shut-down with Audio-visual annunciation |
|--|-----------------------|--|
| Engine RPM                                   | Low Oil pressure      | Low Oil Pressure                         |
| Coolant temperature                          | High Coolant temp.    | High coolant temp.                       |
| DG set hours run                             | Fail to start.        | Low Fuel level                           |
| Fuel level Indication %                      | Low Battery Voltage   | Engine Over speed                        |
| Battery Voltage                              | High Battery Voltage  | Engine under speed                       |
| Gen. Volts ( Phase- neutral & Phase- Phase ) | Over Voltage          | Over Current                             |
| Gen. Current ( Amps.)                        | Under Voltage         | Under voltage                            |
| Gen. Frequency ( Hz.)                        | Low fuel level        | Over voltage                             |
| Power factor                                 | Fail to stop          | Over frequency                           |
| KVAr   | Charging alt. Failure | Under frequency                          |
| kW   |                       | Water in Fuel                            |
| kVA  |                       | Emergency Stop                           |
| Charging Alternator Voltage                  |                       |  |
| Real time Clock                              |                       |  |

- Ambient reference conditions 1000mbar, 25°C, 30% relative humidity ISO8528
- Power according to ISO3046
- Information based on standard specification equipment unless otherwise stated
- Conformance Standards IS 1460,ISO8528,ISO3046,IS13018
- Fuel Consumption data is based on Diesel having specific gravity of 0.85 & conforming to IS 1460 & fuel consumption tolerance is +5%
- Oil consumption data is based on oil with 0.89 Specific gravity.

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