

Product Specifications For C175-20 (50 Hz)



Generator Set Specifications

Standby Rating	4000(no fan)/3900 kVA
Prime Power Rating	3600(no fan)/3500 kVA
Emissions/Fuel Strategy	Low Fuel, Low Emissions
Voltage	400 to 11000 Volts
Frequency	50 Hz
Speed	1500 RPM
Duty Cycle	Standby, Mission Critical, Prime, Continuous
Maximum Rating	4000 kVA
Minimum Rating	3150 kVA

Engine Specifications

Engine Model	C175-20 SCAC, V-20, 4-Stroke Water-Cooled Diesel
Bore	175 mm
Stroke	220 mm
Displacement	105.8 l
Compression Ratio	15.3:1
Aspiration	Turbo Aftercooled
Fuel System	Common Rail
Governor Type	ADEM  A4

Generator Set Dimensions

Length - Minimum	6711 mm
Length - Maximum	8402 mm
Width - Minimum	2162 mm
Width - Maximum	3247 mm
Height - Minimum	2224 mm
Height - Maximum	3827 mm
Dry Weight - Genset (minimum)	25000 kg
Dry Weight - Genset (maximum)	30000 kg

C175-20 (50 Hz) Standard Equipment

Air Inlet

4 x Single element canister air cleaners with service indicator(s).

Control Panel

Engine cycle crank
Oil pressure (psi, kPa or bar)
Digital Indicators
Coolant temperature
Environmental sealed front face
Frequency (Hz)
True RMS AC metering, 3-phase, +/-2% accuracy
Text alarm/event descriptions
Low coolant level
Volts (L-L & L-N)
Auto/start/stop control
Warning/shutdown Indicators:
Emergency stop pushbutton
Engine cool-down timer
DC volts
High coolant temperature
Operating hours
Low oil pressure

Cat ECS 100
Amps (per phase & average)
4 Programmable relay Inputs
Alarm acknowledge
4 Programmable relay output
Failure to start (overcrank)
Overspeed
Lamp test
24 Volt DC operation
Wall mounted controls
RPM

Cooling System

SCAC cooling
Coolant sensors
JW Inlet: 6" ANSI / JW Outlet: 5" Cat Flange
AC Inlet: 6" ANSI / AC Outlet: 3-1/2" ANSI

Exhaust

Dry exhaust manifold
Bolted flange (ANSI 6" & DIN 150) with bellow for each turbo (Qty 4). 50 Hz

Fuel

Filters x 3
Secondary/tertiary fuel filters
4 Micron spin on type
10 Micron spin on type
Engine mounted filters x 3
Primary fuel filter water/fuel water separator

Generators And Attachments

Salient pole
RFI suppression
Anti-condensation space heater
IEC platinum Stator RTDs
Form wound
NEMA Class H insulation
Voltage regulator
Reactive droop capability
Min/max Exciter limiter
3 Phase voltage sensing
Exciter diode monitor
6 Leads
3 Phase brushless
Right side extension box, bottom cable entry
Permanent magnet excitation (PMG)

Class H temperature rise at 40C ambient

Governing System

ADEM A4

Redundant shutdown (Overspeed protection through a duplicate speed sensing system)

Lube System

Oil drain lines and valve

Gear type lube oil pump

Oil filter, filler and dipstick

Integral lube Oil cooler

Lubricating oil

Fumes disposal

Mounting Systems

Rails - Engine/Generator

Rubber anti-vibration mounts - shipped loose

Starting / Charging System

Batteries and battery rack w/cables

Dual 24 volt electric starting motors

Battery disconnect switch

General

SAE standard rotation

Right hand servicing

Paint - Caterpillar yellow with high gloss black rails

C175-20 (50 Hz) Optional Equipment

Air Inlet Systems

Single element air cleaner

Control Panels

EMCP 4.4

Controller and MV and HV power connection locations

Load share module

Controller voltage and current sensing groups

Speed adjust

Annunciator modules

Customer interface options

Generator temperature monitoring

E-Stop

Interconnect harness

Generator harness
Modbus monitoring of packages
Vandal proof panel door

Cooling System

Package mounted radiators
Remote radiators
Fuel cooler

Crankcase Systems

Explosive relief valves
Crankcase ventilation system

Exhaust System

Front housing - Standby or mission critical
Front housing - Prime or continuous
Exhaust collectors/manifold
Mufflers (15, 25 and 34 dBA)

Fuel System

Primary fuel filter

Generators And Attachments

Medium voltage - 3000 Frames - 50 Hz, 3 phase, 1500 rpm, FW, PM, No of leads=6, Pitch 0.6667
Thermostat for space heater
Generator air cleaner
Differential current transformers - (5, 9 and 15 kV Class)

Instrumentation

Pyrometer and thermocouples

Lube System

Lube oil heater
Lube oil heater with Crankcase explosion relief valves
Drain group oil pans
Lubricating oil
Electric prelube pumps
Oil filters

Mounting System

Rubber anti-vibration mounts
Spring type linear vibration isolators
IBC vibration isolators - Shipped loose

Special Tests / Reports

Generator test report
PGS Test report @ 1.0 power factor
PGS Test report @ 0.8 power factor
Standard genset TVA (Torsional Vibration Analysis) report
Custom generator TVA report
Special test charge - Engine only
Genset fuel consumption test
Standard engine test charge

Starting / Charging System

24 Volt electric starting motor
Air starting motor
Air pressure regulator
Starter location covers
24 Volt battery set - Dry
20, 35 and 50 Amp Battery chargers
Charging alternators - Dry
Jacket water heaters

General

Special paint - 3500, Colors (other than Caterpillar yellow or high performance paints)
US aid emblem
Service tools
Engine barring group
Manual
Engine barring air powered
control GP - air powered bar group