

Product Specifications For 3512B (50 Hz) 1320 -1625 KVA

Generator Set Specifications

Standby Rating	1625/1600/1500 kVA
Prime Power Rating	1500/1360 kVA
Emissions/Fuel Strategy	Low Fuel, Low Emissions
Voltage	380 to 415 Volts
Frequency	50 Hz
Speed	1500 rpm
Duty Cycle	Standby, Mission Critical, Prime
Maximum Rating	1625 kVA
Minimum Rating	1320 kVA

Engine Specifications

Engine Model	3512B TA, V-12, 4-Stroke Water-Cooled Diesel
Bore	170 mm
Stroke	190 mm
Displacement	51.8 l
Compression Ratio	14.0:1
Aspiration	TA
Fuel System	Electronic Unit Injection
Governor Type	ADEM™ A3

Generator Set Dimensions

Length - Minimum	5487 mm
Length - Maximum	5488 mm
Width - Minimum	2286 mm
Width - Maximum	2286 mm
Height - Minimum	2420 mm
Height - Maximum	2420 mm
Dry Weight - Genset (minimum)	11357 kg
Dry Weight - Genset (maximum)	11647 kg

3512B (50 Hz) 1320 -1625 KVA Standard Equipment

Air Inlet System

Angle element canister type air cleaner with service indicator

Air Inlet

Air cleaner

Cooling

Package mounted radiator (except C175)

Control Panel

Emergency stop button

Programmable protective relaying functions:

Over/under voltage (27 / 59)

kVA_r (per phase, average & percent)

kVA (per phase, average & percent)

Engine cool-down timer

Generator mounted - rear facing

Overcurrent (50 / 51)

Warning/shutdown with common LED indication of shutdowns for:

Low coolant level

DC volts

Generator phase sequence
Overspeed
Frequency (Hz)
Volts (L-L & L-N)
Reverse reactive power (kVAr) (32RV)
Text alarm/event descriptions
2 Programmable digital outputs
RPM
2 Programmable relay outputs (Form C)
Speed adjust
Alarm acknowledge
kVAr-hr (total)
Digital indication for:
Power factor (per phase & average)
Environmental sealed front face
Controls:
True RMS AC metering, 3 phase, +/-2% accuracy
Low oil pressure
kW (per phase, average & percent)
Engine cycle crank
Accessory module data link
Coolant temperature
Cat ECS 100
24 Volt DC operation
Over/under frequency (81 o/u)
Amps (per phase & average)
4 Programmable relay outputs (Form A)
Reverse power (kW) (32)
Operating hours
Communications
Oil pressure (psi, kPa or bar)
Serial annunciator module data link
kW-hr (total)
6 Programmable digital inputs
High coolant temperature
Failure to start (overcrank)
Low coolant temperature
Lamp test
Emergency stop
Auto/start/stop control
Customer data link (Modbus RTU)

Exhaust

Exhaust flange outlet

Fuel

Secondary fuel filters

Primary fuel filter with integral water separator
Fuel priming pump

Control System

Engine cool-down timer
DC volts
True RMS AC metering, 3-phase, +/-2% accuracy
High coolant temperature
Coolant temperature
Auto/start/stop control
Failure to start (overcrank)
Communications
Oil pressure
Emergency stop
Cat ECS 100
Overspeed
frequency (Hz)
Volts (L-L & L-N)
Engine cycle crank
Warnings/shutdown indicators
Speed adjust
Lamp test
24 Volt DC operation
RPM
4 programmable digital inputs
Low coolant level
Operating hours
Alarm acknowledge
Emergency stop pushbutton
Low oil pressure
Amps (per phase & average)
4 programmable digital outputs
Digital indication for:

Generator

IP23 Protection
Matched to the performance and output characteristics of Cat engines

Power Termination

Busbar

Generator System

Class H temperature rise at 40C ambient
3 phase brushless, Salient pole
6 Lead
Winding temperature detectors

NEMA Class H insulation
Random wound
Internal excitation (IE)
3-phase voltage sensing
Busbar connections
min/max exciter
Caterpillar's digital voltage regulator (CDVR)
RFI suppression

Literature

Parts book
Operation & Maintenance Manual

Cooling System

Caterpillar extended life coolant. (Not included with packages without radiator, installed SF44CTS, shipped loose radiators or heat exchangers)

JWAC

Coolant level sensors (Not included with packages without radiator)

Coolant drain line with valve

Radiator fan and fan drive

Fan and belt guards

Exhaust System

Dry exhaust manifold

Flanged faced outlet(s)

Fuel System

Fuel priming pump

Secondary fuel filters

Fuel cooler; not included with packages without radiator

Flexible fuel lines - shipped loose

Generators And Attachments

Note: 1800 Frames are form wound, permanent magnet excitation (PMG), with winding temp detectors

3 Phase voltage sensing

RFI suppression

Class H temperature rise at 40C ambient (125C prime / 150C standby)

Min / max exciter limiter

Exciter diode monitor

Busbar connections, top center mounted, top cable entry

3 Phase brushless, Salient pole

50 Hz models: IEC standard hole pattern

Caterpillar's digital voltage regulator (CDVR) includes:

Random wound

Generator set packages include: Regulator (CDVR)

Reactive droop capability

6 Leads
KVAR / PF modes
NEMA Class H insulation
Winding temperature detectors
Internal excitation (IE)
LV

Governing System

Woodward 2301A isochronous governor

Lube System

Lubricating oil
Gear type lube oil pump
Integral lube Oil cooler
Oil filter, filler and dipstick
Fumes disposal
Oil drain lines and valve

Mounting System

Rails - Engine/generator/radiator mounting
Rubber anti-vibration mounts - shipped loose

Starting / Charging System

Battery disconnect switch
Battery and battery rack w/cables
24 Volt electric starting motor

General

SAE standard rotation
Flywheel and Flywheel housing-SAE No. 00
RH service
Paint - Caterpillar yellow with high gloss black rails & radiator

3512B (50 Hz) 1320 -1625 KVA Optional Equipment

Air Inlet System

Air inlet protection
Remote air inlet adaptors
Dual element air cleaners

Exhaust

Exhaust mufflers

Generator

Anti-condensation heater
Internal excitation (IE)
Permanent magnet excitation (PMG)
Oversize and premium generators

Circuit Breakers

Cable entry options
2000, 2500, 3200 and 4000 Amp, 4 pole, IEC rated Circuit breakers
Busbar connections
Center posts busbars
Controls packaging - Enclosures
2000, 2500, 3200 and 4000 Amp, 3 pole, IEC rated Circuit breakers
Optional busbar power connections
EMAX breakers connections
EMAX Circuit breakers
Breaker harnesses

Power Termination

Circuit breakers, UL listed
Circuit breakers, IEC compliant

Control Panels

Annunciator modules
Customer connection mounting locations
Remote speed adjust
Local PC monitoring
Generator temperature monitoring
Auxiliary boxes
Governors
Customer interface options
EMCP 4.4
Ground (Automatically selected)
Mounting group - External box clips
Vandal proof panel door

Mounting

Rubber anti-vibration mounts
IBC isolators
Spring type vibration isolators

Starting/Charging

Oversize batteries
Air starting motor with control and silencer
Jacket water heater
Heavy duty starting system
Charging alternator

Battery chargers

Cooling System

Water level switch gauges

Optional radiator arrangements

Heat exchangers

European Certifications

European Union certification

EU Declaration of Conformity

European Directive genset, DoI (Declaration of Incorporation)

Eurasian Conformity (EAC) mark

Exhaust System

Mufflers

Muffler mounting kits

Through-wall installation kit

Flexible fittings

Fuel System

Primary fuel filter

Generators And Attachments

Generator conversion

1500 RPM, 380/400/415volts @ 50 Hz, 3 phase, random wound, Permanent magnet excitation (PMG), No. of leads = 6, pitch= 0.6667

1500 RPM, 380/400/415volts @ 50 Hz, 3 phase, Form wound, Permanent magnet excitation (PMG), No. of leads = 6, pitch= 0.6667

1500 RPM, 380/400/415volts @ 50 Hz, 3 phase, random wound, Internal excitation (IE), No. of leads = 6, pitch= 0.6667

Space heater

Instrumentation

Pyrometer and thermocouples

Lube System

Oil level reg-1 shallow pan

Electric prelube pumps

Manual prelube sump pumps

Mounting System

IBC vibration isolators

Spring type vibration isolators

Protection System

Explosion relief valves

Special Tests / Reports

PGS Test report @ 0.80 power factor

Neutral ground-LV

IBC seismic Certifications

PGS Test report @ 1.0 power factor

Neutral grounding connection

Starting / Charging System

Oversize battery set

Jacket water heaters

10 Amp Battery chargers

Ether starting aid

24 Volt dual electric starting motor

20 Amp Battery charger

General

Engine barring group