

1.1 CATERPILLAR Package Genset Type: DE150E0-C



Image shown may not reflect actual package

1.1.1 Engine Technical Data:

| | |
|-------------------------|-------------------------------|
| Type Of Engine: | Four-Stroke, Diesel Fuel |
| Application: | Power Generation, Prime Power |
| Cylinders Arrangement: | Inline Type |
| No. Of Cylinders: | 6 Cylinder |
| No. Of Strokes: | Four Strokes |
| Bore: | 105 mm |
| Stroke: | 135 mm |
| Displacement: | 7 L |
| Induction: | Turbocharged |
| Compression Ratio: | 16:1 |
| Genset Output: | 135 kVA - 108 kW |
| Revolutions Per Minute: | 1500 RPM |

1.1.2 Air Inlet System:

- Air cleaner; light duty with disposable element

1.1.3 Exhaust System

- Canopied Silencer

1.1.4 Fuel System

- Standard Fuel tank / base supplied Base, formed steel with single wall integral 8-hour fuel tank

1.1.5 Starting System

- 12V Battery with rack & cables
- Battery Charger

1.1.6 Cooling System

- Radiator and cooling fan with guards
- Coolant drain line with valve
- Fan drive, battery charging alternator drive
- Caterpillar Extended Life Coolant

1.1.7 Lubrication System

- Lubricating oil
- Oil drain line with valve

1.1.8 Governing System

- Mechanical Governor

1.1.9 Mounting System

- Captive linear vibration isolators between base and engine-generator Includes lifting provision and drag points
- Termination points for coolant and lube oil drain lines

1.1.10 Generator Technical Data:

| | |
|---------------------|---------------------------|
| Rating: | 135 kVA - 108 kW @ PF 0.8 |
| Voltage: | 400 Volts |
| Frequency: | 50 Hz |
| Speed: | 1500 RPM |
| Insulation: | Class "H" |
| No. of Bearing: | Single Bearing |
| Excitation: | Self-Excited |
| Over Speed: | 2250 RPM |
| Wave Form: | 2% |
| Voltage Regulator: | Mark V |
| Voltage Regulation: | ± 1% (steady state) |
| TIF: | 50 |
| Circuit breaker: | Genset Mounted - 3 Pole |

1.1.11 EMCP 4.1 Control Panel

Generator - mounted, EMCP4.1 (Electronic Modular Control Panel 4.1), includes the followings:

1.1.11.1 CONTROLS:

- Run / Auto / Stop control
- Speed and voltage adjust
- Local and remote emergency stop
- Remote start/stop
- Cycle crank

1.1.11.2 MONITORING:

- Coolant temperature
- Oil pressure
- Engine speed (RPM)
- Battery voltage
- Run hours
- Crank attempt and successful start counter
- Voltage (L-L, L-N)
- Current (Phase)
- Average Volt, Amp, Frequency

1.1.11.3 WARNING/SHUTDOWN INDICATION:

- Control switch not in auto (alarm)
- High coolant temp (alarm and shutdown)



Mansour House, 188 Bath Road
Slough SL1 3GA, Berkshire, UK

- Low coolant temp (alarm)
- Low coolant level (alarm)
- High engine oil temp (alarm and shutdown)
- Low, high, and weak battery voltage
- Over speed
- Over crank

1.1.11.4 INPUTS & OUTPUTS:

- Two dedicated digital inputs
- Six programmable digital inputs
- Six programmable form A dry contacts

1.1.11.5 PROTECTIVE RELAYING:

- Generator phase sequence
- Over/Under voltage (27/59)
- Over/Under frequency (81 O/U)

1.1.11.6 COMMUNICATION:

- Primary CAN data link

1.1.12 Sound Attenuated Enclosure

Sound Pressure Level dBA @ Full Load (Prime Power) = 67 ± 3 dBA @ 7m

DURABLE AND ROBUST CONSTRUCTION

- Manufactured from galvanized steel
- Advanced powder coating paint finish
- Single piece main roof
- Base frame extends beyond enclosure protecting against handling damage
- Minimal external fixings exposed to environment
- Zinc plated fasteners
- Corner posts and air handling units manufactured from high grade engineering thermoplastic



Enclosure pictured may include optional accessories

EXCELLENT SERVICE AND MAINTENANCE ACCESS

- Side hinged doors on both sides of the enclosure incorporating lift-off hinges at 45 degrees
- Radiator fill via removable, flus mounted rain cap fitted with compression seal
- Lube oil cooling water drains piped to base frame side rail, on exterior
- Removable end panels allow access to radiator, exhaust outlet and alternator rear
- Doors positioned for optimum access of frequently service items

SECURITY AND SAFETY

- Secure, lockable doors prevent unauthorized access to control panel, fuel fill and battery
- Emergency stop button mounted on exterior, convenient to control panel
- Cooling fan and battery charging alternator fully guarded

TRANSPORTABILITY

- Lifting and drag points on base frame facilitating handling from both sides