

1.1 CATERPILLAR Package Genset Type: DE165E0-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 Air to Air Charge cooled
Compression Ratio:	16:1
Genset Output:	150 kVA - 120 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

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1.1.10 Generator Technical Data:

Rating:	150 kVA - 120 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:	Less than 100
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)



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- 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) = 65 ± 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