

PRODUCT SPECIFICATIONS FOR C175-16 (60 HZ)

GENERATOR SET SPECIFICATIONS

Minimum Rating	2500 ekW
Maximum Rating	3100 ekW
Emissions/Fuel Strategy	Low Fuel, Tier 2
Voltage	480 to 13800 Volts
Frequency	60 Hz
Speed	1800 RPM
Duty Cycle	Standby, Mission Critical, Prime, Continuous

ENGINE SPECIFICATIONS

Engine Model	C175-16 SCAC, V-16, 4-Stroke Water-Cooled Diesel
Bore	6.89 in
Stroke	8.66 in
Displacement	6456.31 in ³
Compression Ratio	16:07:01
Aspiration	Turbo Aftercooled
Fuel System	Common Rail
Governor Type	ADEM™ A4

GENERATOR SET DIMENSIONS

Length - Minimum	241.6 in
Length - Maximum	312.9 in

Width - Minimum	83.1 in
Width - Maximum	113.7 in
Height - Minimum	87 in
Height - Maximum	134.3 in
Dry Weight - Genset (minimum)	42750 lb
Dry Weight - Genset (maximum)	50500 lb

C175-16 (60 HZ) STANDARD EQUIPMENT

AIR INLET SYSTEM

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

CONTROL PANEL

2 Programmable relay outputs (Form C)

Low coolant level

Over / under voltage

Coolant temperature

Serial annunciator module data link

Alarm acknowledge

Text alarm/event descriptions

Volts (L-L & L-N)

Reverse power

Over / under frequency

Environmental sealed front face

Programmable Protective Relaying Functions

Speed adjust

Generator phase sequence

Low coolant temperature

Generator mounted - rear facing

Overspeed

Controls

Frequency (Hz)

Engine cycle crank

Engine cool-down timer

Warning / Shutdown Indicators

Lamp test

2 Programmable digital outputs

6 Programmable digital inputs

High coolant temperature

Customer data link (Modbus RTU)

Auto / start / stop control

Emergency stop pushbutton

RPM

Digital Indicators

Communications

Accessory module data link

Oil pressure (psi, kPa or bar)

Low oil pressure

Overcurrent

Emergency stop

24 Volt DC operation

4 Programmable relay outputs (Form A)

Failure to start (overcrank)

True RMS AC metering, 3-phase, +/-2% accuracy

Power Factor (per phase & average)

Operating hours

DC volts

Amps (per phase & average)

EMCP 4.2B

Reverse reactive power

EXHAUST SYSTEM

Bolted flange, with bellow for each turbo

Exhaust flange outlet

FUEL SYSTEM

Engine mounted filters #REF!

Filters x 3

10 Micron spin on type

Secondary / tertiary fuel filters

4 Micron spin on type

Primary fuel filter water / fuel water separator

GENERATORS AND ATTACHMENTS

Right side extension box, bottom cable entry

IEC Platinum stator RTDs

Reactive droop capability

3 Phase voltage sensing

(MV) Busbar connections, right side extension box, bottom cable entry

Class F temperature rise at 40C ambient

Anti condensation space heater

NEMA Class H insulation

6 Leads

Class H temperature rise at 40C ambient

Voltage regulator:

Exciter diode monitor

Form wound

RFI suppression

(LV) Busbar connections, top/center mounted, top cable entry

3 Phase brushless

60 Hz models: NEMA standard hole pattern

Permanent magnet

Min / max exciter limiter

Salient Pole

GOVERNING SYSTEM

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

ADEM A4

LUBE SYSTEM

Oil filter, filler and dipstick

Integral lube oil cooler

Oil drain lines and valve

Fumes disposal

Lubricating oil

Prelube - required with prime, continuous, and standby

Gear type lube oil pump

MOUNTING SYSTEMS

Rails - Engine / generator

Rubber anti-vibration mounts (shipped loose)

Dual 24 volt electric starting motors

Battery disconnect switch

Batteries and battery rack w/cables

POWER TERMINATION

Busbar

SERVICE INSTRUCTIONS

Two PM inspections

GENERAL

Paint - Caterpillar yellow with high gloss black rails & radiator

SAE standard rotation

LH Service

Flywheel and flywheel housing-SAE No. 00

C175-16 (60 HZ) OPTIONAL EQUIPMENT

AIR INLET SYSTEM

Air inlet adapters

Dual element air cleaner

Single element air cleaner

Air inlet protection

CONTROL PANEL

Package mounted radiator

Automatically selected ground

Customer AC-DC connection mounting location - LV/MV

Load share governor

EMCP 4.3, EMCP 4.4

E-Stop

Frame boxes

Annunciator modules

Load share module / auxiliary plate and auxiliary box (LV)

Fuel cooler

EMCP mounting location - LV/MV

Modbus monitoring of packages

Customer interface options

EMCP 4.4 optional harness

EMCP voltage and current sensing groups

Remote radiators

REMOTE RADIATORS

Generator harness

Interconnect harness

Speed adjust

EMCP and MV and HV power connection locations

Raise lower switch

CRANKCASE SYSTEMS

Explosive relief valves

Crankcase ventilation system

EXHAUST SYSTEM

Mufflers

Exhaust support group

Weld flanges

Exhaust collectors / Manifold

Front housing - Prime or continuous

Front housing - Standby or mission critical

Aftercooler drain

FUEL SYSTEM

Primary fuel filter

GENERATORS AND ATTACHMENTS

Low voltage - 1800 and 3000 Frames - 60 Hz, 3 phase, 1800 rpm, FW, PM, No of leads=6, Pitch 0.6667

Medium voltage - 1800 and 3000 Frames - 60 Hz, 3 phase, 1800 rpm, FW, PM, No of leads=6, Pitch 0.6667

Conversion GP-Top cable entry

Low voltage - 1800 and 3000 Frames - 50 Hz, 3 phase, 1500 rpm, FW, PM, No of leads=6, Pitch 0.6667

Differential current transformers

Space heater kit

Medium voltage - 1800 and 3000 Frames - 50 Hz, 3 phase, 1500 rpm, FW, PM, No of leads=6, Pitch 0.6667

Thermostat for space heater

Generator air intake

INSTRUMENTATION

Pyrometer and thermocouples

LUBE SYSTEM

Drain group oil pans

Oil filters

Lube oil heater

Electric prelube pumps

Lubricating oil

MOUNTING SYSTEMS

IBC vibration isolators - Shipped loose

Spring type linear vibration isolators

Rubber anti-vibration mounts

POWER CONNECTIONS

Low voltage connection cable

Center post busbars (LV)

1800 Frame generator side / rear mounted busbars (MV)

Enclosures - Control packaging (LV)

Paralleling circuit breakers

1800 Frame generators circuit breaker

Neutral ground (LV)

Neutral ground (MV)

Cable entry options (LV)

Cable entry options (MV)

Masterpack breakers

Power connection covers (LV)

Harnesses (Breaker)

Masterpack breaker connections

Side / Rear mounted busbars (LV)

SPECIAL TESTS / REPORTS

IBC seismic certification

Special test charge - Engine only

PGS test report @ 0.8 power factor

Genset fuel consumption test

Standard genset TVA (Torsional vibration analysis) report

PGS test report @ 1.0 power factor

OSCOSH1 seismic certification

Custom genset TVA report

Generator test report

Standard engine test charge

STARTING / CHARGING SYSTEM

Heavy duty battery sets with rack

Charging alternators - Dry

Air pressure regulator

Starter location covers

24 Volt power distribution box

24 Volt electric starting motors

35 Amp battery chargers

24 Volt battery sets - Dry

20 Amp battery chargers

Jacket water heaters

50 Amp battery chargers

Air starting motor

Jacket water heater wiring groups

GENERAL

Special paint colors

Control GP - Air powered bar group

Barring group manual

Service tools - Engine barring group

Engine barring air powered