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

1.1 CATERPILLAR Package Genset Type: DE13.5E3

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:	3 Cylinder
No. Of Strokes:	Four Strokes
Bore:	84 mm
Stroke:	90 mm
Displacement:	1.5 L
Induction:	Naturally Aspirated
Compression Ratio:	22.5:1
Genset Output:	12.5 kVA 10.0 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 Open set 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 governing system

1.1.9 Mounting System:

- Captive linear vibration isolators between base and engine-generator includes lifting provisions and termination points for coolant

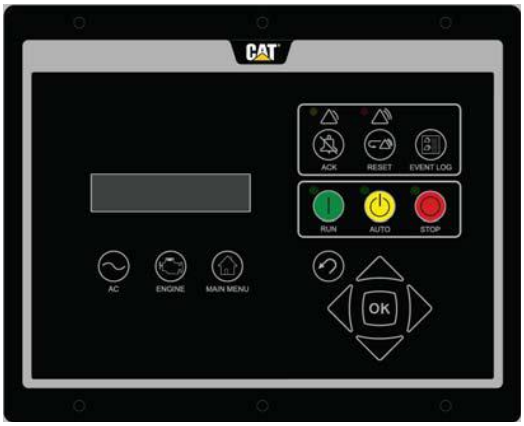
1.1.10 Generator Technical Data:

Rating:	12.5 kVA 10.0 kW @ 0.8 P.F.
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:	R220
Voltage Regulation:	± 1% (steady state)

TIF:	50
Circuit breaker:	Genset Mounted-3 Pole

1.1.11 Control Panel:

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



1.1.1.1 CONTROLS:

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

1.1.1.2 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

1.1.1.3 WARNING/SHUTDOWN INDICATION:

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

1.1.1.4 INPUTS & OUTPUTS:

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

1.1.1.5 PROTECTIVE RELAYING:

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

1.1.1.6 COMMUNICATION:

- Primary CAN data link

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1.1.12 Sound Attenuated Enclosure:

Sound Pressure Level dBA @ Full Load (Prime Power) = 65 ± 3 dBA @ 7m

FEATURES
DURABLE AND ROBUST CONSTRUCTION

- Galvanized steel protected by powder coat paint Single piece roof structure
- Base frame extends beyond enclosure protecting against handling damage
- Black finish stainless steel locks and hinges
- Zinc plated / stainless steel fasteners

Enclosure pictured may include optional accessories

EXCELLENT SERVICE AND MAINTENANCE ACCESS

- Side hinged doors on both sides of the enclosure opening to 180°
- Side hinged doors lift off at 90°
- Removable front and rear access panels
- Coolant drain piped to base frame, exterior to the enclosure

SECURITY AND SAFETY

- Control panel viewing via large viewing window in lockable enclosure door
- Emergency stop push button mounted on enclosure exterior below control panel
- Cooling fan and battery charging alternator fully guarded
- Fuel fill and battery can only be reached via lockable access doors
- Exhaust silencing system totally enclosed for operator safety

TRANSPORTABILITY

- Drag points on base frame facilitating handling from both sides