



Image shown may not reflect actual configuration

## 6.8 kVA – 22 kVA

### 50/60 Hz

## BENEFITS & FEATURES

### CAT® GENERATOR SET PACKAGE

Cat generator set packages have been fully prototype tested and certified torsional vibration analysis reports are available. The packages are designed to meet the NFPA 110 requirement for loading, conform to the ISO 8528-5 steady state and fill transient response requirements.

### CAT DIESEL ENGINES

The four-cycle Cat diesel engine combines consistent performance with excellent fuel economy and transient response that meets or exceeds ISO 8528-5. The engines feature a reliable, rugged, and durable design that has been field proven in thousands of applications worldwide in emergency standby installations.

### COOLING SYSTEM

The cooling system has been designed and tested to ensure proper generator set cooling, and includes the radiator, fan, belts, and all guarding installed as standard. Contact your Cat dealer for specific ambient and altitude capabilities.

### GENERATORS

The generators used on Cat packages have been designed and tested to work with the Cat engine. The generators are built with robust Class H insulation and provide industry-leading motor starting capability and altitude capabilities.

### CONTROL PANELS

The TCP 1000 is a compact Auto Mains (Utility) Failure Control Module that has been developed to provide an outstanding range of features. Monitoring engine speed, oil pressure, coolant temperature, frequency, voltage, current, power and fuel level, the modules will give comprehensive engine and alternator protection.

## SPECIFICATIONS

### ENGINE SPECIFICATIONS

Engine Model	Cat® C1.1, C1.5, C2.2 ACERT™
Cooling	Water Cooled
Aspiration	Naturally Aspirated Engines
Governor	Mechanical
Governing Class	ISO 8528
Emission Certifications Options	Non- Regulated & EU IIIA

### GENERATOR SET SPECIFICATIONS

Alternator Design	Brushless Single Bearing, 4 Pole
Stator	3/4 Pitch
Available Voltage Options	230V/240V/220V/380V/400V/415V
Frequency	50Hz or 60Hz
Engine Alternator Voltage	12V
Alternator Insulation & IP	Class H
Available Excitation Options	Self-Excited
Voltage Regulation, Steady State +/-	±1%

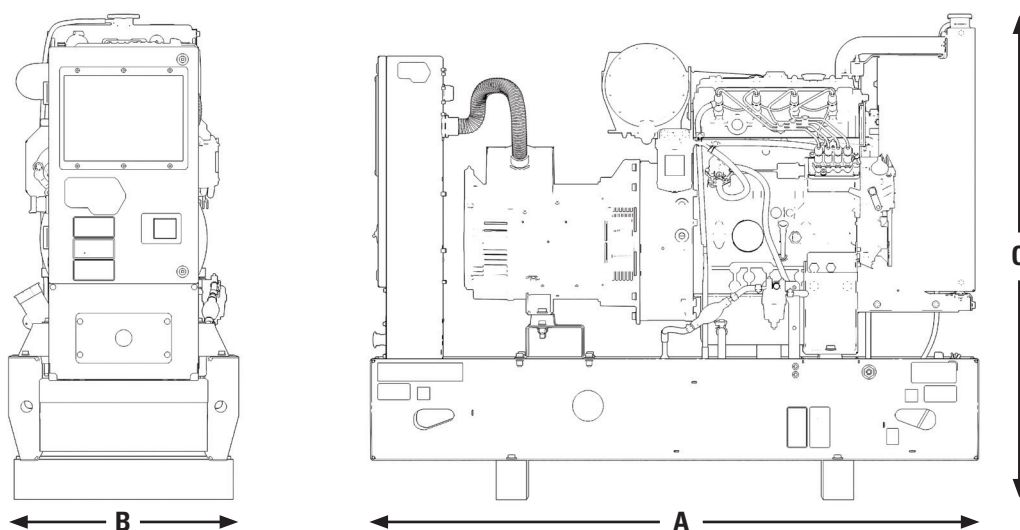
## STANDARD EQUIPMENT

Air inlet system	Air Cleaner Light duty with disposable paper filter
Control panels	EMCP4.2 control panel
Cooling system	Radiator and cooling fan with guards Coolant drain line with valve Fan drive, battery charging alternator drive Caterpillar Extended Life Coolant
Exhaust system	Stub pipe, gaskets, raincap & SAE exhaust flange for customer use; shipped loose
Fuel system	Standard open set fuel tank/base supplied Base, formed steel with single wall integral 8-hour fuel tank
Generators and generator attachments	12 leads IP23 Protection Voltage regulator (single phase sensing) Tower panel, IP22, bottom cable entry Circuit breaker, IEC, 3 pole, mounted in tower panel Segregated low voltage (AC/DC) wiring panel
Governing system	Mechanical Governing System
Lube system	Lubricating oil Oil drain line with valve
Mounting System	Skid base as standard Anti-vibration mounts
Starting/charging system	12V battery with rack and cables
General	Engine and alternator pre-paint, Caterpillar Yellow

## OPTIONAL EQUIPMENT

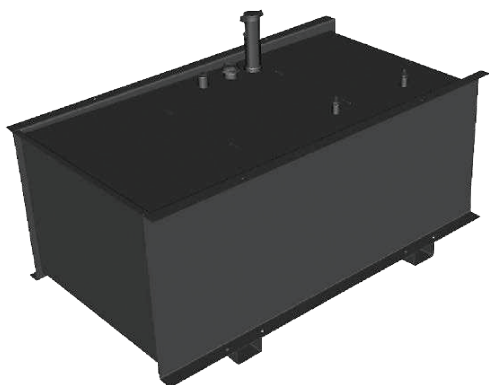
Control panels	Volt free contacts for common alarm Volt free contacts for genset running Battery charger Emergency stop with key
Circuit Breakers	4-Pole Circuit breaker
Enclosures	Sound attenuated enclosure (GALV) Single point lift for enclosure
Cooling system	Coolant Heater
Fuel System	Skidbase for open sets Skidbase for Enclosures DEFRA bunded fuel tank Low fuel level alarm Fuel transfer control 1000 hr extended service interval Base feet
Fuel storage	8 Hr Single & Dual Wall 8 Hr Dual Wall- Heavy Duty 24 Hr Dual Wall- Heavy Duty
Certification	Certification for CIS
European Certifications	Upgrade to STD set for "CE"
Alternator Options	Coastal insulation protection
Mounting system	Battery removal Industrial silencer removal Silencer installation kit
Accessories/ Miscellaneous	Radiator Stone Guard Packing Case - compact set Packing case - canopied set

## WEIGHTS & DIMENSIONS



**Note:** General configuration not to be used for installation. See general dimension drawings for detail.

Genset Model	Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Net (+Lube Oil) Kg (lb)	Wet (+ lube oil & coolant) Kg (lb)
<b>DE7.5E3S</b>	1500 (59.1)	860 (33.9)	895 (35.2)	237 (523)	242 (524)
<b>DE9.5E3</b>	1500 (59.1)	860 (33.9)	895 (35.2)	230 (508)	235 (519)
<b>DE9.5E3 (EUR-I)</b>	1500 (59.1)	860 (33.9)	895 (35.2)	237 (523)	242 (524)
<b>DE11E3S</b>	1500 (59.1)	860 (33.9)	895 (35.2)	313 (690)	319 (703)
<b>DE13.5E3</b>	1500 (59.1)	860 (33.9)	895 (35.2)	306 (674)	312 (688)
<b>DE16E0</b>	1500 (59.1)	860 (33.9)	895 (35.2)	333 (734)	339 (747)
<b>DE14E3S</b>	1500 (59.1)	860 (33.9)	895 (35.2)	374 (825)	381 (840)
<b>DE16E3S</b>	1500 (59.1)	860 (33.9)	895 (35.2)	382 (842)	389 (858)
<b>DE18E3</b>	1500 (59.1)	860 (33.9)	895 (35.2)	369 (814)	376 (829)
<b>DE22E3</b>	1500 (59.1)	860 (33.9)	895 (35.2)	382 (842)	389 (858)



*Image shown may not reflect actual configuration*

## Integral and Sub Base Fuel Tanks 6.8 – 22 kVA (B Series)

A range of fuel tanks are available with capacities from 55 – 1000 litres providing 10 – 250 hours running at 75% prime on the DE22E3 at 50 Hz. Single and dual wall options are available

### Features

- 3 mm steel construction
- Dual wall tanks have a secondary containment with capacity for 110% of fuel
- All bund joints are fully seam welded
- Polyester powder painted to ensure maximum scuff resistance
- Pressure tested to 2 psi
- Mechanical direct reading fuel level gauge
- 2 inch (50.8 mm) fuel fill neck
- Fuel feed and return lines to engine
- Tank baffles

### Options

- Low fuel level alarm
- Low fuel level shutdown
- High fuel level alarm
- Fuel transfer control



*Image shown may not reflect actual configuration*

## SOUND ATTENUATED ENCLOSURES

Level 1, Level 2 & Level 3  
6.8 – 22 kVA (B Series) Range

The compact design of the 6.8 – 22 kVA SA Level 1, Level 2 and Level 3 enclosures range provides the flexibility of optimum sound attenuation depending on requirements. Designed on modular principles, the enclosures will have lift off doors or vertically hinged doors providing optimal service and maintenance access.

The enclosures are constructed with galvanised steel, designed to resist corrosion and handling damage. Developed through continuing research and development by our specialist engineers, the enclosures are weather protective and incorporate internally mounted exhaust silencers.

All of the sound attenuated enclosures reduce sound levels to comply with the stage II levels of the European Community Directive 2000/14/EC, effective from 3 January 2006.

### Features

#### Durable and Robust Construction

- Base frame extends beyond enclosure protecting against handling damage
- Black finish stainless steel locks and hinges
- Zinc plated/stainless steel fasteners

#### Excellent Service and Maintenance Access

- Optional side hinged doors on both sides of the enclosure
- Optional lift off only doors on both sides of the enclosure
- Coolant drain piped to base frame, exterior to the enclosure

#### Security and Safety

- Control panel viewing via large viewing window
- Emergency stop push button mounted on enclosure exterior
- Cooling fan and battery charging alternator fully guarded
- Exhaust silencing system totally enclosed for operator safety

#### Transportability

- Drag points on base frame facilitating handling from both sides

## TCP 1000

The TCP 1000 is a compact Auto Mains (Utility) Failure Control Module that has been developed to provide an outstanding range of features. Monitoring engine speed, oil pressure, coolant temperature, frequency, voltage, current, power and fuel level, the modules will give comprehensive engine and alternator protection. This will be indicated on a large back-lit LCD icon display via an array of warning, electrical trip and shutdown alarms.



### Features:

- Large back-lit icon LCD display
- Heated display option
- 3-phase generator sensing
- 3-phase generator and mains (utility) sensing
- 600 V ph-ph nominal system compatibility
- Generator & load power monitoring (kW, kVA, kVA<sub>r</sub>, pf)
- Generator overload protection (kW)
- Configurable inputs & outputs
- Fuel and start outputs (configurable on CAN)
- Configurable DC, volt-free and staged loading outputs
- CAN & alternator speed sensing
- Engine speed protection, engine hours counter, engine preheat, engine run-time scheduler, engine idle control for start/stop
- Battery voltage monitoring
- Configurable event log (50)
- Configuration Suite PC Software

### Benefits:

- Displays information to the operator in a clear and concise format
- Ensures the display continues to operate in extreme cold weather conditions
- Provides true generator sensing
- Provides true generator and mains (utility) sensing
- Provides global flexibility
- Provides clear accurate power measurement information.
- Provides engine overload protection
- Provides multiple installation options
- Provides full monitoring flexibility
- Ensures the engine is fully monitored for improved operating performance
- Ensures the battery maintains enough power at all times
- Provides access to historical alarms and operational status
- Provides complete user-friendly configuration and easy-to-use high-level system control & monitoring

## FINANCING

Caterpillar offers an array of financial products to help you succeed through financial service excellence. Options include loans, finance lease, operating lease, working capital, and revolving line of credit. Contact your local Cat dealer for availability in your region.

## WORLDWIDE PRODUCT SUPPORT

Cat dealers provide extensive post-sale support including maintenance and repair agreements. Cat dealers have over 1,800 dealer branch stores operating in 200 countries. The Caterpillar<sup>®</sup> SOS<sup>SM</sup> program effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products.

# LET'S DO THE WORK.™